IEBC

2025 GROUP B PROPOSED CHANGES TO THE I-CODES

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2025 GROUP B – PROPOSED CHANGES TO THE INTERNATIONAL EXTINSTING BUILDING CODE

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TENTATIVE ORDER OF DISCUSSION
2025 PROPOSED CHANGES TO THE INTERNATIONAL EXISTING BUILDING CODE

The following is the tentative order in which the proposed changes to the code will be discussed at the public hearings. Proposed changes which impact the same subject have been grouped to permit consideration in consecutive changes.

Proposed change numbers that are indented are those which are being heard out of numerical order. Indentation does not necessarily indicate that one change is related to another. Proposed changes may be grouped for purposes of discussion at the hearing at the discretion of the chair. Note that some EB code change proposals may not be included on this list, as they are being heard by another committee.

Number Not Used:
EB28-25

EB5-25
EB6-25 Part I
    EB48-25
    EB63-25 Part I
    EB3-25
EB12-25
EB13-35
EB14-25
EB21-25
EB23-25
    EB30-25
    EB29-25
    EB27-25 Part I
    EB7-25
    EB9-25
EB24-25
    EB22-25
EB25-25
EB26-25
    EB15-25
EB33-25
EB35-25
EB37-25
    EB11-25
    EB36-25
    EB31-25
    G183-25 Part III
    EB34-25
EB38-25
EB39-25
EB44-25
EB45-25
EB46-25
EB47-25
EB49-25
EB51-25
EB55-25
EB72-25
EB73-25
    EB56-25
    EB4-25
EB78-25
EB79-25
EB81-25
    EB80-25
EB87-25
EB90-25
EB91-25
EB92-25
    EB88-25
    EB89-25
    EB83-25
    EB84-25
    EB85-25
EB93-25
    EB86-25
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EB96-25
EB98-25
    EB97-25
    EB94-25
EB107-25
EB108-25
EB109-25
EB110-25
    EB105-25
    EB106-25
EB111-25
    EB104-25
    EB103-25
    EB101-25
    EB100-25
    EB102-25
    EB99-25
    G94-25 Part II
EB116-25
EB117-25
    G23-25 Part II
    EB128-25 Part I
    EB132-25
    EB8-25
    EB2-25
EB119-25
    EB112-25
    EB114-25
    EB115-25
EB120-25
EB121-25
EB122-25
EB123-25
EB124-25
EB125-24
EB126-24
EB127-25
EB129-25
EB130-25
EB135-25
    EB10-25 Part I

EB1-25

IEBC: SECTION 202

Proponents: Gwenyth Searer, Wiss, Janney, Elstner Associates, Inc., representing myself (gsearer@wje.com)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

Revise as follows:

[BS] SUBSTANTIAL STRUCTURAL DAMAGE. A condition where any of the following apply:

1. The vertical elements of the lateral force-resisting system have suffered damage such that the lateral load-carrying capacity of any story in any horizontal direction has been reduced by more than 33 percent from its predamage condition.

2. The capacity of any vertical component carrying gravity load, or any group of such components, that has a tributary area more than 30 percent of the total area of the structure's floor(s) and roof(s) has been reduced more than 20 percent from its predamage condition, and the remaining capacity of such affected elements, with respect to all dead and live loads, is less than 75 percent of that required by the *International Building Code* for new buildings of similar structure, purpose and location.

3. The capacity of any structural component carrying snow load, or any group of such components, that supports more than 30 percent of the roof area of similar construction has been reduced more than 20 percent from its predamage condition, and the remaining capacity with respect to dead, live and snow loads is less than 75 percent of that required by the *International Building Code* for new buildings of similar structure, purpose and location.

For purposes of this definition, work done to implement repairs and work done to repair damage resulting from fire suppression efforts shall not be considered damage that reduces structural capacity.

Reason: After a fire, sheathing, including gypsum board and other architectural finishes, may be removed to address water staining and to reduce or eliminate the potential for mold growth. Oftentimes, wall sheathing and finishes are removed wholesale due to the concern that the potential for mold growth is a significant liability. It may also be easier for a restoration contractor to simply remove all of the finishes during the emergency cleanup rather than removing just the water-damaged portions. In many older structures, however, gypsum board sheathing and similar finishes are used to resist lateral loads. During the time between removal and replacement of these finishes, the temporary decrease in lateral load-carrying capacity can appear to be total in the affected areas. Since these finishes are being removed to water staining and/or to mitigate the potential for mold, it makes sense to exclude the transitory removal and replacement of these elements in any calculation of loss of lateral load-carrying capacity. This proposal adds this commonsense interpretation into the definition of *substantial structural damage*.

Note that this proposal does not exclude seismic damage to gypsum board and other sheathing from being considered in a loss-of-lateral-load-carrying-capacity calculation; it only addresses elements that are removed and replaced due to damage from fire-suppression efforts. Similarly, this proposal does not impact the substantial damage trigger that covers flood upgrades.

Bibliography: "Evaluation of the Effects of the Oakland's Earthquake Damage Repair Ordinance" by G.R. Searer, T.F. Paret, S.A. Freeman, and U.M., Gilmartin, pubished in the Proceedings of the 8th US Conference on Earthquake Engineering in San Francisco, California in April 2006.

Cost Impact: Decrease

Estimated Immediate Cost Impact:

It will clearly cost less, and in some cases a lot less, to repair water damage from fire-fighting efforts in like kind and quality rather than triggering wholesale upgrade of the lateral force resisting system and foundation. Although there have not been many studies that quantify the costs of upgrades of existing buildings, the proponent conducted a study of the Oakland Earthquake Damage Repair Ordinance that was implemented after the 1989 Loma Prieta Earthquake and found that repair+upgrade cost anywhere from 53 percent more to 3370 percent more, with several projects costing about 400 percent more, than if repair-only had been permitted. So for a project

that would only address the damaged elements and cost, say $100,000, the repair+upgrade might cost $500,000. Thus if the trigger could be softened in the case of water damage to gypsum board finishes that may also serve as lateral force resisting elements, that could potentially save $400,000. Although these savings seem high, one can imagine a moderately-sized fire on the top story of a large two- or three-story wood-framed apartment building that was built in the 1960s or 1970s. The water would make its way down through the structure, wetting gypsum board finishes that may serve as the lateral force resisting system. Rather than coring holes in the gypsum board at the top and bottom of each stud bay and forcing air through the cavity to dry it out, a contractor might decide to just demolish and replace the bottom two feet of all gypsum board walls on the ground floor (where the water tends to accumulate) or even just remove all of the gypsum board because gypsum board is inexpensive. But in doing so, someone might consider the structure to have incurred substantial structural damage due to the demolition that was performed, thus triggering upgrade of the lateral force resisting system.

Such a triggered upgrade might include removal of undamaged finishes in many areas; might include addition of plywood wall sheathing in areas that never had plywood, might include addition of holddowns, anchor bolts, and steel hardware; and might include upgrade of the undamaged foundation. Suddenly it doesn't seem so unlikely that one might save a substantial amount of money if allowed to do repair-only.

Estimated Immediate Cost Impact Justification (methodology and variables):

The study that quantified the cost differential of repair+upgrade compared to repair-only is this paper: "Evaluation of the Effects of the Oakland's Earthquake Damage Repair Ordinance" by G.R. Searer, T.F. Paret, S.A. Freeman, and U.M., Gilmartin, pubished in the Proceedings of the 8th US Conference on Earthquake Engineering in San Francisco, California in April 2006.

EB1-25

EB2-25

IEBC: SECTION 202 (New)

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Add new definition as follows:

CHARACTER DEFINING FEATURE. Visual aspects and physical features that comprise the appearance and historic significance of the historic building, such as the overall shape of the building, its materials, craftsmanship, decorative details, interior spaces and features, as well as the various aspects of its site and environment.

Reason: Current text uses a variety of unspecific terms to establish when special consideration will be given to historic materials.

The proposed term is used by the professionals working in the historic preservation field (local, state, national), and has been reviewed by the federal National Park Service, involved in all projects using historic tax incentives, and responsible for the National Register of Historic Places (NRHP): the ICC codes reference the NRHP to define what buildings are considered historic.

By adding the proposed definition, the code official is relieved of the responsibility of identifying historic materials and a single definition is used in lieu of current language that is vague and inconsistent:

1203.5 "…where it is demonstrated that they are historic finishes."

1203.8 "Historic glazing materials…"

1203.10.12 "…replaced in a manner that will preserve the historic appearance…"

1203.11 "… would damage the historic character…"

1203.14. "…lead to a loss of historic character…"

The proposed code change for Section 1201.2 Report, uses this definition in determining how historic materials would be identified and documented by the registered design professional or, in the case of buildings covered in the scope of the *International Residential Code*, by the owner.

This is one of a group of code change proposals related to IEBC Chapter 12 Historic buildings. While they work together, each proposal can stand on it's own merit. Please see the proposal for the reorganization of this chapter for a clean copy of what this chapter would look like if all the proposals pass.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is a definition. It does not change construction requirements.

EB3-25

IEBC: SECTION 202 (New)

Proponents: Tim Earl, GBH International, representing the Gypsum Association (tearl@gbhint.com)

2024 International Existing Building Code

Add new definition as follows:

GYPSUM BOARD. A type of gypsum panel product consisting of a noncombustible core primarily of gypsum with paper surfacing.
GYPSUM PANEL PRODUCT. The general name for a family of sheet products consisting essentially of gypsum complying with the standards listed in Tables 2506.2, 2507.2 and Chapter 35 of the International Building Code. Gypsum board and glass mat gypsum panels are all gypsum panel products.
GYPSUM SHEATING. Gypsum panel products specifically manufactured with enhanced water resistance for use as a substrate for exterior surface materials.
GYPSUM WALLBOARD. A gypsum board used primarily as an interior surfacing for building structures.

Reason: These definitions for terms used in the IEBC are identical to the definitions in the other codes. They are being added here for consistency across the codes.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is simply editorial with no cost impact.

Staff Analysis: This proposal is simply duplicating definitions from the IBC, IFC, and IMC. The definitions cannot be revised in this proposal as they are scoped to another committee.

EB4-25

IEBC: SECTION 202 (New)

Proponents: Jeanne Rice, representing NYSDOS (jeanne.rice@dos.ny.gov); Bryant Arms, representing NYS DOS (bryant.arms@dos.ny.gov); Stephen Van Hoose, representing NYS DOS (stephen.vanhoose@dos.ny.gov); Bryan Toepfer, representing NY DOS (bryan.toepfer@dos.ny.gov); Larissa DeLango, representing NYSDOS (larissa.delango@dos.ny.gov); China Clarke, representing New York State Dept of State (china.clarke@dos.ny.gov); Kevin Duerr-Clark, representing NYSDOS (kevin.duerr-clark@dos.ny.gov); Chad Sievers, NYS, representing NYS Dept of State (chad.sievers@dos.ny.gov)

2024 International Existing Building Code

Add new definition as follows:

RECONFIGURATION OF SPACE. A reconfiguration of space includes a change of a space from nonhabitable to *habitable*, the installation or removal of walls, partitions, or any other division of space, or the *change of use* of a space in which the new use could be considered an increase in hazard as determined by the *code official*.

Reason: The term "reconfiguration of space" is used in Chapter 9, but is not defined within any of the codes. This definition provides clarity as to what the term means.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal simply adds a definition for a term, it does not add code requirements.

EB5-25

IEBC: SECTION 301, 301.1, 301.2, 301.3, 301.4, 401.1, 401.1.1 (New), 401.1.1, [BS] 401.3, 501.1, 501.1.1, 601.1, 601.1.1, 601.2, 602.1, 603.1, 604.1, 605.1, 606.1, 607.1, 701.1, [BS] 701.3, 801.1, 801.2, 801.3, 801.4, 901.1, 901.2, 1001.1, 1101.1, 1101.4, 1201.1, 1301.1, 1301.1.1, 1401.1

Proponents: Steven Orlowski, Sundowne Building Code Consultants, LLC, representing Self (sorlowski@sbcc.codes); Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

CHAPTER 3
PROVISIONS FOR ALL COMPLIANCE METHODS

Revise as follows:

SECTION 301
~~ADMINISTRATION~~ GENERAL

301.1 ~~Applicability~~ Scope. ~~The *repair*~~ *Repair*, *alteration*, *change of occupancy*, *addition* or relocation of all *existing buildings* shall comply with Section 301.2, 301.3 or 301.4. The provisions of Sections 302 through 309 shall apply to ~~all~~ *alterations*, *repairs*, *additions*, relocation of structures and *changes of occupancy* regardless of compliance method.

301.1.1 Bleachers, folding and telescopic seating and grandstands. Existing bleachers, folding and telescopic seating and grandstands shall comply with ICC 300.

301.2 Repairs. *Repairs* shall comply with ~~the requirements of~~ Chapter 4.

301.3 Alteration, addition or change of occupancy. ~~The *alteration*~~ *Alteration*, *addition* or *change of occupancy* of all *existing buildings* shall comply with one of the methods listed in Section 301.3.1, 301.3.2 or 301.3.3 as selected by the applicant. Sections 301.3.1 through 301.3.3 shall not be applied in combination with each other.

Exception: Subject to the approval of the *code official*, *alterations* complying with the laws in existence at the time the building or the affected portion of the building was built shall be considered in compliance with the provisions of this code. New structural members added as part of the *alteration* shall comply with the *International Building Code*. This exception shall not apply to the following:

1. *Alterations* for accessibility required by Section 306.
2. *Alterations* that constitute *substantial improvement* in *flood hazard areas*, which shall comply with Sections 503.2, 701.3 or 1303.1.3.
3. Structural provisions of Section 304, Chapter 5 or to the structural provisions of Sections 706, 805 and 906.

301.3.1 Prescriptive compliance method. *Alterations*, *additions* and *changes of occupancy* complying with Chapter 5 of this code in buildings complying with the *International Fire Code* shall be considered in compliance with the provisions of this code.

301.3.2 Work area compliance method. *Alterations*, *additions* and *changes of occupancy* complying with the applicable requirements of Chapters 6 through 12 of this code shall be considered in compliance with the provisions of this code.

301.3.3 Performance compliance method. *Alterations*, *additions* and *changes of occupancy* complying with Chapter 13 of this code shall be considered in compliance with the provisions of this code.

301.4 Relocated buildings. Relocated buildings shall comply with ~~the requirements of~~ Chapter 14.

CHAPTER 4
REPAIRS

SECTION 401
GENERAL

401.1 Scope. *Repairs* shall comply with ~~the requirements of~~ this chapter. *Repairs* to *historic buildings* need only comply with Chapter 12.

Add new text as follows:

401.1.1 Nonapplicability. This chapter shall not apply to conditions listed in section 401.1.1.1 and 401.1.1.2.

Revise as follows:

~~**401.1.1**~~**401.1.1.1 Bleachers, folding and telescopic seating and grandstands.** *Repairs* to existing bleachers, folding and telescopic seating and grandstandsshall comply with ICC 300.

[BS] ~~**401.3**~~ **401.1.1.2 Flood hazard areas.** In *flood hazard areas*, *repairs* that constitute *substantial improvement* shall require that the building comply with Section 1612 of the *International Building Code*, or Section R306 of the *International Residential Code*, as applicable.

401.2 Compliance. The work shall not make the building less complying than it was before the *repair* was undertaken. Work on nondamaged components that is necessary for the required *repair* of damaged components shall be considered part of the *repair* and shall not be subject to requirements for alterations.

CHAPTER 5
PRESCRIPTIVE COMPLIANCE METHOD

SECTION 501
GENERAL

501.1 Scope. ~~The provisions of this chapter shall control the *alteration*~~ *Alteration, addition* and *change of occupancy* of *existing buildings* and structures, including *historic buildings* and structures ~~as referenced in Section 301.3.1~~ using the prescriptive compliance method shall comply with this chapter.

Delete without substitution:

~~**501.1.1 Compliance with other methods.** *Alterations*, *additions* and *changes of occupancy* to *existing buildings* and structures shall comply with the provisions of this chapter or with one of the methods provided in Section 301.3.~~

CHAPTER 6
CLASSIFICATION OF WORK

SECTION 601
GENERAL

Revise as follows:

601.1 Scope. ~~The provisions of this chapter shall be used in conjunction with Chapters 7 through 12 and shall apply to the *alteration*, *addition* and *change of occupancy* of *existing structures*, including historic structures, as referenced in Section 301.3.2. The work performed on an *existing building* shall be classified in accordance~~Classification of work area compliance method level shall comply with this chapter.

Delete without substitution:

~~**601.1.1 Compliance with other alternatives.** *Alterations*, *additions* and *changes of occupancy* to *existing structures* shall comply with the provisions of Chapters 7 through 12 or with one of the alternatives provided in Section 301.3.~~

Revise as follows:

601.2 Work area. The *work area*~~, as defined in Chapter 2,~~ shall be identified on the construction documents.

SECTION 602
ALTERATION—LEVEL 1

602.1 ~~Scope~~ General. Level 1 alterations include the removal and replacement or the covering of existing materials, elements, *equipment or fixtures* using new materials, elements, *equipment or fixtures* that serve the same purpose.

SECTION 603
ALTERATION—LEVEL 2

603.1 ~~Scope~~ General. Level 2 *alterations* include the addition or elimination of any door or window, the reconfiguration or extension of any system, or the installation of any additional equipment, and shall apply where the w*ork area* is equal to or less than 50 percent of the building area.

Exception: The movement or addition of nonfixed and movable fixtures, cases, racks, counters and partitions not over 5 feet 9 inches (1753 mm) in height shall not be considered a Level 2 *alteration*.

SECTION 604
ALTERATION—LEVEL 3

604.1 ~~Scope~~ General. Level 3 *alterations* apply where the *work area* exceeds 50 percent of the *building area*.

SECTION 605
CHANGE OF OCCUPANCY

605.1 ~~Scope~~ General. *Change of occupancy* provisions apply where the activity is classified as a *change of occupancy* as defined in Chapter 2.

SECTION 606
ADDITIONS

606.1 ~~Scope~~ General. Provisions for *additions* shall apply where work is classified as an *addition* as defined in Chapter 2.

SECTION 607
HISTORIC BUILDINGS

607.1 ~~Scope~~ General. *Historic building* provisions shall apply to buildings classified as historic as defined in Chapter 2.

CHAPTER 7
ALTERATIONS—LEVEL 1

SECTION 701
GENERAL

701.1 Scope. Level 1 *alterations* ~~as described in Section 602~~ shall comply with ~~the requirements of~~ this chapter. Level 1 *alterations* to *historic buildings* shall comply with this chapter, except as modified in Chapter 12.

Add new text as follows:

701.1.1 Nonapplicability. This chapter shall not apply to conditions listed in section 701.1.1.1.

Revise as follows:

[BS] ~~701.3~~ 701.1.1.1 Flood hazard areas. In *flood hazard areas*, *alterations* that constitute *substantial improvement* shall require that the building comply with Section 1612 of the *International Building Code*, or Section R306 of the *International Residential Code*, as applicable.

701.2 Conformance. An *existing building* or portion thereof shall not be altered such that the building becomes less safe than its existing condition.

Exception: Where the current level of safety or sanitation is proposed to be reduced, the portion altered shall conform to the requirements of the *International Building Code*.

CHAPTER 8
ALTERATIONS—LEVEL 2

SECTION 801
GENERAL

801.1 Scope. Level 2 *alterations* ~~as described in Section 603~~ shall comply with ~~the requirements of~~ this chapter and Chapter 7.

~~**Exception:** Buildings in which the reconfiguration is exclusively the result of compliance with the accessibility requirements of Section 306.7.1 shall be permitted to comply with Chapter 7.~~

Add new text as follows:

801.1.1 Nonapplicability. This chapter shall not apply to conditions listed in Sections 801.1.1.1 through 801.1.1.3.

801.1.1.1.1 Accessibility. Buildings in which the reconfiguration is exclusively the result of compliance with the accessibility requirements of Section 306.7.1 shall be permitted to comply with Chapter 7.

Delete without substitution:

~~**801.2 Alteration Level 1 compliance.** In addition to the requirements of this chapter, all work shall comply with the requirements of Chapter 7.~~

Revise as follows:

~~801.3~~ 801.1.1.2 **System installations.** Requirements related to *work area* are not applicable where the Level 2 *alterations* are limited solely to one or more of the following:

1. Mechanical systems, electrical systems, fire protection systems and abatement of hazardous materials.
2. Windows, hardware, operating controls, electrical outlets and signs.
3. *Alterations* undertaken for the primary purpose of increasing the accessibility of a *facility*.

~~801.4~~ 801.1.1.3 **Compliance.** New construction elements, components, systems and spaces shall comply with the requirements of the *International Building Code*.

Exceptions:

1. Where windows are added they are not required to comply with the light and ventilation requirements of the *International Building Code*.
2. Newly installed electrical equipment shall comply with the requirements of Section 806.
3. The length of dead-end corridors in newly constructed spaces shall only be required to comply with the provisions of Section 804.8.
4. The minimum ceiling height of the newly created habitable and occupiable spaces and corridors shall be 7 feet (2134 mm).
5. Where provided in below-grade transportation stations, existing and new escalators shall be permitted to have a clear width of less than 32 inches (815 mm).
6. New structural members and connections shall be permitted to comply with alternative design criteria in accordance with Section 302.

CHAPTER 9
ALTERATIONS—LEVEL 3

SECTION 901
GENERAL

901.1 Scope. Level 3 *alterations* ~~as described in Section 604~~ shall comply with ~~the requirements of~~ this chapter and Chapters 7 and 8. The requirements of Sections 802,803,804, and 805 shall apply within all work areas regardless of the number of tenants.

Add new text as follows:

901.1.1 Nonapplicability. This chapter shall not apply to conditions listed in Section 901.1.1.1.

901.1.1.1 Accessibility. Buildings in which the reconfiguration of space affecting exits or shared egress access is exclusively the result of compliance with the accessibility requirements of Section 306.7.1 shall not be required to comply with this chapter.

Delete without substitution:

~~**901.2 Compliance.** In addition to the provisions of this chapter, work shall comply with all of the requirements of Chapters 7 and 8. The requirements of Sections 802, 803, 804 and 805 shall apply within all *work areas* whether or not they include exits and corridors shared by more than one tenant and regardless of the occupant load.~~

~~**Exception:** Buildings in which the reconfiguration of space affecting exits or shared egress access is exclusively the result of compliance with the accessibility requirements of Section 306.7.1 shall not be required to comply with this chapter.~~

CHAPTER 10
CHANGE OF OCCUPANCY

SECTION 1001
GENERAL

Revise as follows:

1001.1 Scope. ~~The provisions of this chapter shall apply where a *change*~~ *Change of occupancy* shall comply with this chapter. ~~occurs, as defined in Section 202.~~

CHAPTER 11
ADDITIONS

SECTION 1101
GENERAL

1101.1 Scope. ~~An *addition* to a building or structure shall comply with~~Additions shall comply with this chapter and the International Codes as adopted for new construction. ~~without requiring the~~Unless required by this chapter, the *existing building* or structure shall not be required to comply with this chapter or the International codes. ~~any requirements of those codes or of these provisions, except as required by this chapter. Where an *addition* impacts the *existing building* or structure, that portion shall comply with this code.~~

1101.2 Creation or extension of nonconformity. An *addition* shall not create or extend any nonconformity in the *existing building* to which the *addition* is being made with regard to accessibility, structural strength, supports and attachments for nonstructural components, fire safety, means of egress or the capacity of mechanical, plumbing or electrical systems.

Exception: Nonconforming supports and attachments for nonstructural components that serve the *addition* from within the existing building need not be altered to comply with *International Building Code* Section 1613 unless the components are part of the *addition*'s life safety system or are required to serve an *addition* assigned to *Risk Category* IV.

[BS] 1101.3 Risk category assignment. Where the *addition* and the *existing building* have different occupancies, the *risk category* of each existing and added occupancy shall be determined in accordance with Section 1604.5.1 of the *International Building Code*. Where application of that section results in a higher *risk category* for the *existing building* compared wih the *risk category* for the *existing building* before the *addition*, such a change shall be considered a *change of occupancy* and shall comply with Chapter 10 of this code. Where application of that section results in a higher *risk category* for the *addition* compared with the *risk category* for the *addition* by itself, the *addition* and any systems in the *existing building* required to serve the *addition* shall comply with the requirements of the *International Building Code* for new construction for the higher *risk category*.

Delete without substitution:

~~**1101.4 Other work.** Any *repair* or *alteration* work within an *existing building* to which an *addition* is being made shall comply with the applicable requirements for the work as classified in Chapter 6.~~

CHAPTER 12
HISTORIC BUILDINGS

SECTION 1201
GENERAL

Revise as follows:

1201.1 Scope. ~~This chapter is intended to provide means for the preservation of *historic buildings.*~~*Historic buildings* shall comply with ~~the provisions of~~ this chapter. ~~relating to their *repair*, *alteration*,~~ relocation and ~~*change of occupancy*.~~

CHAPTER 13
PERFORMANCE COMPLIANCE METHODS

SECTION 1301
GENERAL

1301.1 Scope. ~~The provisions of this chapter shall apply to the *alteration*~~ *Alteration*, *addition* and *change of occupancy* of *existing structures*, including historic structures, using the performance compliance method shall comply with this chapter. ~~as referenced in Section 301.3.3. The provisions of this chapter are intended to maintain or increase the current degree of public safety, health and general welfare in *existing buildings* while permitting, *alteration*, *addition* and *change of occupancy* without requiring full compliance with Chapters 6 through 12, except where compliance with the prescriptive method of Chapter 5 or the work area method of other provisions of this code is specifically required in this chapter.~~

Delete without substitution:

~~**1301.1.1 Compliance with other methods.** *Alterations*, *additions* and *changes of occupancy* to *existing structures* shall comply with the provisions of this chapter or with one of the methods provided in Section 301.3.~~

CHAPTER 14
RELOCATED OR MOVED BUILDINGS

SECTION 1401
GENERAL

Revise as follows:

1401.1 Scope. ~~This chapter provides requirements for relocated~~ Relocated or moved structures, including *relocatable buildings* ~~as defined in Chapter 2~~shall comply with this chapter.

Reason: Currently, there is inconsistency among all the I-Codes in how the scoping sections are written at the beginning of each chapter. The Code Correlation Committee requested a task group be formed to review the scoping section in all the I-Codes and determine if there would be a way to harmonize both the language and style across the model codes. The Scoping Task Group was formed and consisted of several members from the various Code Action Committees and interested parties (some with no client interest). The task group reviewed each chapter of the I-codes and after careful consideration, developed a format that could be incorporated and repeated for all the I-Codes.

As you will see in the proposed changes above, most of the chapters began with a style and format that was already consistent and was only slightly changed to give the scoping a more authoritative infliction. Where the chapter contained no scoping provisions, the task group added scoping language based on the content of the chapter. Where the existing scoping sections provided a laundry list of what is contained in the chapter, these list were reformatted into a list form to make it easier for users to see what information was contained.

The Scoping Task group proposes that the recommended changes will improve the code by:
1. Create consistency in language used in the scope for all the I-Codes.
2. Creates a scoping section for chapters that did not have one before to clarify what is covered by the chapter.
3. Clarify the items covered and not covered in the chapter, using consistent format to send the user to different chapter(s) or code(s).
4. Remove redundant administrative language from existing scoping sections.
5. Where there were extensive number of items outlined in the scoping section, the items are now broken out into a list format to make it easier for the reader to indicate what is contained in the chapter.

To the best of the task groups knowledge the proposed changes are editorial in nature and no requirements not already addressed in the existing scoping or in the chapter being referenced were added. As these proposed changes are editorial, there is no cost impact on the cost of construction.

This proposal is submitted with the ICC Building Code Action Committee (BCAC).
BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

As stated in our reason statement, these proposed changes are editorial and there is no cost impact on the cost of construction.

EB5-25

EB6-25 Part I

IEBC: [A] 101.2, CHAPTER 3, SECTION 301, 301.1, 301.2, 301.3, 301.3.1, 301.3.2, 301.3.3, 301.4, SECTION 302, 302.2, 302.2.1, 302.3, 302.4, [BS] 302.4.1, 302.5, 302.1, CHAPTER 4, SECTION 401, 401.1, CHAPTER 5, SECTION 501, 501.1, 501.1.1, SECTION 506, CHAPTER 6, SECTION 601, 601.1, 601.1.1, SECTION 602, 602.1, 602.2, SECTION 603, 603.1, 603.2, SECTION 604, 604.1, 604.2, SECTION 605, 605.1, 605.2, SECTION 606, 606.1, 606.2, SECTION 607, 607.1, 607.2, CHAPTER 7, SECTION 701, 701.1, CHAPTER 8, SECTION 801, 801.1, 801.2, CHAPTER 9, SECTION 901, 901.1, 901.2, CHAPTER 10, SECTION 1001, 1001.1, CHAPTER 11, SECTION 1101, 1101.1, CHAPTER 12, SECTION 1201, 1201.1, SECTION 1204, SECTION 1206, CHAPTER 13, SECTION 1301, 1301.1, 1301.1.1, CHAPTER 14, SECTION 1401, 1401.1

Proponents: Grant Ullrich, City of Chicago, representing Self (grant.ullrich@cityofchicago.org)

THIS IS A 2 PART CODE CHANGE. PART I WILL BE HEARD BY THE EXISTING BUILDING CODE COMMITTEE. PART II WILL BE HEARD BY THE IBC GENERAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THESE COMMITTEES.

2024 International Existing Building Code

[A] 101.2 Scope. The provisions of this code shall apply to the *repair*, *alteration*, *change of occupancy*, *addition* to and relocation of *existing buildings*.

Exception: Detached one- and two-family dwellings and townhouses not more than three stories above grade plane in height with a separate means of egress, and their accessory structures not more than three stories above grade plane in height, shall comply with this code or the *International Residential Code.*

CHAPTER 3
PROVISIONS FOR ALL COMPLIANCE METHODS

Revise as follows:

SECTION 301
~~ADMINISTRATION~~ GENERAL

301.1 ~~Applicability~~ Scope. ~~The *repair*,~~ *Repairs*, *alterations*, *changes of occupancy*, *additions* to ~~or~~ and relocations of ~~all~~ *existing buildings* shall comply with Section 301.2, 301.3 or 301.4. ~~The provisions of~~ Sections 302 through 309 shall apply to all work. ~~*alterations*, *repairs*, *additions*, relocation of structures and *changes of occupancy* regardless of compliance method.~~

301.2 Repairs. *Repairs* shall comply with ~~the requirements of~~ Chapter 4.

301.3 Alterations, ~~addition or~~ changes of occupancy and additions. ~~The *alteration*,~~ *Alterations*, ~~*addition* or~~ *changes of occupancy* and *additions* ~~of all *existing buildings*~~ shall comply with one of the methods listed in Section 301.3.1, 301.3.2 or 301.3.3 as selected by the applicant. Sections 301.3.1 through 301.3.3 shall not be applied in combination with each other.

Exception: Subject to the approval of the *code official*, *alterations* complying with the laws in existence at the time the building or the affected portion of the building was built shall be considered in compliance with ~~the provisions of~~ this code. New structural members added as part of the *alteration* shall comply with the *International Building Code*. This exception shall not apply to the following:

1. *Alterations* for accessibility required by Section 306.
2. *Alterations* that constitute *substantial improvement* in *flood hazard areas*, which shall comply with Sections 503.2, 701.3 or 1303.1.3.
3. Structural provisions of Section 304, Chapter 5 or to the structural provisions of Sections 706, 805 and 906.

301.3.1 Prescriptive compliance method. *Alterations*, ~~*additions* and~~ *changes of occupancy* and *additions* complying with Chapter 5 ~~of~~

~~this code~~ in buildings complying with the *International Fire Code* shall be considered in compliance with ~~the provisions of~~ this code.

301.3.2 Work area compliance method. *Alterations*, ~~*additions* and~~ *changes of occupancy* and *additions* complying with the applicable requirements of Chapters 6 through 12 ~~of this code~~ shall be considered in compliance with ~~the provisions of~~ this code.

301.3.3 Performance compliance method. *Alterations*, ~~*additions* and~~ *changes of occupancy* and *additions* complying with Chapter 13 ~~of this code~~ shall be considered in compliance with ~~the provisions of~~ this code.

301.4 ~~Relocated buildings~~ Relocations. ~~Relocated buildings~~ Relocations of *existing buildings*, including *relocatable buildings*, shall comply with ~~the requirements of~~ Chapter 14.

Delete without substitution:

~~SECTION 302~~
~~GENERAL PROVISIONS~~

Revise as follows:

~~**302.2**~~ **301.5 Additional codes.** ~~Alterations, *repairs*,~~ *Repairs, alterations*, ~~*additions* and~~ *changes of occupancy*, *additions* to~~, or~~ and relocations ~~of,~~ of *existing buildings* ~~and structures~~ shall comply with the provisions for *repairs*, *alterations*, ~~*repairs, additions* and~~ *changes of occupancy*, *additions* ~~or~~ and relocations, respectively, in this code and the *International Energy Conservation Code*, *International Fire Code*, *International Fuel Gas Code*, *International Mechanical Code*, *International Plumbing Code*, *International Private Sewage Disposal Code*, *International Property Maintenance Code*, *International Residential Code* and NFPA 70. Where provisions of the other codes conflict with provisions of this code, the provisions of this code shall take precedence.

~~**302.2.1**~~ **301.5.1 Additional codes in health care.** In existing Group I-2 occupancies, ambulatory health care *facilities*, outpatient clinics and hyperbaric *facilities*, *repairs*, *alterations*, ~~*repairs*, *additions* and~~ *changes of occupancy*, ~~to, or~~ *additions* and relocations ~~of, *existing buildings* and structures~~ shall also comply with NFPA 99.

~~**302.3**~~ **301.6 Existing materials.** Materials already in use in a building in compliance with requirements or approvals in effect at the time of their erection or installation shall be permitted to remain in use unless determined by the code official to be *unsafe*.

~~**302.4**~~ **301.7 New and replacement materials.** Except as otherwise required or permitted by this code, materials permitted by the applicable code for new construction shall be used. Like materials shall be permitted for *repairs* and *alterations*, provided that *unsafe* conditions are not created. Hazardous materials shall not be used where the code for new construction would not permit their use in buildings of similar occupancy, purpose and location.

[BS] ~~**302.4.1**~~ **301.7.1 New structural members and connections.** New structural members and connections shall comply with the detailing provisions of the *International Building Code* for new buildings of similar structure, purpose and location.

Exception: Where alternative design criteria are specifically permitted.

~~**302.5**~~ **301.8 Occupancy and use.** Where determining the appropriate application of ~~the referenced sections of~~ this code, the occupancy and use of a building shall be determined in accordance with Chapter 3 of the *International Building Code*.

~~**302.1**~~ **301.9 Dangerous conditions.** The *code official* shall have the authority to require the elimination of conditions deemed *dangerous*.

CHAPTER 4
REPAIRS

SECTION 401

GENERAL

401.1 Scope. *Repairs* shall comply with ~~the requirements of~~ this chapter. *Repairs* to *historic buildings* need only comply with Chapter 12.

CHAPTER 5
PRESCRIPTIVE COMPLIANCE METHOD

SECTION 501
GENERAL

501.1 Scope. ~~The provisions of this chapter shall control the~~ Where the applicant has selected the prescriptive compliance method, *alteration*s*, addition*s and *change*s *of occupancy* ~~of~~ to *existing buildings* ~~and structures~~, including *historic buildings*, ~~and structures as referenced in Section 301.3.1~~ shall comply with this chapter.

Delete without substitution:

~~**501.1.1 Compliance with other methods.** *Alterations*, *additions* and *changes of occupancy* to *existing buildings* and structures shall comply with the provisions of this chapter or with one of the methods provided in Section 301.3.~~

Revise as follows:

SECTION 506
CHANGES OF OCCUPANCY

CHAPTER 6
~~CLASSIFICATION OF WORK~~ WORK AREA COMPLIANCE METHOD

SECTION 601
GENERAL

601.1 Scope. Where the applicant has selected the work area compliance method, ~~The provisions of this chapter shall be used in conjunction with Chapters 7 through 12 and shall apply to the~~ *alteration*s, ~~*addition* and~~ *change*s *of occupancy* and *additions* ~~of *existing structures*~~ to *existing buildings*, including ~~historic structures~~ *historic buildings*, ~~as referenced in Section 301.3.2~~ shall comply with this chapter. ~~The work performed on an *existing building* shall be classified in accordance with this chapter.~~

Delete without substitution:

~~**601.1.1 Compliance with other alternatives.** *Alterations*, *additions* and *changes of occupancy* to *existing structures* shall comply with the provisions of Chapters 7 through 12 or with one of the alternatives provided in Section 301.3.~~

Revise as follows:

SECTION 602
~~ALTERATION~~ALTERATIONS—LEVEL 1

602.1 ~~Scope~~ General. Level 1 alterations include the removal and replacement or the covering of existing materials, elements, *equipment or fixtures* using new materials, elements, *equipment or fixtures* that serve the same purpose.

602.2 ~~Application~~ Compliance. Level 1 *alterations* shall comply with ~~the provisions of~~ Chapter 7.

SECTION 603
~~ALTERATION~~ ALTERATIONS—LEVEL 2

603.1 ~~Scope~~ General. Level 2 *alterations* include the addition or elimination of any door or window, the reconfiguration or extension of any system, or the installation of any additional equipment, and shall apply where the w*ork area* is equal to or less than 50 percent of the building area.

Exception: The movement or addition of nonfixed and movable fixtures, cases, racks, counters and partitions not over 5 feet 9 inches (1753 mm) in height shall not be considered a Level 2 *alteration*.

603.2 ~~Application~~ Compliance. Level 2 *alterations* shall comply with ~~the provisions of Chapter 7 for Level 1 *alterations* as well as the provisions of Chapter 8~~ Chapters 7 and 8.

SECTION 604
~~ALTERATION~~ALTERATIONS—LEVEL 3

604.1 ~~Scope~~ General. Level 3 *alterations* apply where the *work area* exceeds 50 percent of the *building area*.

604.2 ~~Application~~ Compliance. Level 3 *alterations* shall comply with ~~the provisions of Chapters 7 and 8 for Level 1 and 2 *alterations*, respectively, as well as the provisions of Chapter 9~~ Chapters 7 through 9.

SECTION 605
~~CHANGE~~CHANGES OF OCCUPANCY

Delete without substitution:

~~**605.1 Scope.** *Change of occupancy* provisions apply where the activity is classified as a *change of occupancy* as defined in Chapter 2.~~

Revise as follows:

~~**605.2**~~ **605.1 ~~Application~~ Compliance.** *Changes of occupancy* shall comply with ~~the provisions of~~ Chapter 10.

SECTION 606
ADDITIONS

Delete without substitution:

~~**606.1 Scope.** Provisions for *additions* shall apply where work is classified as an *addition* as defined in Chapter 2.~~

Revise as follows:

~~**606.2**~~ **606.1 ~~Application~~ Compliance.** *Additions* to *existing buildings* shall comply with ~~the provisions of~~ Chapter 11.

SECTION 607
HISTORIC BUILDINGS

Delete without substitution:

~~**607.1 Scope.** *Historic building* provisions shall apply to buildings classified as historic as defined in Chapter 2.~~

Revise as follows:

~~**607.2**~~ **607.1** ~~**Application**~~ **Compliance.** Except as specifically provided ~~for~~ in Chapter 12 where the applicant elects to use Chapter 12, *historic buildings* shall comply with applicable provisions of ~~this code for the type of work being performed~~ Chapters 7 through 11.

CHAPTER 7
ALTERATIONS—LEVEL 1

SECTION 701
GENERAL

701.1 Scope. Level 1 *alterations* ~~as described in Section 602~~ shall comply with ~~the requirements of~~ this chapter. Level 1 *alterations* to *historic buildings* shall comply with this chapter, except as modified in Chapter 12.

CHAPTER 8
ALTERATIONS—LEVEL 2

SECTION 801
GENERAL

801.1 Scope. Level 2 *alterations* ~~as described in Section 603~~ shall comply with ~~the requirements of~~ this chapter and Chapter 7. Level 2 *alterations* to *historic buildings* shall comply with this chapter and Chapter 7, except as modified in Chapter 12.

Exception: Buildings in which the reconfiguration is exclusively the result of compliance with the accessibility requirements of Section 306.7.1 shall be permitted to comply with Chapter 7.

Delete without substitution:

~~**801.2 Alteration Level 1 compliance.** In addition to the requirements of this chapter, all work shall comply with the requirements of Chapter 7.~~

CHAPTER 9
ALTERATIONS—LEVEL 3

SECTION 901
GENERAL

Revise as follows:

901.1 Scope. Level 3 *alterations* ~~as described in Section 604~~ shall comply with ~~the requirements of~~ this chapter and Chapters 7 and 8. Level 3 *alterations* to *historic buildings* shall comply with this chapter and Chapters 7 and 8, except as modified in Chapter 12.

901.2 Compliance. ~~In addition to the provisions of this chapter, work shall comply with all of the requirements of Chapters 7 and 8.~~ The requirements of Sections 802, 803, 804 and 805 shall apply within all *work areas* whether or not they include exits and corridors shared by more than one tenant and regardless of the occupant load.

Exception: Buildings in which the reconfiguration of space affecting exits or shared egress access is exclusively the result of

compliance with the accessibility requirements of Section 306.7.1 shall not be required to comply with this chapter.

CHAPTER 10
~~CHANGE~~CHANGES OF OCCUPANCY

SECTION 1001
GENERAL

Delete and substitute as follows:

~~**1001.1 Scope.** The provisions of this chapter shall apply where a *change of occupancy* occurs, as defined in Section 202.~~

1001.1 Scope. *Changes of occupancy* shall comply with this chapter. *Changes of occupancy* to *historic buildings* shall comply with this chapter, except as modified in Chapter 12.

CHAPTER 11
ADDITIONS

SECTION 1101
GENERAL

Revise as follows:

1101.1 Scope. ~~An *addition* to a building or structure~~ *Additions* to *existing buildings* shall comply with the International Codes as adopted for new construction without requiring the *existing building* ~~or structure~~ to comply with any requirements of those codes or of these provisions, except as required by this chapter and Chapter 3. Where an *addition* impacts the *existing building* ~~or structure~~, that portion of the *existing building* shall comply with this code.

CHAPTER 12
HISTORIC BUILDINGS

SECTION 1201
GENERAL

1201.1 Scope. ~~This chapter is intended to provide means for the preservation of *historic buildings. Historic*~~ Where use of this chapter is elected by the applicant, *historic buildings* shall be permitted to comply with ~~the provisions of~~ this chapter instead of the corresponding provisions in Chapters 3, 4, 7 through 11 and 14. ~~relating to their *repair*, *alteration*, relocation and *change of occupancy*~~.

SECTION 1204
~~CHANGE~~CHANGES OF OCCUPANCY

SECTION 1206
~~RELOCATED BUILDINGS~~ RELOCATIONS

CHAPTER 13

PERFORMANCE COMPLIANCE ~~METHODS~~ METHOD

SECTION 1301
GENERAL

1301.1 Scope. ~~The provisions of this chapter shall apply to the~~ Where the applicant has selected the performance compliance method, *alteration*s, ~~*addition* and~~ *change*s *of occupancy* ~~of~~ and *additions* to *existing* ~~*structures*~~ *buildings*, including ~~historic structures~~ *historic buildings*, ~~as referenced in Section 301.3.3~~ shall comply with this chapter. ~~The provisions of this chapter are intended to maintain or increase the current degree of public safety, health and general welfare in *existing buildings* while permitting, *alteration*, *addition* and *change of occupancy* without requiring full compliance with Chapters 6 through 12, except where compliance with the prescriptive method of Chapter 5 or the work area method of other provisions of this code is specifically required in this chapter.~~

Delete without substitution:

~~**1301.1.1 Compliance with other methods.** *Alterations*, *additions* and *changes of occupancy* to *existing structures* shall comply with the provisions of this chapter or with one of the methods provided in Section 301.3.~~

Revise as follows:

CHAPTER 14
~~RELOCATED OR MOVED BUILDINGS~~ RELOCATIONS

SECTION 1401
GENERAL

1401.1 Scope. ~~This chapter provides requirements for relocated or moved structures~~ Relocations of *existing buildings*, including *relocatable buildings*, ~~as defined in Chapter 2~~ shall comply with this chapter. Relocations of *historic buildings* shall comply with this chapter, except as modified in Chapter 12.

EB6-25 Part I

EB6-25 Part II

IBC: CHAPTER 33, SECTION 3301, 3301.1; IEBC: CHAPTER 15, SECTION 1501, [BG] 1501.1

Proponents: Grant Ullrich, City of Chicago, representing Self (grant.ullrich@cityofchicago.org)

2024 International Building Code

CHAPTER 33
SAFEGUARDS DURING CONSTRUCTION

SECTION 3301
GENERAL

Revise as follows:

3301.1 Scope. ~~The provisions of this chapter shall govern safety~~ Safety during construction and the protection of adjacent public and private properties shall comply with this chapter. Fire safety during construction shall also comply with ~~the applicable provisions of~~ Chapter 33 of the *International Fire Code*.

2024 International Existing Building Code

CHAPTER 15
CONSTRUCTION SAFEGUARDS

SECTION 1501
GENERAL

Revise as follows:

[BG] 1501.1 Scope. ~~The provisions of this chapter shall govern safety~~ Safety during construction and the protection of adjacent public and private properties shall comply with this chapter. Fire safety during construction shall also comply with ~~the applicable provisions of~~ Chapter 33 of the *International Fire Code.*

Reason: This proposal is intended to complement and extend the work of the Scoping Task Group and IEBC scoping cleanup proposal submitted by BCAC (Proposal 11184).

The scoping task group aimed to create greater consistency in the scoping language for each chapter in the I-Codes and remove redundant administrative language from scoping sections.

This proposal builds on that work in the context of the IEBC by improving editorial consistency across the IEBC.

- For consistency in chapter and section titles and scoping section language, where types of work are referred to in scoping statements they are referred to in the plural (repairs vs repair and additions vs addition).
- “Relocations” instead of various formulations of “relocated and moved buildings.”
- Where the various types of work are listed, the items have been reordered to match the order in which they appear in the IEBC scoping section (101.2): repair, alteration, change of occupancy, addition [to], and relocation [of].
- Chapter 6, which is the charging chapter for the work area compliance method is retitled from “Classification of Work” to “Work Area Compliance Method” for consistency with the naming of Chapters 5 and 13.
- The title of Chapter 13 is changed from plural to singular to better reflect that the chapter contains a single method.
- The scoping statements for Level 2 and 3 alterations and changes of occupancy (801.1, 901.1, and 1001.1) are revised to indicate

the relationship to Chapter 12, similar to the language in the scoping statement for Level 1 alterations (701.1).

- The scoping statement for Chapter 14 (Relocations) is revised to indicate the relationship to Chapter 12, similar to the language in the scoping statement for Chapter 5 (Repairs).

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This change is editorial.

EB6-25 Part II

EB7-25

IEBC: CHAPTER 3, SECTION 301, 301.1, 302.1, 302.2, 301.2, 301.4, 301.3, 301.3.1, 301.3.2, 301.3.3, SECTION 302, 302.3, 302.4, 302.5, SECTION 302 (New), 301.1.1, 302.2.1, SECTION 303, 303.1, 303.1.1, 303.2, 303.2.1, 303.3, SECTION 303 (New), 303.1 (New), SECTION 309, 309.1, 309.2, 309.2.1, SECTION 305 (New), 305.1 (New), SECTION 307, 307.1, SECTION 308, 308.1, SECTION 307 (New), 306.7.2, 306.6.1, 306.6.1.1, SECTION 306, 306.1, 306.2, 306.2.1, 306.3, 306.4, 306.5, 306.6, 306.7, 306.7.1, 306.7.3, 306.7.4, 306.7.5, 306.7.6, 306.7.7, 306.7.8, 306.7.9, 306.7.10, 306.7.11, 306.7.11.1, 306.7.11.2, 306.7.11.3, 306.7.12, 306.7.13, 306.7.14, 306.7.15, 306.7.16, 306.7.17, 306.7.18, 306.7.18.1, 306.7.18.2, 306.7.18.3, 306.7.18.4, 306.7.18.5, 306.7.18.6, 306.7.18.7 , SECTION 309 (New), 309.1 (New), SECTION 310 (New), 310.1 (New), SECTION 304, [BS] 302.4.1, [BS] 304.1, [BS] 304.2, [BS] 304.3, [BS] 304.3.1, [BS] TABLE 304.3.1, [BS] 304.3.2, [BS] TABLE 304.3.2, SECTION 305, [BS] 305.1, SECTION 312 (New), 312.1 (New), SECTION 313 (New), 313.1 (New), SECTION 314 (New), 314.1 (New)

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

CHAPTER 3
PROVISIONS FOR ALL COMPLIANCE METHODS

Revise as follows:

SECTION 301
~~ADMINISTRATION~~ GENERAL

301.1 ~~Applicability~~ Scope. ~~The *repair*~~ *Repair*, *alteration*, *change of occupancy*, *addition* or relocation of all *existing buildings* shall comply with ~~Section 301.2, 301.3 or 301.4~~ this chapter. ~~The provisions of Sections 302 through 309 shall apply to all *alterations*, *repairs*, *additions*, relocation of structures and *changes of occupancy* regardless of compliance method.~~

Exceptions:

1. Detached one- and two-family *dwellings* and *townhouses* not more than three *stories above grade plane* in height with a separate *means of egress*, and their accessory structures not more than three *stories above grade plane* in height, shall comply with this code or the *International Residential Code*.
2. Existing buildings shall comply with this code or the *International Building Code*.

301.1.1 ~~302.1~~ Dangerous conditions. The *code official* shall have the authority to require the elimination of conditions deemed *dangerous*. Like materials shall be permitted for repairs and alterations, provided that unsafe conditions are not created. Hazardous materials shall not be used where the code for new construction would not permit their use in buildings of similar occupancy, purpose and location.

301.1.2 ~~302.2~~ Additional codes. *Alterations, repairs, additions* and *changes of occupancy* to~~, or relocation of,~~ *existing buildings* and structures shall comply with the provisions for existing buildings in ~~*alterations, repairs, additions* and *changes of occupancy* or relocation, respectively, in this code and~~ the *International Energy Conservation Code*, *International Fire Code*, *International Fuel Gas Code*, *International Mechanical Code*, *International Plumbing Code*, *International Private Sewage Disposal Code*, *International Property Maintenance Code*, *International Residential Code* and NFPA 70. Where provisions of the other codes conflict with provisions of this code, the provisions of this code shall take precedence.

301.2 Repairs. *Repairs* shall comply with ~~the requirements of~~ Chapter 4.

301.3 ~~301.4~~ Relocated buildings. Relocated buildings shall comply with ~~the requirements of~~ Chapter 5 ~~14~~.

301.4 ~~301.3~~ Alteration, addition or change of occupancy. ~~The *alteration*~~ *Alteration*, *addition* or *change of occupancy* of ~~all~~ *existing*

buildings shall comply with one of the methods listed in Section 301.4.1 ~~301.3.1~~, 301.4.2~~301.3.2~~ or 301.4.3~~301.3.3~~ as selected by the applicant. Sections 301.4.1 ~~301.3.1~~ through 301.4.3~~301.3.3~~ shall not be applied in combination with each other. The provisions of Sections 302 through 314 shall apply to all *alterations*, *additions*, or *changes of occupancy* regardless of compliance method.

Exception: ~~Subject to the approval of the *code official*, *alterations* complying~~ Existing buildings that comply with the building code and laws in ~~existence~~ effect at the time the building or the affected portion of the building was built shall be considered in compliance with the provisions of this code. New structural members added as part of the *alteration* shall comply with the *International Building Code*. This exception shall not apply to the following:

1. *Alterations* for accessibility required by Section 308 ~~306.~~
2. ~~*Alterations* that constitute *substantial*~~ *Substaintial improvement* in *flood hazard areas*, ~~which~~ shall comply with Sections 503.2, 701.3 or 1303.1.3.
3. Structural provisions with a change of occupancy shall comply with ~~of~~ Section 311 ~~304~~, Chapter 5 or ~~to the structural provisions of~~ Sections 706, 805 and 906.

301.4.1 ~~301.3.1~~ Prescriptive compliance method. *Alterations*, *additions* and *changes of occupancy* complying with Chapter 5 of this code in buildings complying with the *International Fire Code* shall be considered in compliance with the provisions of this code.

301.4.2~~301.3.2~~ Work area compliance method. *Alterations*, *additions* and *changes of occupancy* complying with the applicable requirements of Chapters 6 through 12 of this code shall be considered in compliance with the provisions of this code.

301.4.3~~301.3.3~~ Performance compliance method. *Alterations*, *additions* and *changes of occupancy* complying with Chapter 13 of this code shall be considered in compliance with the provisions of this code.

Delete without substitution:

~~SECTION 302~~
~~GENERAL PROVISIONS~~

~~**302.3 Existing materials.** Materials already in use in a building in compliance with requirements or approvals in effect at the time of their erection or installation shall be permitted to remain in use unless determined by the code official to be *unsafe*.~~

~~**302.4 New and replacement materials.** Except as otherwise required or permitted by this code, materials permitted by the applicable code for new construction shall be used. Like materials shall be permitted for *repairs* and *alterations*, provided that *unsafe* conditions are not created. Hazardous materials shall not be used where the code for new construction would not permit their use in buildings of similar occupancy, purpose and location.~~

~~**302.5 Occupancy and use.** Where determining the appropriate application of the referenced sections of this code, the occupancy and use of a building shall be determined in accordance with Chapter 3 of the *International Building Code*.~~

Add new text as follows:

SECTION 302
SPECIAL USE AND OCCUPANCY

Revise as follows:

302.1 ~~301.1.1~~ Bleachers, folding and telescopic seating and grandstands. Existing bleachers, folding and telescopic seating and grandstands shall comply with ICC 300.

302.2 ~~302.2.1~~ Additional codes in health care. In existing Group I-2 occupancies, ambulatory health care *facilities*, outpatient clinics and

hyperbaric *facilities*, *alterations*, *repairs*, *additions* and *changes of occupancy* to, or relocation of, *existing buildings* and structures shall also comply with NFPA 99.

Delete without substitution:

~~SECTION 303~~
~~STORM SHELTERS~~

Revise as follows:

302.3 ~~303.1 General~~ Storm shelters. This section applies to the design and construction of storm shelters for the purpose of providing protection during tornados, hurricanes and other severe windstorms.

302.3.1 ~~303.1.1~~ Construction. *Storm shelters* shall be constructed in accordance with Section 423 of the *International Building Code* and ICC 500 and shall be designated as hurricane shelters, tornado shelters or combined hurricane and tornado shelters.

Exception: *Storm shelters* added to critical emergency operations facilities or Group E occupancies are not required to comply with the travel distance in Section 423.4.2 or 423.5.2 of the *International Building Code*.

302.3.2 ~~303.2~~ Addition to a Group E occupancy. Where an *addition* is added to an existing Group E occupancy located in an area where the shelter design wind speed for tornados is 250 mph (402.3 km/h) in accordance with Figure 304.2(1) of ICC 500 and the occupant load in the *addition* is 50 or more, the *addition* shall have a *storm shelter* constructed in accordance with ICC 500.

Exceptions:

1. Group E day care *facilities*.
2. Group E occupancies accessory to places of religious worship.
3. *Additions* meeting the requirements for shelter design in ICC 500.

302.3.2.1 ~~303.2.1~~ Design occupant capacity. The required design occupant capacity of the *storm shelter* shall include all buildings on the site, and shall be the total occupant load of the classrooms, vocational rooms and offices in the Group E occupancy.

Exceptions:

1. Where an *addition* is being added on an existing Group E site, and where the *addition* is not of sufficient size to accommodate the required occupant capacity of the *storm shelter* for all of the buildings on-site, the *storm shelter* shall at a minimum accommodate the required capacity for the *addition*.
2. Where *approved* by the *code official*, the required design occupant capacity of the shelter shall be permitted to be reduced by the design occupant capacity of any existing *storm shelters* on the site.

302.3.3 ~~303.3~~ Occupancy classification. The occupancy classification for *storm shelters* shall be determined in accordance with Section 423.3 of the *International Building Code*.

Add new text as follows:

SECTION 303
BUILDING HEIGHT AND AREA

303.1 General. Building height and area shall comply with the International Building Code or the International Residential code for new construction or this code.

Revise as follows:

SECTION 304 ~~309~~
FIRE AND SMOKE PROTECTION FEATURES ~~ADDITIONS AND REPLACEMENTS OF EXTERIOR WALL COVERINGS AND EXTERIOR WALL ENVELOPES~~

Delete without substitution:

~~**309.1 General.** The provisions of Section 309 apply to all *alterations*, *repairs*, *additions*, relocations of structures and *changes of occupancy* regardless of compliance method.~~

Revise as follows:

304.1 ~~309.2~~ Additions and replacements. Where an *exterior wall covering* or *exterior wall envelope* is added or replaced, the materials and methods used shall comply with the requirements for new construction in Chapter 14 and Chapter 26 of the *International Building Code* if the added or replaced *exterior wall covering* or *exterior wall envelope* involves two or more contiguous stories and comprises more than 15 percent of the total wall area on any side of the building.

304.1.1 ~~309.2.1~~ Automatic sprinkler systems. Combustible *exterior wall covering* or combustible exterior wall envelopes shall not be added to an existing high-rise building that is not protected throughout with an automatic sprinkler system.

Exceptions:

1. Where such material is located on a single story and is less than 15 percent of the wall area on any side of the building.
2. Water-resistive barriers installed in accordance with Section 1402.6 of the *International Building Code*.

Add new text as follows:

SECTION 305
INTERIOR FINISHES

305.1 General. Interior finishes shall comply with the International Building Code or the International Residential code for new construction or this code.

Revise as follows:

SECTION 306 ~~307~~
AUTOMATIC SPRINKLER SYSTEMS AND FIRE ALARM AND DETECTION SYSTEMS ~~SMOKE ALARMS~~

306.1 ~~307.1~~ Smoke alarms. Where an *alteration*, *addition*, *change of occupancy* or relocation of a building is made to an *existing building* or structure of a Group R and I-1 occupancy, the *existing building* shall be provided with smoke alarms in accordance with the International Fire Code or Section R310 of the *International Residential Code*.

Exception: Work classified as Level 1 *Alterations* in accordance with Chapter 7.

Delete without substitution:

~~SECTION 308~~
~~CARBON MONOXIDE DETECTION~~

Revise as follows:

306.2 ~~308.1~~ Carbon monoxide detection. Where an *addition*, *alteration*, *change of occupancy* or relocation of a building is made to an *existing building* , the *existing building* shall be provided with carbon monoxide detection in accordance with the International Fire Code or Section R311 of the *International Residential Code*.

Exceptions:

1. Work involving the exterior surfaces of buildings, such as the replacement of roofing or siding, the addition or replacement of windows or doors, or the addition of porches or decks.
2. Installation, *alteration* or *repairs* of plumbing or mechanical systems, other than fuel-burning appliances.
3. Work classified as Level 1 *Alterations* in accordance with Chapter 7.
4. In Group I-2 occupancies, carbon monoxide detection is not required in each sleeping unit where carbon monoxide detection, which transmits an alarm signal to an *approved* location, is provided in each space containing a carbon monoxide source.

Add new text as follows:

SECTION 307
MEANS OF EGRESS

Revise as follows:

307.1 ~~306.7.2~~ Accessible means of egress. Accessible means of egress required by Chapter 10 of the *International Building Code* are not required to be added in existing *facilities*. Required accessible means of egress shall be maintained during construction, demolition, remodeling or *alterations* and *additions* to any occupied building.

Exception: Existing means of egress need not be maintained where *approved* temporary means of egress and accessible means of egress systems and *facilities* are provided.

307.2~~306.6.1~~ Accessible means of egress. In additions, at least ~~Not fewer than~~ one accessible means of egress from the *addition* shall be provided where required by Section 1009.1 of the *International Building Code*. An additional accessible means of egress shall be provided where an additional means of egress is required due to the *addition*. Where an accessible means of egress serving the *addition* is within the *existing building*, the following are required:

1. An accessible route from the *addition* to the *existing building* shall be provided.
2. The accessible means of egress in the *existing building* shall comply with Section 308 ~~306~~.7.1.

307.2.1~~306.6.1.1~~ Additions for elevators. Where an *addition* is being constructed exclusively to accommodate the installation of an elevator or elevators to improve accessibility, an accessible means of egress in accordance with Section 1009.1 of the *International Building Code* is not required where all of the following conditions are provided:

1. Two-way communication is provided at all elevator landings that are part of the *addition* in accordance with Section 1009.8 of the *International Building Code*.
2. Each elevator landing is on floor level with access to a horizontal exit or to a stairway with a width of not less than 36 inches (914 mm).
3. The elevator does not serve a required accessible floor or occupied roof more than four stories above or below the level of exit discharge.

SECTION 308~~306~~

ACCESSIBILITY ~~FOR EXISTING BUILDINGS~~

308 ~~306~~.1 ~~Scope~~ Accessibility. The provisions of Sections 308 ~~306~~.1 through 308.7.17~~306.7.16~~ apply to the accessibility for maintenance and *repair*, *change of occupancy*, *additions* and *alterations* to *existing buildings*, including those identified as *historic buildings*.

308 ~~306~~.2 General. A *facility* that is constructed or altered to be accessible shall be maintained accessible during occupancy. ~~Required accessible means of egress shall be maintained during construction, demolition, remodeling or *alterations* and *additions* to any occupied building.~~

~~**Exception:** Existing means of egress need not be maintained where *approved* temporary means of egress and accessible means of egress systems and *facilities* are provided.~~

308 ~~306~~.2.1 Prohibited reduction in accessibility. An *alteration* or *addition* that decreases or has the effect of decreasing accessibility of a building, *facility* or element thereof, below the requirements for new construction at the time of the *alteration* or *addition* is prohibited. The number of accessible elements need not exceed that required for new construction at the time of *alteration* or *addition.*

308 ~~306~~.3 Design. Buildings and *facilities* shall be designed and constructed to be accessible in accordance with this code and the *alteration* and *existing building* provisions in ICC A117.1, as applicable.

308 ~~306~~.4 Extent of application. An *alteration* of an existing *facility* shall not impose a requirement for greater accessibility than that which would be required for new construction.

308 ~~306~~.5 Change of occupancy. Where an existing building undergoes a *change of occupancy* that includes alterations, such alterations shall comply with Section 308 ~~306~~.7.

308 ~~306~~.6 Additions. Where additions contain dwelling or sleeping units, the accessibility requirements shall apply only to the quantity of the dwelling or sleeping units in the *addition*. Provisions for new construction shall apply to *additions*. An *addition* that affects the accessibility to, or contains an area of, a *primary function* shall comply with the requirements in Section 308 ~~306~~.7.1.

308 ~~306~~.7 Alterations. A *facility* that is altered shall comply with the applicable provisions in Chapter 11 of the *International Building Code,* ICC A117.1 and the provisions of Sections 308 ~~306~~.7.1 through 308 ~~306~~.7.18, unless *technically infeasible*. Where compliance with this section is *technically infeasible*, the *alteration* shall provide access to the maximum extent technically feasible.

308 ~~306~~.7.1 Alterations affecting an area containing a primary function. Where an *alteration* affects the accessibility to, or contains an area of, *primary function*, the route to the *primary function* area shall be accessible. Toilet facilities and drinking fountains serving the area of *primary function*, including the route from the area of primary function to these facilities, shall be accessible. Priority shall be given to the improvements affecting the accessible route to the primary function area.

Exceptions:

1. The cumulative costs of providing the accessible route, toilet facilities and drinking fountains are not required to exceed 20 percent of the costs of the *alterations* affecting the area of *primary function*.
2. This provision does not apply to *alterations* limited solely to windows, hardware, operating controls, electrical outlets and signs.
3. This provision does not apply to *alterations* limited solely to mechanical systems, electrical systems, installation or *alteration*of fire protection systems and abatement of hazardous materials.
4. This provision does not apply to *alterations* undertaken for the primary purpose of increasing the accessibility of a *facility*.
5. This provision does not apply to altered areas limited to Type B dwelling and sleeping units.

308.7.2~~306.7.3~~ Alteration of Type A units. The *alteration* to Type A individually owned dwelling units within a Group R-2 occupancy shall be permitted to meet the provision for a Type B dwelling unit.

308.7.3~~306.7.4~~ Type B units. Type B dwelling or sleeping units required by Section 1108 of the *International Building Code* are not required to be provided in *existing buildings* and *facilities* undergoing *alterations* where the *work area* is 50 percent or less of the aggregate area of the building.

308.7.4~~306.7.5~~ Entrances. Where an *alteration* includes *alterations* to an entrance that is not accessible, and the *facility* has an accessible entrance, the altered entrance is not required to be accessible unless required by Section 308 ~~306~~.7.1. Signs complying with Section 1112 of the *International Building Code* shall be provided.

308.7.5~~306.7.6~~ Accessible route. Exterior accessible routes, including curb ramps, shall be not less than 36 inches (914 mm) minimum in width.

308.7.6~~306.7.7~~ Elevators. Altered elements of existing elevators shall comply with ASME A17.1. Where the elevator emergency communication system is altered or replaced, that system shall comply with Section 3001.2 of the *International Building Code*. Such elements shall also be altered in elevators programmed to respond to the same hall call control as the altered elevator.

308.7.7~~306.7.8~~ Limited-use/limited-application elevators. Limited-use/limited-application elevators installed in accordance with ASME A17.1 shall be permitted as a component of an accessible route.

308.7.8~~306.7.9~~ Platform lifts. Vertical and inclined platform (wheelchair) lifts installed in accordance with ASME A18.1 shall be permitted as a component of an accessible route.

308.7.9~~306.7.10~~ Stairways and escalators in existing buildings. Where an escalator or stairway is added where none existed previously and major structural modifications are necessary for installation, an accessible route complying with Section 1104.4 of the *International Building Code* is required between levels served by such escalator or stairway.

308.7.10~~306.7.11~~ Determination of number of units. Where Chapter 11 of the *International Building Code* requires Accessible, Type A or Type B units and where such units are being altered or added within an *existing building*, the number of Accessible, Type A and Type B units shall be determined in accordance with Sections 30.7.10.1306.7.11.1 through 308.7.10.3~~306.7.11.3~~.

308.7.10.1~~306.7.11.1~~ Accessible dwelling or sleeping units. Where Group I-1, I-2, I-3, R-1, R-2 or R-4 dwelling or sleeping units are being altered or added within an *existing building* , the requirements of Section 1108 of the *International Building Code* for Accessible units apply only to the quantity of dwelling or sleeping units being altered or added.

308.7.10.2~~306.7.11.2~~ Type A dwelling or sleeping units. Where more than 20 Group R-2 dwelling or sleeping units are being altered or added within an *existing building* , the requirements of Section 1108 of the *International Building Code* for Type A units apply only to the quantity of the dwelling or sleeping units being altered or added.

308.7.10.3~~306.7.11.3~~ Type B dwelling or sleeping units. Where Group I-1, I-2, R-1, R-2, R-3 or R-4 dwelling or sleeping units are being altered or added within an *existing building* and where the *work area* is greater than 50 percent of the aggregate area of the building, the requirements of Section 1108 of the *International Building Code* for Type B units apply only to the quantity of the dwelling or sleeping units being altered or added.

308.7.11~~306.7.12~~ Toilet rooms. Where it is *technically infeasible* to alter existing toilet rooms to be accessible, one accessible single-user toilet room or one accessible family or assisted-use toilet room constructed in accordance with Section 1110.2.1 of the *International Building Code* is permitted. This toilet room shall be located on the same floor and in the same area as the existing toilet rooms. At the inaccessible toilet rooms, directional signs indicating the location of the nearest such toilet room shall be provided. These directional signs shall include the International Symbol of Accessibility, and sign characters shall meet the visual character requirements in accordance with ICC A117.1.

308.7.12~~306.7.13~~ Bathing rooms. Where it is *technically infeasible* to alter existing bathing rooms to be accessible, one accessible single-user bathing room or one accessible family or assisted-use bathing room constructed in accordance with Section 1110.2.1 of the *International Building Code* is permitted. This accessible bathing room shall be located on the same floor and in the same area as the

existing bathing rooms. At the inaccessible bathing rooms, directional signs indicating the location of the nearest such bathing room shall be provided. These directional signs shall include the International Symbol of Accessibility, and sign characters shall meet the visual character requirements in accordance with ICC A117.1.

308.7.13~~306.7.14~~ Additional toilet and bathing facilities. In assembly and mercantile occupancies, where additional toilet fixtures are added, not fewer than one accessible family or assisted-use toilet room shall be provided where required by Section 1110.2.1 of the *International Building Code*. In recreational *facilities*, where additional bathing rooms are being added, not fewer than one family or assisted-use bathing room shall be provided where required by Section 1110.2.1 of the *International Building Code*.

308.7.14~~306.7.15~~ Adult changing stations. Where additional toilet facilities are being added, in occupancies where adult changing stations are required by Section 1110.4.1 of the *International Building Code*, not fewer than one accessible family or assisted-use toilet room with an adult changing station shall be provided in accordance with Section 1110.4 of the *International Building Code*. The adult changing station shall be permitted to be located in a family or assisted-use toilet room or bathing room required by Section 308.7.11 ~~306.7.12~~, 308.7.12~~306.7.13~~ or 308.7.13~~306.7.14~~.

308.7.15~~306.7.16~~ Dressing, fitting and locker rooms. Where it is *technically infeasible* to provide accessible dressing, fitting or locker rooms at the same location as similar types of rooms, one accessible room on the same level shall be provided. Where separate-sex *facilities* are provided, accessible rooms for each sex shall be provided. Separate-sex *facilities* are not required where only unisex rooms are provided.

308.7.16~~306.7.17~~ Amusement rides. Where the structural or operational characteristics of an amusement ride are altered to the extent that the amusement ride's performance differs from that specified by the manufacturer or the original design, the amusement ride shall comply with requirements for new construction in Section 1111.4.8 of the *International Building Code.*

308.7.17~~306.7.18~~ Historic structures. Where compliance with the requirements for accessible routes, entrances or toilet rooms would threaten or destroy the historic significance of the historic structure, as determined by the authority having jurisdiction, the alternative requirements of Sections 308.7.17.1 ~~306.7.18.1~~ through 308.7.17.7 ~~306.7.18.7~~ for that element shall be permitted.

Exceptions:

1. Accessible means of egress required by Chapter 10 of the *International Building Code* are not required to be provided in historic structures.
2. The altered element or space is not required to be on an accessible route, unless required by Section 308.7.17.1 ~~306.7.18.1~~ or 308.7.17.2 ~~306.7.18.2.~~

308.7.17.1~~306.7.18.1~~ Site arrival points. Not fewer than one exterior accessible route, including curb ramps from a site arrival point to an accessible entrance, shall be provided and shall not be less than 36 inches (914 mm) minimum in width.

308.7.17.2~~306.7.18.2~~ Multiple-level buildings and facilities. An accessible route from an accessible entrance to public spaces on the level of the accessible entrance shall be provided.

308.7.17.3~~306.7.18.3~~ Entrances. Where an entrance cannot be made accessible in accordance with Section 308 ~~306~~.7.5, an accessible entrance that is unlocked while the building is occupied shall be provided; or, a locked accessible entrance with a notification system or remote monitoring shall be provided.

Signs complying with Section 1112 of the *International Building Code* shall be provided at the public entrances and the accessible entrance.

308.17.4~~306.7.18.4~~ Toilet facilities. Where toilet rooms are provided, not fewer than one accessible single-user toilet room or one accessible family or assisted-use toilet room complying with Section 1110.2.1 of the *International Building Code* shall be provided.

308.7.17.5~~306.7.18.5~~ Bathing facilities. Where bathing rooms are provided, not fewer than one accessible single-user bathing room or one accessible family or assisted-use bathing rooms complying with Section 1110.2.1 of the *International Building Code* shall be provided.

308.7.17.6~~306.7.18.6~~ Type A units. The *alteration* to Type A individually owned dwelling units within a Group R-2 occupancy shall be permitted to meet the provision for a Type B dwelling unit.

308.7.17.7~~306.7.18.7~~ Type B units. Type B dwelling or sleeping units required by Section 1108 of the *International Building Code* are not required to be provided in *historic buildings*.

Add new text as follows:

SECTION 309
INTERIOR ENVIRONMENTS

309.1 General. Interior environments shall comply with the International Building Code or the International Residential code for new construction or this code.

SECTION 310
ENERGY CONSERVATION

310.1 Energy Conservation. Energy conservation shall comply with Section 301.1.2.

Revise as follows:

SECTION SECTION 311~~304~~
STRUCTURAL ~~DESIGN LOADS AND EVALUATION AND DESIGN PROCEDURES~~

[BS] 311.1 ~~302.4.1~~ New structural members and connections. New structural members and connections shall comply with the detailing provisions of the *International Building Code* for new buildings of similar structure, purpose and location.

Exception: Where alternative design criteria are specifically permitted.

[BS] 311.2 ~~304.1~~ Live loads. Where an *addition* or *alteration* does not result in increased design live load, existing gravity load-carrying structural elements shall be permitted to be evaluated and designed for live loads *approved* prior to the *addition* or *alteration*. If the *approved* live load is less than that required by Section 1607 of the *International Building Code*, the area designated for the nonconforming live load shall be posted with placards of *approved* design indicating the *approved* live load. Where the *addition* or *alteration* results in increased design live load, the live load required by Section 1607 of the *International Building Code* shall be used.

[BS] 311.3 ~~304.2~~ Snow loads on adjacent buildings. Where an *alteration* or *addition* changes the potential snow drift effects on an adjacent building, the *code official* is authorized to enforce Section 7.12 of ASCE 7.

[BS] 311.4 ~~304.3~~ Seismic evaluation and design procedures. Where required, seismic evaluation or design shall comply with the procedures and criteria in this section, regardless of which compliance method is used. The scope of the required evaluation or design shall be as indicated in applicable provisions of Chapters 4 through 12.

[BS] 311.4.1~~304.3.1~~ Full seismic criteria. Where required, seismic evaluation or design shall comply with one of the following methodologies, which shall not be applied in combination with each other:

1. Section 1613 of the *International Building Code*. Where the existing seismic force-resisting system is a type that can be designated as "Ordinary," values of R, Ω_0 and C_d used for analysis in accordance with Chapter 16 of the *International Building Code* shall be those specified for structural systems classified as "Ordinary" in accordance with Table 12.2-1 of ASCE 7, unless it can be demonstrated that the structural system will provide performance equivalent to that of a "Detailed," "Intermediate" or "Special" system.
2. ASCE 41, using a Tier 3 procedure and both levels of the two-level performance objective in Table 311.4.1 ~~304.3.1~~ for the applicable *risk category*.

[BS] TABLE 311.4.1~~304.3.1~~ PERFORMANCE OBJECTIVES FOR USE IN ASCE 41 FOR COMPLIANCE WITH FULL SEISMIC CRITERIA

RISK CATEGORY (Based on IBC Table 1604.5)	STRUCTURAL PERFORMANCE LEVEL FOR USE WITH BSE-1N EARTHQUAKE HAZARD LEVEL	STRUCTURAL PERFORMANCE LEVEL FOR USE WITH BSE-2N EARTHQUAKE HAZARD LEVEL
I	Life Safety (S-3)	Collapse Prevention (S-5)
II	Life Safety (S-3)	Collapse Prevention (S-5)
III	Damage Control (S-2)	Limited Safety (S-4)
IV	Immediate Occupancy (S-1)	Life Safety (S-3)

[BS] 311.4.2 ~~304.3.2~~ Reduced seismic criteria. Where required, seismic evaluation or design shall comply with one of the following methodologies, which shall not be applied in combination with each other:

1. Section 1613 of the *International Building Code* using 75 percent of the prescribed forces. Values of R, Ω_0 and C_d used for analysis shall be as specified in Section 311.4.1 ~~304.3.1~~ of this code.
2. Applicable chapters of Appendix A of this code, for structures or portions of structures specified in Items 2.1 through 2.4 subject to the limitations of the respective chapter.
   2.1. Chapter A1 for unreinforced masonry bearing wall buildings assigned to *Risk Category* I or II.
   2.2. Chapter A2 for the wall anchorage system in reinforced concrete and reinforced masonry wall buildings with flexible diaphragms assigned to *Risk Category* I or II.
   2.3. Chapter A3 for cripple walls and sill plate anchorage in residential buildings of light-frame wood construction assigned to *Risk Category* I or II.
   2.4. Chapter A4 for soft, weak or open-front wall conditions in multiple-unit residential buildings of wood construction assigned to *Risk Category* I or II.
3. ASCE 41, using the performance objective in Table 311.4.2 ~~304.3.2~~ for the applicable *risk category*.

[BS] TABLE 311.4.2 ~~304.3.2~~ PERFORMANCE OBJECTIVES FOR USE IN ASCE 41 FOR COMPLIANCE WITH REDUCED CRITERIA FORCES

RISK CATEGORY (Based on IBC Table 1604.5)	STRUCTURAL PERFORMANCE LEVEL FOR USE WITH BSE-1E EARTHQUAKE HAZARD LEVEL	STRUCTURAL PERFORMANCE LEVEL FOR USE WITH BSE-2E EARTHQUAKE HAZARD LEVEL
I	Life Safety (S-3). See Note a	Collapse Prevention (S-5)
II	Life Safety (S-3). See Note a	Collapse Prevention (S-5)
III	Damage Control (S-2). See Note a	Limited Safety (S-4). See Note b
IV	Immediate Occupancy (S-1)	Life Safety (S-3). See Note c

a. For Risk Categories I, II and III, the Tier 1 and Tier 2 procedures need not be considered for the BSE-1E earthquake hazard level.

b. For Risk Category III, the Tier 1 screening checklists shall be based on the Collapse Prevention, except that checklist statements using the Quick Check provisions shall be based on *MS*-factors that are the average of the values for Collapse Prevention and Life Safety.

c. For Risk Category IV, the Tier 1 screening checklists shall be based on Collapse Prevention, except that checklist statements using the Quick Check provisions shall be based on *MS*-factors for Life Safety.

Delete without substitution:

~~SECTION 305~~
~~IN-SITU LOAD TESTS~~

Revise as follows:

[BS] **311.5** ~~**305.1 General**~~ **In-situ load tests.** Where used, in-situ load tests shall be conducted in accordance with Section 1708 of the *International Building Code*.

Add new text as follows:

SECTION 312
ELECTRICAL

312.1 Electrical. Electrical provisions shall comply with Section 301.1.2.

SECTION 313
MECHANICAL

313.1 Mechanical. Mechanical systems shall comply with Section 301.1.2.

SECTION 314
PLUMBING

314.1 Plumbing. Plumbing systems shall comply with Section 301.1.2.

Attached Files

- **BCAC IEBC Chaper 3 clean draft.pdf**
  https://www.cdpaccess.com/proposal/11299/34350/files/download/9915/

Reason: This is a relocation and clarification of requirements explaining the use of the IEBC and the application of Chapter 3 to all methods. It is not intended to have any change to construction requirements.

301.1 Scope - this is a simplification. The exceptions allow for existing buildings to comply with new construction. The deleted sentence is addressed in Section 301.4.

301.1.1 Dangerous conditions - the added sentence was moved from existing Section 302.4

301.2 Repairs and 301.3 Relocation - these are chapter that are separate from the methods for alterations and additions.

301.4 Alterations, addition or change of occupancy - the new last sentence clarifies the application of the common elements.

302.3, 302.4 and 302.5 - these are redundant statements that addressed elsewhere in the chapter.

Over time, provisions have been added to Chapter 3 in a random manner. This organization is the same as what is proposed for IRBC Chapter 10 and follows the basic organization of the IBC.

Section 302 Special use and occupancies - this will bleachers, health care, storm shelters currently in Chapter 3.

Section 303 Building Height and area - for building height and area there are provisions in some of the methods that are different than

new construction. At this time, this is a place holder so that general items that would be applicable would have a place to go to.

Section 304 Fire and smoke protection features (fire safety items) - this will include exterior wall coverings, currently in Chapter 3. The current Section 309.1 is addressed in the main paragraphs, so this is deleted as redundant.

Section 305 Interior Finishes - for interior finishes there are provisions in some of the methods that are different than new construction. At this time, this is a place holder so that general items that would be applicable would have a place to go to.

Section 306 Automatic sprinkler systems and fire alarm and detections systems - this includes smoke alarms and carbon monoxide detection already in Chapter 3.

Section 307 Means of egress - the accessible means of egress provisions are in Chapter 10 of the IBC. To make them easier to locate, the have been moved out from within the accessibility requirement. There are means of egress provisions currently found in the other methods. Some suggested to move hear under other changes are emergency escape and rescue openings, window guards, fire escapes.

Section 308 Accessibility - this includes the accessibility requirements currently in Chapter 3.

Section 309 Interior environments - for interior finishes there are provisions in some of the methods that are different than new construction. At this time, this is a place holder so that general items that would be applicable would have a place to go to. Some suggested to move hear under other changes are classroom acoustics.

Section 310 Energy conservation - The IECC is referenced in Section 301.2.2 and includes existing building provisions. This section is here to be consistent with other chapters.

Section 311 - Structural - this include the structural loads and in-situ loads currently in Chapter 3

Section 312 through 314 - there are provisions in the other codes for existing building rather than in the IEBC. This pointer is a reference to the additional codes

This proposal is part of a package of code changes to expand and reorganize Chapter 3 to increase understanding of the options available in the IEBC. Attached is a clean copy of Chapter 3 if all the associated proposals are accepted.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).
BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is a reorganization. Please see the reason statement.

EB7-25

EB8-25

IEBC: CHAPTER 3, SECTION 301, 301.1, 301.1.1, 301.2, 301.3 (New), 301.4, 301.3, 301.3.1, 301.3.2, 301.3.3, SECTION 306, 306.1, CHAPTER 5, SECTION 501, 501.1, SECTION 507, 507.1, 507.2, [BS] 507.3, [BS] 507.4, CHAPTER 6, SECTION 601, 601.1, SECTION 607, 607.1, 607.2, CHAPTER 7, SECTION 701, 701.1, CHAPTER 8, SECTION 801, 801.1, CHAPTER 9, SECTION 901, 901.1, CHAPTER 13, SECTION 1301, 1301.1, 1301.1.1, CHAPTER 12, SECTION 1201, 1201.1, SECTION 1202, SECTION 1203, SECTION 1304 (New), 1304.1 (New), 306.7.18, 306.7.18.1, 306.7.18.2, 306.7.18.3, 306.7.18.4, 306.7.18.5, 306.7.18.6, 306.7.18.7 , SECTION 1205, SECTION 1204, SECTION 1206

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

CHAPTER 3
PROVISIONS FOR ALL COMPLIANCE METHODS

SECTION 301
ADMINISTRATION

Revise as follows:

301.1 Applicability. The *repair*, *alteration*, *change of occupancy*, *addition* or relocation of all *existing buildings* shall comply with Section 301.2, 301.3, ~~or~~ 301.4 or 301.5. The provisions of Sections 302 through 309 shall apply to all *alterations*, *repairs*, *additions*, relocation of structures and *changes of occupancy* regardless of compliance method.

301.1.1 Bleachers, folding and telescopic seating and grandstands. Existing bleachers, folding and telescopic seating and grandstands shall comply with ICC 300.

301.2 Repairs. *Repairs* shall comply with the requirements of Chapter 4.

Add new text as follows:

301.3 Historic buildings. *Alterations*, *additions* or *changes of occupancy* of *historic buildings* shall comply with one of the methods described in Section 301.5 except as modified by Chapter 13.

301.4 Relocated buildings. Relocated buildings shall comply with the requirements of Chapter 14.

Revise as follows:

~~**301.3**~~ **301.5 Alteration, addition or change of occupancy.** The *alteration*, *addition* or *change of occupancy* of all *existing buildings* shall comply with one of the methods listed in Section ~~301.3.1~~ 301.5.1, ~~301.3.2~~ 301.5.2 or ~~301.3.3~~ 301.5.3 as selected by the applicant. Sections ~~301.3.1~~ 301.5.1 through ~~301.3.3~~ 301.5.3 shall not be applied in combination with each other.

Exception: Subject to the approval of the *code official*, *alterations* complying with the laws in existence at the time the building or the affected portion of the building was built shall be considered in compliance with the provisions of this code. New structural members added as part of the *alteration* shall comply with the *International Building Code*. This exception shall not apply to the following:

1. *Alterations* for accessibility required by Section 306.
2. *Alterations* that constitute *substantial improvement* in *flood hazard areas*, which shall comply with Sections 503.2, 701.3 or 1303.1.3.
3. Structural provisions of Section 304, Chapter 5 or to the structural provisions of Sections 706, 805 and 906.

~~301.3.1~~ **301.5.1 Prescriptive compliance method.** *Alterations*, *additions* and *changes of occupancy* complying with Chapter 5 of this code in buildings complying with the *International Fire Code* shall be considered in compliance with the provisions of this code.

~~301.3.2~~ **301.5.2 Work area compliance method.** *Alterations*, *additions* and *changes of occupancy* complying with the applicable requirements of Chapters 6 through ~~12~~ 11 of this code shall be considered in compliance with the provisions of this code.

~~301.3.3~~ **301.5.3 Performance compliance method.** *Alterations*, *additions* and *changes of occupancy* complying with Chapter 12 ~~13~~ of this code shall be considered in compliance with the provisions of this code.

SECTION 306
ACCESSIBILITY FOR EXISTING BUILDINGS

306.1 Scope. The provisions of Sections 306.1 through ~~306.7.18~~ 306.7.17 apply to maintenance and *repair*, *change of occupancy*, *additions* and *alterations* to *existing buildings*~~, including those identified as *historic buildings*~~.

CHAPTER 5
PRESCRIPTIVE COMPLIANCE METHOD

SECTION 501
GENERAL

501.1 Scope. The provisions of this chapter shall control the *alteration, addition* and *change of occupancy* of *existing buildings* and structures~~, including *historic buildings* and structures~~ as referenced in Section ~~301.3~~ 301.5.1.

Exception: Historic buildings shall comply with this chapter except as modifed in Chapter 13.

Delete without substitution:

~~SECTION 507~~
~~HISTORIC BUILDINGS~~

~~**507.1 Historic buildings.** The provisions of this code that require improvements relative to a building's existing condition or, in the case of *repairs*, that require improvements relative to a building's predamage condition, shall not be mandatory for *historic buildings* unless specifically required by this section.~~

~~**507.2 Life safety hazards.** The provisions of this code shall apply to *historic buildings* judged by the *code official* to constitute a distinct life safety hazard.~~

~~**[BS] 507.3 Flood hazard areas.** Within *flood hazard areas* established in accordance with Section 1612.3 of the *International Building Code*, or Section R306 of the *International Residential Code*, as applicable, where the work proposed constitutes *substantial improvement,* the building shall be brought into compliance with Section 1612 of the *International Building Code*, or Section R306 of the *International Residential Code*, as applicable.~~

~~**Exception:** *Historic buildings* meeting any of the following criteria need not be brought into compliance:~~

1. ~~Listed or preliminarily determined to be eligible for listing in the National Register of Historic Places.~~
2. ~~Determined by the Secretary of the US Department of Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined to qualify as an historic district.~~
3. ~~Designated as historic under a state or local historic preservation program that is approved by the Department of Interior.~~

[BS] 507.4 Structural. *Historic buildings* shall comply with the applicable structural provisions in this chapter.

Exceptions:

1. The *code official* shall be authorized to accept existing floors and existing live loads and to approve operational controls that limit the live load on any floor.
2. *Repair* of *substantial structural damage* is not required to comply with Sections 405.2.3 and 405.2.4. *Substantial structural damage* shall be repaired in accordance with Section 405.2.1.

CHAPTER 6
CLASSIFICATION OF WORK

SECTION 601
GENERAL

Revise as follows:

601.1 Scope. The provisions of this chapter shall be used in conjunction with Chapters 7 through ~~12~~ 11 and shall apply to the *alteration*, *addition* and *change of occupancy* of *existing structures*, ~~including historic structures,~~ as referenced in Section ~~301.3.2~~ 301.5.2. The work performed on an *existing building* shall be classified in accordance with this chapter.

Exception: Historic buildings shall comply with this chapter except as modifed in Chapter 13.

Delete without substitution:

~~SECTION 607~~
~~HISTORIC BUILDINGS~~

~~**607.1 Scope.** *Historic building* provisions shall apply to buildings classified as historic as defined in Chapter 2.~~

~~**607.2 Application.** Except as specifically provided for in Chapter 12, *historic buildings* shall comply with applicable provisions of this code for the type of work being performed.~~

CHAPTER 7
ALTERATIONS—LEVEL 1

SECTION 701
GENERAL

Revise as follows:

701.1 Scope. Level 1 *alterations* as described in Section 602 shall comply with the requirements of this chapter. ~~Level 1 *alterations* to *historic buildings* shall comply with this chapter, except as modified in Chapter 12.~~

CHAPTER 8

ALTERATIONS—LEVEL 2

SECTION 801
GENERAL

801.1 Scope. Level 2 *alterations* as described in Section 603 shall comply with the requirements of this chapter.

Exception: Buildings in which the reconfiguration is exclusively the result of compliance with the accessibility requirements of Section 306.7.1 shall be permitted to comply with Chapter 7.

CHAPTER 9
ALTERATIONS—LEVEL 3

SECTION 901
GENERAL

901.1 Scope. Level 3 *alterations* as described in Section 604 shall comply with the requirements of this chapter.

CHAPTER ~~13~~12
PERFORMANCE COMPLIANCE METHODS

SECTION ~~1301~~ 1201
GENERAL

~~1301.1~~ **1201.1 Scope.** The provisions of this chapter shall apply to the *alteration*, *addition* and *change of occupancy* of *existing structures* ~~, including historic structures,~~ as referenced in Section ~~301.3.3~~ 301.5.3. The provisions of this chapter are intended to maintain or increase the current degree of public safety, health and general welfare in *existing buildings* while permitting, *alteration*, *addition* and *change of occupancy* without requiring full compliance with Chapters 6 through 12, except where compliance with the prescriptive method of Chapter 5 or the work area method of other provisions of this code is specifically required in this chapter.

Exception: Historic buildings shall comply with this chapter except as modified in Chapter 13.

~~1301.1.1~~ **1201.1.1 Compliance with other methods.** *Alterations*, *additions* and *changes of occupancy* to *existing structures* shall comply with the provisions of this chapter or with one of the methods provided in Section ~~301.3~~ 301.5.

CHAPTER ~~12~~ 13
HISTORIC BUILDINGS

SECTION ~~1201~~ 1301
GENERAL

1301.1 ~~**1201.1**~~ **Scope.** This chapter is intended to provide means for the preservation of *historic buildings. Historic buildings* shall comply with the provisions of this chapter relating to their *repair*, *alteration*, relocation and *change of occupancy*.

SECTION ~~1202~~ 1302
REPAIRS

SECTION ~~1203~~ 1303
FIRE SAFETY

Add new text as follows:

SECTION 1304
ACCESSIBILITY

1304.1 General. The provisions of Sections 306.1 through 306.7.17 apply to maintenance and *repair*, change of occupancy, additions and alterations for accessibility to existing buildings identified as historic buildings.

~~306.7.18~~ 1304.2 ~~Historic structures~~ Application. Where compliance with the requirements for accessible routes, entrances or toilet rooms would threaten or destroy the historic significance of the historic structure, as determined by the authority having jurisdiction, the alternative requirements of Sections 1304.2.1 ~~306.7.18.1~~ through 1304.2.7 ~~306.7.18.7~~ for that element shall be permitted.

Exceptions:

1. Accessible means of egress required by Chapter 10 of the *International Building Code* are not required to be provided in historic structures.
2. The altered element or space is not required to be on an accessible route, unless required by Section ~~306.7.18.1~~ 1304.2.1 or ~~306.7.18.2~~ 1304.2.2.

Revise as follows:

~~306.7.18.1~~ 1304.2.1 Site arrival points. Not fewer than one exterior accessible route, including curb ramps from a site arrival point to an accessible entrance, shall be provided and shall not be less than 36 inches (914 mm) minimum in width.

~~306.7.18.2~~ 1304.2.2 Multiple-level buildings and facilities. An accessible route from an accessible entrance to public spaces on the level of the accessible entrance shall be provided.

~~306.7.18.3~~ 1304.2.3 Entrances. Where an entrance cannot be made accessible in accordance with Section 306.7.5, an accessible entrance that is unlocked while the building is occupied shall be provided; or, a locked accessible entrance with a notification system or remote monitoring shall be provided.

Signs complying with Section 1112 of the *International Building Code* shall be provided at the public entrances and the accessible entrance.

~~306.7.18.4~~ 1304.2.4 Toilet facilities. Where toilet rooms are provided, not fewer than one accessible single-user toilet room or one accessible family or assisted-use toilet room complying with Section 1110.2.1 of the *International Building Code* shall be provided.

~~306.7.18.5~~ 1304.2.5 Bathing facilities. Where bathing rooms are provided, not fewer than one accessible single-user bathing room or one accessible family or assisted-use bathing rooms complying with Section 1110.2.1 of the *International Building Code* shall be provided.

~~306.7.18.6~~ 1304.2.6 Type A units. The *alteration* to Type A individually owned dwelling units within a Group R-2 occupancy shall be permitted to meet the provision for a Type B dwelling unit.

~~306.7.18.7~~ 1304.2.7 Type B units. Type B dwelling or sleeping units required by Section 1108 of the *International Building Code* are not required to be provided in *historic buildings*.

SECTION ~~1205~~ 1305

STRUCTURAL

SECTION ~~1204~~ 1306
CHANGE OF OCCUPANCY

SECTION ~~1206~~ 1307
RELOCATED BUILDINGS

Reason: The purpose of this proposal is to move the requirements for historic buildings into one location so it can be generally referenced the same as Repairs and Relocated buildings. This will improve consistency across the three methods for the reuse of historic buildings. Some sections without changes are included to better show consistency across methods and chapters.

This is one of a group of changes from BCAC regarding the reuse of historic buildings. See the proposal to reorganize the chapter for a clean copy of the chapter for Historic Buildings if all the proposals are approved, however, they are all stand alone proposals.301.1 and 301.3 - allows for the requirements for historic buildings to be in one chapter, regardless of method.
306 - accessibility in historic building has been relocated to the historic building chapter.
501.1, 601.1, 1301.1 - allows for historic buildings to use the same exceptions for existing building offered for all existing buildings. The exception allows for historic buildings to have additional allowances currently permitted.
507 - deleted
507.1 similar to 1201.1
507.2 similar to 1201.5 and 1205.2
507.3 - same as 1201.4
507.4 - same as 1205.1
607, 701.1 - Deleted reference to Chapter 12 in work area method as redundant. This is addressed in 301.3 and 601.1.
Move chapter for Performance compliance methods to Chapter 12
Move chapter for Historic Buildings to Chapter 13 - this moves historic buildings out of the work area method.
1304(new) - relocate the historic building provisions for accessibility from Chapter 3.
1305 & 1306 - Switch structural and change of occupancy sections so that the order of the sections are related to IBC chapter orders and consistent with BCAC proposals for Chapter 3 and 10.
This is one of a group of code change proposals related to IEBC Chapter 12 Historic buildings. While they work together, each proposal can stand on it's own merit. Please see the proposal for the reorganization of this chapter for a clean copy of what this chapter would look like if all the proposals pass.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is a movement of existing sections with no change in construction requirements.

EB8-25

EB9-25

IEBC: CHAPTER 3, SECTION 301, 301.1, 301.1.1, 301.2, 301.4, 301.3, 301.3.1, 301.3.2, 301.3.3, SECTION 310 (New), 310.1 (New)

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

CHAPTER 3
PROVISIONS FOR ALL COMPLIANCE METHODS

SECTION 301
ADMINISTRATION

301.1 Applicability. The *repair*, *alteration*, *change of occupancy*, *addition* or relocation of all *existing buildings* shall comply with Section 301.2, 301.3 or 301.4. The provisions of Sections 302 through ~~309~~ 310 shall apply to all *alterations*, *repairs*, *additions*, relocation of structures and *changes of occupancy* regardless of compliance method.

Delete without substitution:

~~**301.1.1 Bleachers, folding and telescopic seating and grandstands.** Existing bleachers, folding and telescopic seating and grandstands shall comply with ICC 300.~~

301.2 Repairs. *Repairs* shall comply with the requirements of Chapter 4.

Revise as follows:

301.3 ~~**301.4**~~ **Relocated buildings.** Relocated buildings shall comply with the requirements of Chapter 14.

~~**301.3**~~ **301.4 Alteration, addition or change of occupancy.** The *alteration*, *addition* or *change of occupancy* of all *existing buildings* shall comply with one of the methods listed in Section ~~301.3.1~~301.4.1, ~~301.3.2~~301.4.2 or ~~301.3.3~~301.4.3 as selected by the applicant. Sections ~~301.3.1~~301.4.1 through ~~301.3.3~~301.4.3 shall not be applied in combination with each other.

Exception: Subject to the approval of the *code official*, *alterations* complying with the laws in existence at the time the building or the affected portion of the building was built shall be considered in compliance with the provisions of this code. New structural members added as part of the *alteration* shall comply with the *International Building Code*. This exception shall not apply to the following:

1. *Alterations* for accessibility required by Section 306.
2. *Alterations* that constitute *substantial improvement* in *flood hazard areas*, which shall comply with Sections 503.2, 701.3 or 1303.1.3.
3. Structural provisions of Section 304, Chapter 5 or to the structural provisions of Sections 706, 805 and 906.

~~**301.3.1**~~**301.4.1 Prescriptive compliance method.** *Alterations*, *additions* and *changes of occupancy* complying with Chapter 5 of this code in buildings complying with the *International Fire Code* shall be considered in compliance with the provisions of this code.

~~**301.3.2**~~**301.4.2 Work area compliance method.** *Alterations*, *additions* and *changes of occupancy* complying with the applicable requirements of Chapters 6 through 12 of this code shall be considered in compliance with the provisions of this code.

~~**301.3.3**~~**301.4.3 Performance compliance method.** *Alterations*, *additions* and *changes of occupancy* complying with Chapter 13 of this code shall be considered in compliance with the provisions of this code.

Add new text as follows:

SECTION 310
BLEACHERS, FOLDING AND TELESCOPIC SEATING AND GRANDSTANDS

310.1 Bleachers, folding and telescopic seating and grandstands. Existing bleachers, folding and telescopic seating and grandstands shall comply with ICC 300.

Reason: This proposal moves requirements specific to bleachers out of Administration. ICC 300 does include provisions for repairs, alterations and relocated bleachers. This should be applied the same as other special items, such as storm shelters.

This proposal is part of a package of code changes to expand and reorganize Chapter 3 to increase understanding of the options available in the IEBC. Please see the proposal for reorganization for a clean version of what Chapter 3 will look like if all the proposals are successful.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).
BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is a relocation of requirements. It is not intended to have any change to construction requirements.

EB9-25

EB10-25 Part I

IEBC: 301.1, SECTION 310 (New), 310.1 (New), 310.1.1 (New), 310.1.2 (New), 310.1.3 (New), UL Chapter 16 (New)

Proponents: Joseph H. Cain, P.E., representing Solar Energy Industries Association (SEIA); John Taecker, representing Taecker Codes & Technical Services (john@taeckercodes.com)

THIS IS A 2 PART CODE CHANGE. PART I WILL BE HEARD BY THE EXITING BUILDING CODE COMMITTEE. PART II WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THESE COMMITTEES.

2024 International Existing Building Code

Revise as follows:

301.1 Applicability. The *repair*, *alteration*, *change of occupancy*, *addition* or relocation of all *existing buildings* shall comply with Section 301.2, 301.3 or 301.4. The provisions of Sections 302 through ~~309~~310 shall apply to all *alterations*, *repairs*, *additions*, installation of rooftop-mounted *photovoltaic (PV) panel systems*, relocation of structures and *changes of occupancy* regardless of compliance method.

Add new text as follows:

SECTION 310
INSTALLATION OF ROOFTOP-MOUNTED PHOTOVOLTAIC (PV) PANEL SYSTEMS

310.1 General. Rooftop-mounted *photovoltaic (PV) panel systems* installed on existing buildings shall be designed and installed in accordance with this section, the *International Fire Code*, NFPA 70 and the manufacturer's installation instructions. Roof structures that provide support for PV panel systems shall be evaluated in accordance with this section.

310.1.1 Equipment. *Photovoltaic panels* and modules shall be *listed* and *labeled* in accordance with both UL 61730-1 and UL 61730-2. Inverters shall be *listed* and *labeled* in accordance with UL 1741. Systems connected to the utility grid shall use inverters listed for utility interaction.

310.1.2 Fire classification. Rooftop-mounted *PV panel systems* shall have a fire classification in accordance with Section 1505.9 of the *International Building Code* or Section R329 of the *International Residential Code*.

310.1.3 Access and pathways. Roof access, pathways and spacing requirements shall be provided in accordance with Section 1205 of the *International Fire Code* or Section R329 of the *International Residential Code*.

Add new standard(s) as follows:

UL

UL LLC
333 Pfingsten Road
Northbrook, IL 60062

61730-2—2017	Photovoltaic (PV) Module Safety Qualification — Part 2: Requirements for Testing—with Revisions through April 2020
61730-1—2017	Photovoltaic (PV) Module Safety Qualification — Part 1: Requirements for Construction—with Revisions through April 2020
1741—2010	Inverters, Converters, Controllers and Interconnection System Equipment for Use with Distributed Energy Resources—with Revisions through June 2021

Staff Analysis: A review of the standard proposed for inclusion in the code, UL 2703A--2002 Outline of Investigation for Flashing Devices and Systems for Rooftop-Mounted Photovoltaics, with regard to some of the key ICC criteria for referenced standards (Section

4.6 of CP#28) will be posted on the ICC website on or before April 1, 2025.

The proposed referenced standards, listed below, are currently referenced in the IBC:

- UL 61730-1--2017 Photovoltaic (PV) Module Safety Qualification -- Part 1: Requirements for Construction--with Revisions through April 2020
- UL 61730-2--2017 Photovoltaic (PV) Module Safety Qualifcation -- Part 2: Requirements for Testing--with Revisions through April 2020

The proposed referenced standard, UL 1741--2010 Inverters, Converters, Controllers and Interconnectioni System Equipment for Use with Distribued Energey Resoruces--with Revisions through June 2021, is currently referenced in the IMC.

EB10-25 Part I

EB10-25 Part II

IEBC: [BS] 304.1, 310.1.4 (New), 310.2 (New), 310.2.1 (New), 310.2.1.1 (New), 310.2.1.2 (New), 310.2.1.3 (New), 310.2.1.4 (New), 310.2.2 (New), 310.2.2.1 (New), 310.2.2.2 (New), 310.2.3 (New), 310.2.3.1 (New), 310.3 (New), UL Chapter 16 (New)

Proponents: Joseph H. Cain, P.E., representing Solar Energy Industries Association (SEIA)

2024 International Existing Building Code

Revise as follows:

[BS] 304.1 Live loads. Where an *addition* or *alteration* does not result in increased design live load, existing gravity load-carrying structural elements shall be permitted to be evaluated and designed for live loads *approved* prior to the *addition* or *alteration*. If the *approved* live load is less than that required by Section 1607 of the *International Building Code*, the area designated for the nonconforming live load shall be posted with placards of *approved* design indicating the *approved* live load. Where the *addition* or *alteration* results in increased design live load, the live load required by Section 1607 of the *International Building Code* shall be used. *Roof live load* used for evaluation of installation of rooftop-mounted *PV panel systems* shall be in accordance with this section and Section 310.

Add new text as follows:

310.1.4 Flashing of PV panel system attachments. Flashing shall be installed in a manner that prevents water from entering the roof at attachment points for rooftop-mounted *PV panel systems* in accordance with one of the following:

1. The *roof covering* manufacturer's installation instructions, or
2. A metallic or nonmetallic flashing material or system that is *listed* and *labeled* in accordance with UL 2703A and installed in accordance with the flashing manufacturer's installation instructions.

310.2 Structural loads and resistance. Structural loads for rooftop-mounted *PV panel systems* shall be determined in accordance with Chapter 16 of the *International Building Code* and ASCE 7. Roof structures providing support for *PV panel systems* shall be evaluated or designed in accordance with this section.

310.2.1 Gravity loads and resistance. Gravity loads for installation of rooftop-mounted *PV panel systems* shall be determined in accordance with this section.

310.2.1.1 Dead load. The weight of *PV panel systems* including their mounting system and ballast shall be considered as dead load.

310.2.1.2 Roof live load. *Roof live load* shall be determined in accordance with Section 304.1 and either Section 1607.14.3 of the *International Building Code* or Section R329 of the *International Residential Code*, as applicable for the type of building.

Exception: *Roof live load* need not be applied to the area of the roof covered by *PV panel systems* where the clear height between the *PV panels* and the roof surface is 24 inches (610 MM) or less.

310.2.1.3 Snow load. Design snow load shall be determined in accordance with Chapter 7 of ASCE 7, but the design roof load shall be not less than that determined by Section 304.1 and Section 1607.14.3 of the *International Building Code*.

310.2.1.4 Existing structural elements carrying gravity load. Any existing gravity load-carrying structural element for which installation of a rooftop-mounted *PV panel system* causes an increase in design dead, live or snow load, including snow drift effects, of more than 5 percent shall be evaluated, replaced or altered as needed to carry the gravity loads required by the *International Building Code* for new structures.

Exceptions:

1. Buildings of Group R occupancy with not more than five dwelling or sleeping units used solely for residential purposes where the altered building supporting the *PV panel system* complies with the conventional light-frame construction methods of the *International Building Code* or the provisions of the *International Residential Code*.
2. For Group R3 and R4 occupancies, installation of rooftop-mounted *PV panel systems* weighing 4 psf (0.1915 kN/m^2) or less over an existing single layer of *roof covering*.

310.2.2 Lateral loads and resistance. Lateral loads for installation of rooftop-mounted *PV panel systems* shall be determined in accordance with this section.

310.2.2.1 Wind loads. Rooftop-mounted *PV panel systems* shall be designed in accordance with Section 1609 of the *International Building Code* and ASCE 7.

310.2.2.2 Existing structural elements carrying lateral load. Where the installation of a rooftop-mounted *PV panel system* increases design lateral loads, the lateral force-resisting system of the building shall meet the requirements of Section 1609 of the *International Building Code* and Section 304.3.2 of this code.

Exceptions:

1. Any existing lateral load-carrying structural element whose demand-capacity ratio with installation of a rooftop-mounted *PV panel system* considered is not more than 10 percent greater than its demand-capacity ratio without the *PV panel system* shall be permitted to remain unaltered.
2. Increases in the demand-capacity ratio due to lateral loads from seismic forces need not be evaluated for the installation of rooftop-mounted *PV panel systems* where the additional roof dead load due to the system, including ballast where applicable, does not exceed 10 percent of the dead load of the existing roof.

310.2.3 Ballasted photovoltaic (PV) panel systems. Ballasted, roof-mounted *PV panel systems* need not be rigidly attached to the roof or supporting structure. Ballasted, unattached *PV panel systems* shall be designed and installed only on roofs with slopes not more than 1 unit vertical in 12 units horizontal. Ballasted, unattached PV panel systems shall be designed to accommodate sliding in accordance with ASCE 7 Chapter 13.

310.2.3.1 Roof structures supporting ballasted PV panel systems. Roof structures that provide support for ballasted PV panel system shall be checked for deflections, including ponding, in accordance with the *International Building Code*.

310.3 Reinstallation of PV panel systems. Existing installations of rooftop-mounted *PV panel systems approved* under previous code requirements shall be permitted to be reinstalled after *roof repair* or *roof replacement*, provided all of the following conditions are met:

1. Existing rooftop-mounted *PV panel systems* shall be reinstalled in accordance with the manufacturer's installation instructions and the minimum requirements of the edition of the codes to which it was originally installed.
2. The system shall be reinstalled in the previous location or in an *approved* location.
3. Components of the rooftop-mounted *PV panel system* shall not be reused unless such components are in good working condition and *approved*.
4. All single-use components of the PV mounting system shall be replaced in accordance with the manufacturer's installation instructions.

Add new standard(s) as follows:

UL

UL LLC
333 Pfingsten Road
Northbrook, IL 60062

2703A-2022 Outline of Investigation for Flashing Devices and Systems for Rooftop-Mounted Photovoltaics

Reason: Through several cycles of I-code development, the solar industry and other stakeholders have created code provisions that occur in many locations throughout the I-codes, including the IBC, IFC, and IRC. In previous development cycles, we have created a "solar road map" in IBC Section 3111, and another "solar roadmap" in IRC R329.

This proposal is intended to create a new solar roadmap in the IEBC, by creating new Section 310. This technical requirements in proposed Section 310 are modeled after the other existing solar roadmaps, and are drawn from many different code provisions throughout the I-codes.

The following list identifies sections of other I-codes that were used as sources of language for this IEBC proposal. In some cases the language is the same as other I-codes. In some cases the language is modified to be appropriate to PV-specific requirements in the IEBC.

Section 310.1 General is based on IBC 3111.3 and IBC 1607.14.3.5.

Section 310.1.1 Equipment is based on IBC 3111.3.1.

Section 310.1.2 Fire classification is based on IBC Sections 3111.3.2 and 1505.9, and IRC Section R329.4.2.

Section 310.1.3 Access and pathways is based on IBC Section 3111.3.4 and IRC Section R329.6.

Section 310.1.4 Flashing of PV panel system attachments is a new PV-specific section based on IBC 1503.2 and IRC R903.2. The proposed language is the same as language proposed for the IBC, IRC and IEBC in other proposals submitted for Group B.
Section 310.2 Structural loads and resistance is based on IBC 1607.14.3.

Section 310.2.1.1 Dead load is based on IBC 1606.4.

Section 310.1.2 Roof live load is based on IBC Section 1607.14.3.1 and IRC Section R329.4.1.1.

Section 310.2.1.3 Snow load is based on IBC Section 1608.1.

Section 310.2.1.4 Existing structural elements carrying gravity load is based on IEBC Sections 503.3 & 805.2 and IRC Appendix BO, Section BO105.4.2.1.

Section 310.2.2.1 Wind loads is based on IBC Section 3111.1.1.

Section 310.2.2.2 Existing structural elements carrying lateral load is based on IEBC Sections 503.4 and 805.3.

Section 310.2.3 Ballasted PV panel systems is based on IBC 1613.4.

Section 310.2.3.1 Roof structures supporting ballasted PV panel systems is based on IBC 1607.14.3.5.

Section 310.3 Reinstallation of PV panel systems is newly proposed language that is the same as other proposals for the IBC, IRC, and IEBC.

UL Standards 61730-1, 61730-2, and 1741 are already referenced standards in the IBC and IRC. This proposal seeks to add them to the IEBC, along with any updates submitted in Group B ADMIN proposals.

UL 2703A Outline of investigation for flashing devices and systems for rooftop-mounted photovoltaics is a new standard that is also proposed to become a referenced standard in the IBC and IRC in other Group B proposals.

If both parts of this proposal are approved the language will appear as follows:

SECTION 310

INSTALLATION OF ROOFTOP-MOUNTED PHOTOVOLTAIC (PV) PANEL SYSTEMS

310.1 General . Rooftop-mounted *photovoltaic (PV) panel systems* installed on existing buildings shall be designed and installed in accordance with this section, the *International Fire Code,* NFPA 70 and the manufacturer's installation instructions. Roof structures that provide support for PV panel systems shall be evaluated in accordance with this section.

310.1.1 Equipment . *Photovoltaic panels* and modules shall be *listed* and *labeled* in accordance with both UL 61730-1 and UL 61730-2. Inverters shall be *listed* and *labeled* in accordance with UL 1741. Systems connected to the utility grid shall use inverters listed for utility

interaction.

310.1.2 Fire classification . Rooftop-mounted *PV panel systems* shall have a fire classification in accordance with Section 1505.9 of the *International Building Code* or Section R329 of the *International Residential Code.*

310.1.3 Access and pathways . Roof access, pathways and spacing requirements shall be provided in accordance with Section 1205 of the *International Fire Code* or Section R329 of the *International Residential Code.*

310.1.4 Flashing of PV panel system attachments. Flashing shall be installed in a manner that prevents water from entering the roof at attachment points for rooftop-mounted *PV panel systems* in accordance with one of the following:

1. The *roof covering* manufacturer's installation instructions, or

2. A metallic or nonmetallic flashing material or system that is *listed* and *labeled* in accordance with UL 2703A and installed in accordance with the flashing manufacturer's installation instructions.

310.2 Structural loads and resistance. Structural loads for rooftop-mounted *PV panel systems* shall be determined in accordance with Chapter 16 of the *International Building Code* and ASCE 7. Roof structures providing support for *PV panel systems* shall be evaluated or designed in accordance with this section.

310.2.1 Gravity loads and resistance . Gravity loads for installation of rooftop-mounted *PV panel systems* shall be determined in accordance with this section.

310.2.1.1 Dead load . The weight of *PV panel systems* including their mounting system and ballast shall be considered as dead load.

310.2.1.2 Roof live load.*Roof live load* shall be determined in accordance with Section 304.1 and either Section 1607.14.3 of the *International Building Code* or Section R329 of the *International Residential Code,* as applicable for the type of building.

Exception: *Roof live load* need not be applied to the area of the roof covered by *PV panel systems* where the clear height between the *PV panels* and the roof surface is 24 inches (610 MM) or less.

310.2.1.3 Snow load . Design snow load shall be determined in accordance with Chapter 7 of ASCE 7, but the design roof load shall be not less than that determined by Section 304.1 and Section 1607.14.3 of the *International Building Code*.

310.2.1.4 Existing structural elements carrying gravity load. Any existing gravity load-carrying structural element for which installation of a rooftop-mounted *PV panel system* causes an increase in design dead, live or snow load, including snow drift effects, of more than 5 percent shall be evaluated, replaced or altered as needed to carry the gravity loads required by the *International Building Code* for new structures.

Exceptions:

1.Buildings of Group R occupancy with not more than five dwelling or sleeping units used solely for residential purposes where the altered building supporting the *PV panel system* complies with the conventional light-frame construction methods of the *International Building Code* or the provisions of the *International Residential Code.*

2.For Group R3 and R4 occupancies, installation of rooftop-mounted *PV panel systems* weighing 4 psf (0.1915 kN/m^2) or less over an existing single layer of *roof covering.*

310.2.2 Lateral loads and resistance. Lateral loads for installation of rooftop-mounted *PV panel systems* shall be determined in accordance with this section.

310.2.2.1 Wind loads. Rooftop-mounted *PV panel systems* shall be designed in accordance with Section 1609 of the *International Building Code* and ASCE 7.

310.2.2.2Existing structural elements carrying lateral load. Where the installation of a rooftop-mounted *PV panel system* increases design lateral loads, the lateral force-resisting system of the building shall meet the requirements of Section 1609 of the *International Building Code* and Section 304.3.2 of this code.

Exceptions:

1.Any existing lateral load-carrying structural element whose demand-capacity ratio with installation of a rooftop-mounted *PV panel system* considered is not more than 10 percent greater than its demand-capacity ratio without the *PV panel system* shall be permitted to remain unaltered.

2.Increases in the demand-capacity ratio due to lateral loads from seismic forces need not be evaluated for the installation of rooftop-mounted *PV panel systems* where the additional roof dead load due to the system, including ballast where applicable,

does not exceed 10 percent of the dead load of the existing roof.

310.2.3 Ballasted photovoltaic (PV) panel systems. Ballasted, roof-mounted *PV panel systems* need not be rigidly attached to the roof or supporting structure. Ballasted, unattached *PV panel systems* shall be designed and installed only on roofs with slopes not more than 1 unit vertical in 12 units horizontal. Ballasted, unattached PV panel systems shall be designed to accommodate sliding in accordance with ASCE 7 Chapter 13.

310.2.3.1 Roof structures supporting ballasted PV panel systems . Roof structures that provide support for ballasted PV panel system shall be checked for deflections, including ponding, in accordance with the *International Building Code*.

310.3 Reinstallation of PV panel systems. Existing installations of rooftop-mounted *PV panel systems approved* under previous code requirements shall be permitted to be reinstalled after *roof repair* or *roof replacement,* provided all of the following conditions are met:

1.Existing rooftop-mounted *PV panel systems* shall be reinstalled in accordance with the manufacturer's installation instructions and the minimum requirements of the edition of the codes to which it was originally installed.

2.The system shall be reinstalled in the previous location or in an *approved* location.

3.Components of the rooftop-mounted *PV panel system* shall not be reused unless such components are in good working condition and *approved.*

4.All single-use components of the PV mounting system shall be replaced in accordance with the manufacturer's installation instructions.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal creates a new "solar road map" in the IEBC, drawn mostly from existing language already found in the IBC, IRC, IFC, and IEBC. It provides options for compliance under the IEBC.

Staff Analysis: A review of the standard proposed for inclusion in the code, UL 2703A--2002 Outline of Investigation for Flashing Devices and Systems for Rooftop-Mounted Photovoltaics, with regard to some of the key ICC criteria for referenced standards (Section 4.6 of CP#28) will be posted on the ICC website on or before April 1, 2025.

The proposed referenced standards, listed below, are currently referenced in the IBC:

- UL 61730-1--2017 Photovoltaic (PV) Module Safety Qualification -- Part 1: Requirements for Construction--with Revisions through April 2020
- UL 61730-2--2017 Photovoltaic (PV) Module Safety Qualifcation -- Part 2: Requirements for Testing--with Revisions through April 2020

The proposed referenced standard, UL 1741--2010 Inverters, Converters, Controllers and Interconnectioni System Equipment for Use with Distribued Energey Resoruces--with Revisions through June 2021, is currently referenced in the IMC.

EB10-25 Part II

EB11-25

IEBC: 301.1, SECTION 310 (New), 310.1 (New)

Proponents: Jeffrey Shapiro, LTFR, representing Lake Travis Fire Rescue

2024 International Existing Building Code

Revise as follows:

301.1 Applicability. The *repair*, *alteration*, *change of occupancy*, *addition* or relocation of all *existing buildings* shall comply with Section 301.2, 301.3 or 301.4. The provisions of Sections 302 through 310~~309~~ shall apply to all *alterations*, *repairs*, *additions*, relocation of structures and *changes of occupancy* regardless of compliance method.

Add new text as follows:

SECTION 310
FIRE PROTECTION FOR POST-FIRE REPAIR OR RECONSTRUCTION

310.1 Institutional and residential occupancies. Where an unsprinklered Group I, Group R-1, Group R-2 or Group R-4 Occupancy is repaired or reconstructed following a fire incident that caused more than 25-percent of a fire area to remain unoccupiable for a period of 60 or more days, an automatic sprinkler system complying with Section 903.3 shall be installed throughout such fire area or fire areas as part of the repair or reconstruction.

Reason: This proposal is being added to correlate with a new Section 1108 in the IFC, being added by Proposal F162-24, which has been recommended for Approval as Submitted. There was a single comment considered at CAH#2, but the IFC Technical Committee sustained their initial action after hearing discussion. Because many fire-damaged buildings will be rebuilt under the IEBC, it is important for the IEBC to include these provisions in addition to Chapter 11 of the IFC, which deals with construction requirements for existing buildings. The following is the reason statement that was provided with F162-24.

This proposal reflects the progress of a FCAC task group on the topic of retrofitting certain occupancies that have suffered a catastrophic fire. There was insufficient time for further discussion and consideration that might have yielded a consensus proposal, so I am submitting this as a basis for continued discussion. Although I serve as a consultant to the National Fire Sprinkler Association, this proposal has not been reviewed or endorsed by NFSA, and I am not representing NFSA on this issue. My motivation comes from many years in the fire service observing reconstruction of unsprinklered buildings without sprinklers following a catastrophic fire, which has always struck me as illogical. If a newly built occupancy requires sprinklers, repair or reconstruction of a previously existing occupancy that suffered a catastrophic fire, particularly residential and institutional uses where occupants will be sleeping, should not be permitted by code.

During task group discussions, there was broad agreement that something could be done to address this concern in the code, but reaching agreement on code text was challenging. Essentially, the questions are, 1) what should be the trigger, or level of loss, warranting the addition of fire sprinklers in repair or reconstruction, and 2) what portion of a building should be required to be sprinklered?

Discussion explored the possibility of using fire fatalities as a Step 1 trigger, but consensus on a number of fatalities could not be reached. Some believed that a single fire fatality should be enough, while others looked at two or more or didn't support the concept. Also, defining a "fire fatality" in the code is challenging as an enforcement tool because the term might refer to individuals who were deceased at the scene, or it might also include individuals who are injured and later died as a result of such injuries. And, severe injuries might be regarded by those who deal with burn injuries as an equally sufficient justification vs. a fatality. For these reasons, the life-loss and injury triggers were abandoned in this proposal, in favor of trying to define a level of property damage that could be reasonably associated with a catastrophic fire.

Another Step 1 trigger that was considered was "multiple offender" buildings, or buildings that experience repeated fire incidents. This approach was also abandoned because consensus could not be reached on the number of fires over a time period, the damage level that should be considered as a contributing fire, or how a jurisdiction would keep track of a repeating fire incident history over time.

The approach that did gain sufficient traction was looking at a "fire area" as defined in the code to require a minimum 2-hour separation from other portions of a building, and a level of damage to a fire area that should be considered as sufficient to warrant requiring sprinklers as part of repair or reconstruction. There is not a scientific basis for establishing a threshold of this nature, so the threshold must ultimately be decided by a consensus of stakeholders. The suggested 25% of a fire area being unhabitable for a period of 90 or more days seems sufficient to serve as a benchmark. It was pointed out during discussion that, due to permitting delays, 30 days could be a very short timeframe for construction to be completed. However, it's difficult to argue that a fire wasn't a major incident if 25%+ of a fire area remains uninhabitable for 60 days. For example, an 8-unit fire area in an apartment building would require 3 or more units to be vacated for 60 days to trigger this section. A 40-room hotel would require 11 rooms to be vacated for more than 60 days to trigger this section. True, this might encourage a rapid pace of reconstruction by some to avoid the sprinkler requirement, but so be it. It's better to have this requirement as a starting point in the code, and if someone can beat the clock, that should not be a reason to do nothing in the code.

With regard to Step 2, the portion of a building that should be required to be sprinklered where Step 1 has been satisfied, there were two discussion paths, either the entire building or only a sufficiently damaged fire area. This proposal suggests the latter based on feedback from the task group. Considering that a fire area might be a floor or section of a large building, much of which might not have been affected by the fire incident, some would regard it as excessive to require retrofitting sprinklers in those unaffected areas since such areas would not otherwise undergo repair or reconstruction. Hence, the suggested path of only requiring sufficiently impacted fire areas to be sprinklered. Such areas would probably experience substantial removal of drywall due to smoke and water damage, allowing for sprinkler system installation when the structure is exposed.

Cost Impact: Increase

Estimated Immediate Cost Impact:

The cost of installing a fire sprinkler system in a multifamily residential occupancy is nominally 1% to 2% of the total construction cost. This can vary depending on the building design, local codes, and specific system requirements. Estimated cost range from $2 to $10 per square foot is likely.

Estimated Immediate Cost Impact Justification (methodology and variables):

Cost will vary depending on the extent of damage and repair or reconstruction to be done after a particular incident. Also, existing water supply and standpipe piping have an impact on the extent of work required to accomplish an installation. In addition, sprinkler installation costs may be offset by taking advantage of sprinkler incentives associated with other aspects of construction that reduce overall costs.

EB11-25

EB12-25

IEBC: 301.2

Proponents: Peter Somers, Magnusson Klemencic Associates, representing self (psomers@mka.com); Kelly Cobeen, Wiss Janney Elstner Associates, representing Self (kcobeen@wje.com)

2024 International Existing Building Code

Revise as follows:

301.2 Repairs. *Repairs* shall comply with the requirements of Chapter 4. *Reroofing*, other than *roof repairs* to damaged areas, shall be considered an *alteration* and must comply with either Chapter 5 or Chapter 7.

Reason: There is a significant amount of confusion as to when reroofing work would be performed as a repair under Chapter 4 or as an alteration when following the prescriptive method (Chapter 5) or the work area method (Chapter 7). Sections 503.6 and 706.3.1 require unreinforced masonry (URM) parapets to be braced when 25% of the roofing materials are replaced. Similarly, Sections 503.12 and 706.3.2 require the entire roof diaphragm and its connections to be evaluated in high-wind regions when 50% of the roofing materials are replaced.

Some designers and building owners argue that replacing a roof that has exceeded its useful life should be considered a repair, and not an alteration, and should therefore comply with Chapter 4. Chapter 4 would not require the bracing of URM parapets in high-seismic regions or the evaluation of the roof diaphragm and connections in a high-wind region.

As Chapter 3 is the scoping chapter for all compliance methods, this is an appropriate location to make it clear that reroofing operations, other than roof repairs after a wind or other event, are required to meet the provisions for alterations under Chapter 5 or 7. This clarification is needed to ensure that the URM parapets in high seismic regions are braced and roof diaphragms in high wind regions are adequate prior to a building owner replacing the roofing materials when the existing materials have reached their useful life.

There are numerous FEMA publications that address the importance of bracing URM parapets in high seismic regions, and this change would clarify when such a retrofit would be required. A partial list of these FEMA publications are as follows:

FEMA P-774, *Unreinforced Masonry Buildings and Earthquakes, Developing Successful Risk Reduction Programs*

FEMA P-2082-1, *NEHRP Recommended Seismic Provisions for New Buildings and Other Structures, Volume 1 – Part 1 Provisions, Part 2 Commentary*

FEMA P-155, R*apid Visual Screening of Buildings for Potential Seismic Hazards: Supporting Documentation*

FEMA P-154, *Rapid Visual Screening of Buildings for Potential Seismic Hazards: A Handbook*

FEMA 547, *Techniques for the Seismic Rehabilitation of Existing Buildings*

FEMA P-58-2, *Seismic Performance Assessment of Buildings, Volume 2 – Implementation Guide, Second Edition*

FEMA, *Wasatch Front Unreinforced Masonry Risk Reduction Strategy*

FEMA, *Wasatch Front URM Risk Reduction Strategy Best Practices and Replicability*

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

The intent of the current IEBC is to treat reroofing as an alteration subject to the requirements of Chapters 5 and 7. This proposal merely clarifies that intent.

EB13-25

IEBC: 301.3, 301.3.1, 301.3.2, 301.3.3

Proponents: David Renn, PE, SE, City and County of Denver, representing Code Change Committee of ICC Colorado Chapter (david.renn@denvergov.org)

2024 International Existing Building Code

Revise as follows:

301.3 Alteration, addition or change of occupancy. *Existing buildings* complying with this code as required by *International Residential Code* Section R102.6.1, shall comply with Section 301.3.1. The *alteration*, *addition* or *change of occupancy* of all other *existing buildings* shall comply with one of the methods listed in Section 301.3.1, 301.3.2 or 301.3.3 as selected by the applicant. Sections 301.3.1 through 301.3.3 shall not be applied in combination with each other.

Exception: Subject to the approval of the *code official*, *alterations* complying with the laws in existence at the time the building or the affected portion of the building was built shall be considered in compliance with the provisions of this code. New structural members added as part of the *alteration* shall comply with the *International Building Code*. This exception shall not apply to the following:

1. *Alterations* for accessibility required by Section 306.
2. *Alterations* that constitute *substantial improvement* in *flood hazard areas*, which shall comply with Sections 503.2, 701.3 or 1303.1.3.
3. Structural provisions of Section 304, Chapter 5 or to the structural provisions of Sections 706, 805 and 906.

301.3.1 Prescriptive compliance method. *Alterations*, *additions* and *changes of occupancy* complying with Chapter 5 of this code in buildings complying with the *International Fire Code* shall be considered in compliance with the provisions of this code.

301.3.2 Work area compliance method. *Alterations*, *additions* and *changes of occupancy* complying with the applicable requirements of Chapters 6 through 12 of this code shall be considered in compliance with the provisions of this code.

301.3.3 Performance compliance method. *Alterations*, *additions* and *changes of occupancy* complying with Chapter 13 of this code shall be considered in compliance with the provisions of this code.

Reason: IRC Section R102.6.1 indicates that where an addition, alteration or change of use is made to an existing structure that results in a use, occupancy, height or means of egress outside of the scope of the IRC, the building must comply with the IEBC.

> **R102.6.1 Additions, alterations, change of use or repairs.** Additions, alterations or repairs to any structure shall conform to the requirements for a new structure without requiring the existing structure to comply with the requirements of this code, unless otherwise stated. Additions, alterations, repairs and relocations shall not cause an existing structure to become less compliant with the provisions of this code than the existing building or structure was prior to the addition, alteration or repair. Where additions, alterations or changes of use to an existing structure result in a use, occupancy, height or means of egress outside the scope of this code, the building shall comply with the International Existing Building Code.

IEBC Section 301.3 then allows the project to use either the prescriptive, work area or performance compliance methods. This proposal is to change this to only allow the prescriptive compliance method when changing from an IRC regulated structure to an IEBC regulated structure. This is needed since the work area and performance compliance methods do not address a change in codes, whereas the prescriptive compliance method will typically require work or change of occupancy to comply with the IBC.

There are significant differences between the IRC and the IBC that are not accounted for in the work area and performance compliance methods, such as means of egress requirements and exterior wall requirements for fire-resistance ratings and openings. In the work area compliance method, this is most easily seen in Section 1011 for change of occupancy classification - this section includes hazard tables for various components of design such as means of egress, heights and areas, and exterior walls, and these tables are based on occupancy classification. It is not possible to use these tables when changing from the IRC to the IEBC/IBC since the IRC does not have occupancy classifications. Also, it would not be appropriate to arbitrarily assign an occupancy classification to an IRC use, since there

are fundamental differences in the codes. For example, the IRC has no common path of travel limitations so a change to an equal hazard category, based on an assigned occupancy for the IRC use, would allow unlimited common path of travel before two exits are required. Also, the IRC allows non-rated exterior walls with unlimited openings at a fire separation distance of 3' if a sprinkler system is provided, and 5' if not - the IBC doesn't allow this until 10' (for a VB construction type). If an IRC single family home was to be assigned an R-3 occupancy for the hazard tables, it could be changed to Group A, B, E, I, F-2, S-2 or U with non-rated exterior walls and unlimited openings at an FSD of 3' or 5', which isn't appropriate.

The performance compliance method also appears to not account for a change in code from IRC to IBC since it does not account for fundamental differences in the code. For example, exterior wall requirements for fire-resistance rating and openings are not even considered.

Please support this change requiring prescriptive compliance method when changing from and IRC regulated project to an IEBC/IBC regulated project. Using other compliance methods is not appropriate since fundamental code differences are not accounted for.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal will not change the cost of construction for the following reasons:

1. Use of the work area compliance method is currently allowed but is not possible to use since the hazard tables cannot be used without an existing occupancy group. Therefore, eliminating this option will not change the cost of construction.

2. Use of the performance compliance method is rarely used even when changing occupancy within the IBC, and the proponents of this proposal have never seen it used for a change from an IRC regulated structure to an IBC regulated structure. If this method were to be used for a change from IRC to IBC, the cost could go up or down relative to the prescriptive path required with this proposal.

EB13-25

EB14-25

IEBC: 302.2

Proponents: Andrew Bevis, Chair, representing Plumbing, Mechanical and Fuel Gas Code Action Committee (pmgcac@iccsafe.org); Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

302.2 Additional codes. *Alterations, repairs, additions* and *changes of occupancy* to, or relocation of, *existing buildings* and structures shall comply with the provisions for *alterations, repairs, additions* and *changes of occupancy* or relocation, respectively, in this code and the *International Energy Conservation Code*, *International Fire Code*, *International Fuel Gas Code*, *International Mechanical Code*, *International Plumbing Code*, *International Private Sewage Disposal Code*, *International Property Maintenance Code*, *International Residential Code*, *International Swimming Pool and Spa Code* and NFPA 70. Where provisions of the other codes conflict with provisions of this code, the provisions of this code shall take precedence.

Reason: Any alteration, repair, addition or change of occupancy related to swimming pools and spas should be done in accordance with the International Swimming Pool and Spa Code (ISPSC). There are unique hazards associated with pools and spas that are specifically addressed by the provisions of the ISPSC.

PMGCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held numerous virtual meetings open to any interested party. Related documents and reports are posted on the PMGCAC website at PMGCAC webpage.

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

Jurisdictions will be enforcing the minimum requirements for pools and spas. This proposal only clarifies that they would be using the ISPSC for enforcement.

EB14-25

EB15-25

IEBC: SECTION 310 (New), 302.2.1, 501.3, 707.1, 806.3

Proponents: Jeff O'Neill, Chair, representing Committee on Healthcare (ahc@iccsafe.org); Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Add new text as follows:

SECTION 310
HEALTH CARE FACILITIES

Revise as follows:

~~**302.2.1**~~ **310.1** ~~**Additional codes in health care**~~ **Health care facilities.** In existing Group I-2 occupancies, ambulatory health care *facilities*, outpatient clinics and hyperbaric *facilities*, any altered or added portion of the~~*alterations*, *repairs*, *additions* and *changes of occupancy* to, or relocation of,~~ *existing* ~~*buildings* and structures~~ medical gas system shall ~~also comply with~~ be required to meet the installation requirement in NFPA 99.

Delete without substitution:

~~**501.3 Health care facilities.** In Group I-2 *facilities*, ambulatory care *facilities* and outpatient clinics, any altered or added portion of an existing electrical or medical gas systems shall be required to meet installation and equipment requirements in NFPA 99.~~

~~**707.1 Health care facilities.** In Group I-2 facilities, ambulatory care facilities and outpatient clinics, any altered portion of an existing electrical systems shall be required to meet installation and equipment requirements in NFPA 99.~~

~~**806.3 Health care facilities.** In Group I-2 *facilities*, ambulatory care *facilities* and outpatient clinics, any added portion of an existing electrical system shall be required to meet installation and equipment requirements in NFPA 99.~~

Reason: Provisions for healthcare facilities are current located in Chapter 3, the prescriptive method under general; and in the work area method under alterations Level 1 and 2. The intent of this relocation to Chapter 3 is so that this provision only needs to be addressed once. This will reduce duplication and possibly not be coordinated over time.While the current text does not include hyperbaric facilities, IBC Section 425 indicates compliance with NFPA 99.

This proposal is part of a package of code changes to expand and reorganize Chapter 3 to increase understanding of the options available in the IEBC. Please see the proposal for reorganization for a clean version of what Chapter 3 will look like if all the proposals are successful.

This proposal is submitted by the ICC Building Code Action Committee (BCAC) the ICC Committee for Healthcare (CHC). .

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

The Committee on Healthcare (CHC) was established by the ICC Board of Directors in 2011 to pursue opportunities to study and develop effective and efficient provisions for Hospital, Nursing Homes, Assisted Living and Ambulatory Care Facilities. This committee was formed in cooperation with the American Society for Healthcare Engineering (ASHE). In July of 2017, the ICC Board made CHC a standing committee. In 2023 and 2024 the CHC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the CHC website at CHC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is a relocation of requirements. It is not intended to have any change to construction requirements.

EB15-25

EB16-25

IEBC: 302.3, 302.3.1 (New), 302.3.1.1 (New), 302.3.1.2 (New), 302.3.1.3 (New), AISC (New)

Proponents: Bonnie Manley, representing AISC (manley@aisc.org); Robert Pekelnicky, Degenkolb Engineers, representing Self (rpekelnicky@degenkolb.com)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

302.3 Existing materials. Materials already in use in a building in compliance with requirements or approvals in effect at the time of their erection or installation shall be permitted to remain in use unless determined by the code official to be *unsafe*.

Add new text as follows:

302.3.1 Evaluation of existing structural members and connections. The evaluation of existing structural members and connections shall comply with Sections 302.3.1.1 through 302.3.1.3.

302.3.1.1 Existing structural steel and composite structural steel and concrete members and connections. The evaluation, repair, and alteration of existing structural steel and composite structural steel and concrete members and connections shall be in accordance with AISC 360, Appendix 5.

302.3.1.2 Existing structural stainless steel members and connections. The evaluation, repair, and alteration of existing structural stainless steel members and connections shall be in accordance with AISC 370, Appendix 5.

302.3.1.3 Other existing structural members and connections. The evaluation, repair, and alteration of existing structural members and connections not covered in Section 302.3.1.1 and 302.3.1.2 shall be in accordance with the *International Building Code* as amended by this code.

Add new standard(s) as follows:

AISC

American Institute of Steel
130 East Randolph Street, Suite 2000
Chicago, IL 60601-6219
United States

ANSI/AISC 360—22	Specification for Structural Steel Buildings
ANSI/AISC 370—21	Specification for Structural Stainless Steel Buildings

Reason: While IEBC Section 302.4.1 points users to the IBC for provisions on new structural members and connections, there is no comparable guidance in IEBC Section 302.3 for existing structural members and connections. This proposal is intended to provide the missing requirements for existing buildings utilizing structural steel, composite structural steel and concrete, and structural stainless steel members and connections by adopting direct references to AISC 360 and AISC 370. Both standards are already recognized and adopted by the IBC Chapter 22. Each document includes a mandatory appendix for the evaluation of existing structural members and connections by one of three methods: structural analysis, load tests, or a combination of structural analysis and load tests. Additionally, AISC 360 Appendix 5 specifically contains provisions that allow the user to establish the capacities of older steel connectors, which is important when assessing alterations, additions, and repairs to existing structural steel buildings that have riveted construction.

It is anticipated that guidance for other existing structural materials may be added to this section in the future. In the meantime, Section 302.3.1.3 has been added to provide a direct pointer to the IBC for materials not covered in the other subsections.

AISC makes its standards available to all free of charge at https://www.aisc.org/publications/steel-standards/.

Bibliography: AISC (2022), Specification for Structural Steel Buildings, ANSI/AISC 360-22, American Institute of Steel Construction,

Chicago, Ill., August 1, 2022. Available at: https://www.aisc.org/publications/steel-standards/.

AISC (2021), Specification for Structural Stainless Steel Buildings, ANSI/AISC 370-21, American Institute of Steel Construction, Chicago, Ill., June 11, 2021. Available at: https://www.aisc.org/publications/steel-standards/.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

AISC 360 and AISC 370 are already adopted in IBC Chapter 22. This proposal is simply adding a direct pointer in the IEBC to Appendix 5 in both documents.

Staff Analysis: The proposed referenced standards, ANSI/AISC 360--22, Specification for Structural Steel Buildings and ANSI/AISC 370--21, Specification for Structural Stainless Steel Buildings are currently referenced in the IBC.

EB16-25

EB17-25

IEBC: [BS] 304.3.3 (New)

Proponents: David Bonowitz, representing David Bonowitz, S.E. (dbonowitz@att.net); Kelly Cobeen, Wiss Janney Elstner Associates, representing Self (kcobeen@wje.com); Peter Somers, Magnusson Klemencic Associates, representing self (psomers@mka.com); Julie C. Furr, representing NCSEA Existing Building Committee (jcfurr@ssr-inc.com)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

Add new text as follows:

[BS] 304.3.3 Structural observation. Structural observation in accordance with Section 1704.6 of the *International Building Code*, shall be provided for all work required to comply with either Section 304.3.1 or Section 304.3.2, regardless of the requirements and allowances in Section 1704.6.1 of the *International Building Code*.

Exception: Retrofit work that does not require design by a registered design professional need not comply with this section.

Reason: Structural observation, along with building department inspections and special inspections, is an important part of construction quality assurance for seismic retrofit.

IBC Section 1704.6 is the general provision for structural observation for new buildings. However, Section 1704.6.1 specifically requires structural observation only for Risk Category III-IV, high-rise buildings (H>75'), Seismic Design Category E, and where required by discretion of the design professional or the code official. Therefore, to ensure structural observation for all triggered retrofits (and to simplify the requirement), the proposal includes the phrase "regardless of the requirements and allowances in Section 1704.6.1." The proposal will change nothing for retrofits designed with IEBC Chapter A1, A2, or A4, all of which already explicitly require structural observation.

The proposed exception recognizes that some retrofits (such as most retrofits using IEBC Appendix A3 (or ICC-1300 if that standard is added to the IEBC by a separate proposal) do not require the involvement of a design professional, so making this requirement in those cases would impose a significant additional cost and could wrongly make a design professional liable for the design. The exception does not mention those standards by name, however, since they also encompass engineered design in some cases.

The proposal is limited to structural observation because IEBC Section 109 already addresses inspections, and Section 109.3.9 specifically calls for Special Inspection per the IBC. More specific adjustments to IBC Chapter 17 suited to existing building projects might be appropriate, but they are beyond the scope of this limited proposal, since a full revision of Chapter 17 would also require coordination with AISC or other provisions for existing buildings.

Cost Impact: Increase

Estimated Immediate Cost Impact:

Where structural observation would already be required or would not be required at all (see the Impact Justification), there would be no cost impact. Where a cost increase occurs, it is a design cost, not a construction cost.
We estimate the design cost increase, roughly and conservatively, as $1,000 per site visit, where the number of structural observation site visits could be just one or could be more, depending on the size and scope of the retrofit. In accordance with IBC Section 1704.6.1, compliance is generally by affidavit, with the design professional proposing the "frequency and extent" of observation appropriate to "representative" conditions, then submitting a written statement when the work is complete. Depending on the size and scope of the retrofit, the structural observation could involve a single site visit or perhaps a dozen or more over the course of a long or complicated project.

Estimated Immediate Cost Impact Justification (methodology and variables):

As noted in the reason statement, seismic retrofit using IEBC Appendix A1, A2, or A4 already requires structural observation, so there will

be no cost increase for those projects. Retrofit using the prescriptive methods of IEBC Appendix A3 or ICC-1300 will have no cost increase because they are exempt by the proposed exception. And in many cases where the code official would already require compliance with IBC Chapter 17 for a retrofit project (as many do), there would be no cost increase relative to current practice.

In other cases (low rise buildings in Risk Category I or II and Seismic Design Category B-D, using IBC-based or ASCE 41 criteria), the cost increase would be based on the number of hours to complete the structural observation site visits and reporting multiplied by the design professional's hourly billing rate.

Our estimate of $1,000 per site visit is an approximation that will vary with local or regional billing rates and professional practices, as well as project conditions. It is intended to include the time needed for the site visit itself, documentation of the site visit, and travel to a nearby site.

EB17-25

EB18-25

IEBC: [BS] 304.3.1, [BS] TABLE 304.3.1, [BS] 304.3.2, [BS] TABLE 304.3.2

Proponents: Peter Somers, Magnusson Klemencic Associates, representing self (psomers@mka.com); Kelly Cobeen, Wiss Janney Elstner Associates, representing Self (kcobeen@wje.com)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

Revise as follows:

[BS] 304.3.1 Full seismic criteria. Where required, seismic evaluation or design shall comply with one of the following methodologies, which shall not be applied in combination with each other:

1. Section 1613 of the *International Building Code* using 100 percent of hte prescribed forces. Where the existing seismic force-resisting system is a type that can be designated as "Ordinary," values of R, Ω_0 and C_d used for analysis in accordance with Chapter 16 of the *International Building Code* shall be those specified for structural systems classified as "Ordinary" in accordance with Table 12.2-1 of ASCE 7, unless it can be demonstrated that the structural system will provide performance equivalent to that of a "Detailed," "Intermediate" or "Special" system. <u>The requirements for deformation compatibility in Section 12.12.4 of ASCE 7 shall be applicable for all structures in Seismic Design Categories D through F.</u>
2. ASCE 41, using a Tier 3 procedure and both levels of the two-level performance objective in Table 304.3.1 for the applicable *risk category*.

[BS] TABLE 304.3.1 PERFORMANCE OBJECTIVES FOR USE IN ASCE 41 FOR COMPLIANCE WITH FULL SEISMIC CRITERIA

RISK CATEGORY (Based on IBC Table 1604.5)	STRUCTURAL PERFORMANCE LEVEL FOR USE WITH BSE-1N EARTHQUAKE HAZARD LEVEL	STRUCTURAL PERFORMANCE LEVEL FOR USE WITH BSE-2N EARTHQUAKE HAZARD LEVEL
I	Life Safety (S-3)	Collapse Prevention (S-5)
II	Life Safety (S-3)	Collapse Prevention (S-5)
III	Damage Control (S-2)	Limited Safety (S-4)
IV	Immediate Occupancy (S-1)	Life Safety (S-3)

[BS] 304.3.2 Reduced seismic criteria. Where required, seismic evaluation or design shall comply with one of the following methodologies, which shall not be applied in combination with each other:

1. Section 1613 of the *International Building Code* using 75 percent of the prescribed forces. Values of R, Ω_0 and C_d used for analysis shall be as specified in Section 304.3.1 of this code. <u>The requirements for deformation compatibility in Section 12.12.4 of ASCE 7 shall be applicable for all structures in Seismic Design Categories D through F using the forces prescribed in this section.</u>
2. Applicable chapters of Appendix A of this code, for structures or portions of structures specified in Items 2.1 through 2.4 subject to the limitations of the respective chapter.
   2.1. Chapter A1 for unreinforced masonry bearing wall buildings assigned to *Risk Category* I or II.
   2.2. Chapter A2 for the wall anchorage system in reinforced concrete and reinforced masonry wall buildings with flexible diaphragms assigned to *Risk Category* I or II.
   2.3. Chapter A3 for cripple walls and sill plate anchorage in residential buildings of light-frame wood construction assigned to *Risk Category* I or II.
   2.4. Chapter A4 for soft, weak or open-front wall conditions in multiple-unit residential buildings of wood construction assigned to *Risk Category* I or II.
3. ASCE 41, using the performance objective in Table 304.3.2 for the applicable *risk category*.

[BS] TABLE 304.3.2 PERFORMANCE OBJECTIVES FOR USE IN ASCE 41 FOR COMPLIANCE WITH REDUCED CRITERIA FORCES

RISK CATEGORY (Based on IBC Table 1604.5)	STRUCTURAL PERFORMANCE LEVEL FOR USE WITH BSE-1E EARTHQUAKE HAZARD LEVEL	STRUCTURAL PERFORMANCE LEVEL FOR USE WITH BSE-2E EARTHQUAKE HAZARD LEVEL
I	Life Safety (S-3). See Note a	Collapse Prevention (S-5)
II	Life Safety (S-3). See Note a	Collapse Prevention (S-5)
III	Damage Control (S-2). See Note a	Limited Safety (S-4). See Note b
IV	Immediate Occupancy (S-1)	Life Safety (S-3). See Note c

a. For Risk Categories I, II and III, the Tier 1 and Tier 2 procedures need not be considered for the BSE-1E earthquake hazard level.

b. For Risk Category III, the Tier 1 screening checklists shall be based on the Collapse Prevention, except that checklist statements using the Quick Check provisions shall be based on *MS*-factors that are the average of the values for Collapse Prevention and Life Safety.

c. For Risk Category IV, the Tier 1 screening checklists shall be based on Collapse Prevention, except that checklist statements using the Quick Check provisions shall be based on *MS*-factors for Life Safety.

Reason: When option 1 in Section 304.3.1 or 304.3.2 is used to evaluate an existing building or retrofit, deformation compatibility assessment of the existing building is sometimes neglected by designers even though it is technically required by the current IEBC. The reference to ASCE 7, through IBC Section 1613, requires that ASCE 7 is followed completely, unless specific items are excluded by the IEBC.

However, experience suggests that some ASCE 7-based retrofits are designed based on ASCE 7 seismic forces and drifts for the new seismic force-resisting system, but the deformation compatibility of the original lateral system now acting as secondary elements is sometimes ignored. Ignoring deformation compatibility can lead to a collapse of the gravity load supporting system. This is especially critical for existing buildings that do not have the structural integrity and interconnected requirements found in the design standards for new construction.

Several studies have documented these conditions including the ongoing ATC-140 project [ATC 140-7 “Update of Seismic Evaluation and Retrofit of Existing Buildings Guidance” prepared by the Applied Technology Council for FEMA] and a design guide prepared by the Structural Engineers of Southern California (SEAOSC) and ICC in support of using 75% of IBC forces for seismic retrofits in the City of Los Angeles [“Design Guide Volume 1, City of Los Angeles Mandatory Earthquake Hazard Reduction in Existing Non-Ductile Concrete Buildings (NDC)” 2016]

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal is simply clarifying that the deformation compatibility provisions that are already required by ASCE 7 are applicable to the use of ASCE 7 to existing buildings.

EB18-25

EB19-25

IEBC: SECTION 304, [BS] 304.3.1, [BS] TABLE 304.3.1, [BS] 304.3.2, [BS] TABLE 304.3.2, ASCE/SEI Chapter 16

Proponents: Jennifer Goupil, American Society of Civil Engineers and Structural Engineering Institute, representing American Society of Civil Engineers (jgoupil@asce.org); Peter Somers, Magnusson Klemencic Associates, representing ASCE/SEI 41 (psomers@mka.com); Robert Pekelnicky, Degenkolb Engineers, representing Self (rpekelnicky@degenkolb.com)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

SECTION 304
STRUCTURAL DESIGN LOADS AND EVALUATION AND DESIGN PROCEDURES

Revise as follows:

[BS] 304.3.1 Full seismic criteria. Where required, seismic evaluation or design shall comply with one of the following methodologies, which shall not be applied in combination with each other:

1. Section 1613 of the *International Building Code*. Where the existing seismic force-resisting system is a type that can be designated as "Ordinary," values of R, Ω_0 and C_d used for analysis in accordance with Chapter 16 of the *International Building Code* shall be those specified for structural systems classified as "Ordinary" in accordance with Table 12.2-1 of ASCE 7, unless it can be demonstrated that the structural system will provide performance equivalent to that of a "Detailed," "Intermediate" or "Special" system.
2. Section 2.4.4. of ASCE 41, using ~~a~~ the Tier 3 procedure and both levels of the two-level structural performance objective in ASCE 41 Table 2-5 ~~Table 304.3.1~~ for the applicable *risk category*.

Delete without substitution:

~~[BS] TABLE 304.3.1 PERFORMANCE OBJECTIVES FOR USE IN ASCE 41 FOR COMPLIANCE WITH FULL SEISMIC CRITERIA~~

~~RISK CATEGORY (Based on IBC Table 1604.5)~~	~~STRUCTURAL PERFORMANCE LEVEL FOR USE WITH BSE-1N EARTHQUAKE HAZARD LEVEL~~	~~STRUCTURAL PERFORMANCE LEVEL FOR USE WITH BSE-2N EARTHQUAKE HAZARD LEVEL~~
~~I~~	~~Life Safety (S-3)~~	~~Collapse Prevention (S-5)~~
~~II~~	~~Life Safety (S-3)~~	~~Collapse Prevention (S-5)~~
~~III~~	~~Damage Control (S-2)~~	~~Limited Safety (S-4)~~
~~IV~~	~~Immediate Occupancy (S-1)~~	~~Life Safety (S-3)~~

Revise as follows:

[BS] 304.3.2 Reduced seismic criteria. Where required, seismic evaluation or design shall comply with one of the following methodologies, which shall not be applied in combination with each other:

1. Section 1613 of the *International Building Code* using 75 percent of the prescribed forces. Values of R, Ω_0 and C_d used for analysis shall be as specified in Section 304.3.1 of this code.

2. Applicable chapters of Appendix A of this code, for structures or portions of structures specified in Items 2.1 through 2.4 subject to the limitations of the respective chapter.

   2.1. Chapter A1 for unreinforced masonry bearing wall buildings assigned to *Risk Category* I or II.

   2.2. Chapter A2 for the wall anchorage system in reinforced concrete and reinforced masonry wall buildings with flexible diaphragms assigned to *Risk Category* I or II.

   2.3. Chapter A3 for cripple walls and sill plate anchorage in residential buildings of light-frame wood construction assigned to *Risk Category* I or II.

   2.4. Chapter A4 for soft, weak or open-front wall conditions in multiple-unit residential buildings of wood construction assigned to *Risk Category* I or II.

3. Section 2.4.1 of ASCE 41, using the structural performance objective in ASCE 41 Table 2-3 or Table 2-4 ~~Table 304.3.2~~ for the applicable *risk category*. Compliance with the Benchmark Buildings provisions in ASCE 41 Section 3.4 shall be deemed to comply with this section.

Delete without substitution:

~~[BS] TABLE 304.3.2 PERFORMANCE OBJECTIVES FOR USE IN ASCE 41 FOR COMPLIANCE WITH REDUCED CRITERIA FORCES~~

~~RISK CATEGORY (Based on IBC Table 1604.5)~~	~~STRUCTURAL PERFORMANCE LEVEL FOR USE WITH BSE-1E EARTHQUAKE HAZARD LEVEL~~	~~STRUCTURAL PERFORMANCE LEVEL FOR USE WITH BSE-2E EARTHQUAKE HAZARD LEVEL~~
~~I~~	~~Life Safety (S-3). See Note a~~	~~Collapse Prevention (S-5)~~
~~II~~	~~Life Safety (S-3). See Note a~~	~~Collapse Prevention (S-5)~~
~~III~~	~~Damage Control (S-2). See Note a~~	~~Limited Safety (S-4). See Note b~~
~~IV~~	~~Immediate Occupancy (S-1)~~	~~Life Safety (S-3). See Note c~~

~~a. For Risk Categories I, II and III, the Tier 1 and Tier 2 procedures need not be considered for the BSE-1E earthquake hazard level.~~

~~b. For Risk Category III, the Tier 1 screening checklists shall be based on the Collapse Prevention, except that checklist statements using the Quick Check provisions shall be based on *MS* factors that are the average of the values for Collapse Prevention and Life Safety.~~

~~c. For Risk Category IV, the Tier 1 screening checklists shall be based on Collapse Prevention, except that checklist statements using the Quick Check provisions shall be based on *MS* factors for Life Safety.~~

Revise as follows:

ASCE/SEI

American Society of Civil Engineers Structural Engineering Institute
1801 Alexander Bell Drive
Reston, VA 20191-4400

41—~~2017~~ 2023 Seismic Evaluation and Retrofit of Existing Buildings

Reason: This proposal is completely editorial, replacing the provisions in these sections of the IEBC with direct reference to the same provisions in ASCE 41. There are two primary reasons for this change:

1. This makes the references to ASCE 41 more consistent with the references to ASCE 7 by simply pointing to the applicable section in the reference standard rather than repeating the performance criteria. For ASCE 7, Sections 304.3.1 item 1 and 304.3.2 item 1 point to ASCE 7 for the seismic design parameters (R, Ω0, Cd) and the Importance Factor (implicitly, since there is no direct reference), which relates seismic performance to risk category. The referenced sections of ASCE 41 (Section 2.4.5 for full seismic

criteria and Section 2.4.1 for reduced seismic criteria) include references to tables that define performance based on risk category and the remainder of the ASCE 41 standard includes requirements for achieving that performance. The duplication of ASCE 41 Tables 2-5 and 2-3 within the IEBC is unnecessary and could lead to conflicts if there are changes to the corresponding changes to the ASCE 41 tables.

2. Including the ASCE 41 performance criteria tables in the IEBC was helpful, and in fact necessary for previous versions of ASCE 41, since the ASCE 41 standard was not fully aligned with risk categories as used by the IBC and ASCE 7. However, with the publication of ASCE 41-23, the standard is now fully aligned with risk categories, again rendering duplication of the performance criteria tables (and the footnotes to Table 304.3.2) unnecessary, and potentially in conflict with ASCE 41.

In short, this proposal follows the relationship between ASCE 7 and the IBC/IEBC, whereby the code defines seismic performance through the assignment of risk category, and the standard provides the technical requirements for achieving that performance objective commensurate with the assigned risk category.

In addition, the proposal provides a direct reference to the ASCE 41 Benchmark Building provisions, which allows recently constructed buildings to be shown in compliance with the required seismic performance objectives without requiring seismic evaluation. The Benchmark Building provisions have always been a path to compliance with reduced seismic criteria when using ASCE 41, but the direct reference makes this compliance path more clear. As more and more “modern” structures (those designed to recent editions of ASCE 7) are being renovated, it is helpful to allow these renovations to be deemed to comply without performing unnecessary seismic evaluations. Again, this path to compliance is allowed in the 2024 IEBC by referencing ASCE 41; the proposed updates make this a more direct reference.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

No cost impacts. This proposal is fully editorial, replacing specific criteria in the IEBC with pointer to reference the same criteria in ASCE 41.

Staff Analysis: This proposal includes technical revisions to the code text to coordinate with an update of an existing referenced standard. This standard must be completed and readily available prior to the Public Comment Hearing. See CP28 Section 4.6.3.1.2.

EB19-25

EB20-25

IEBC: [BS] 304.3.2, ICC Chapter 16 (New)

Proponents: Kelly Cobeen, Wiss Janney Elstner Associates, representing Self (kcobeen@wje.com); Julie Furr, Smith Seckman Reid, Inc, representing Julie Furr, PE (jcfurr@ssr-inc.com)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

Revise as follows:

[BS] 304.3.2 Reduced seismic criteria. Where required, seismic evaluation or design shall comply with one of the following methodologies, which shall not be applied in combination with each other:

1. Section 1613 of the *International Building Code* using 75 percent of the prescribed forces. Values of R, Ω_0 and C_d used for analysis shall be as specified in Section 304.3.1 of this code.
2. Applicable chapters of Appendix A of this code, for structures or portions of structures specified in Items 2.1 through 2.4 subject to the limitations of the respective chapter.
   2.1. Chapter A1 for unreinforced masonry bearing wall buildings assigned to *Risk Category* I or II.
   2.2. Chapter A2 for the wall anchorage system in reinforced concrete and reinforced masonry wall buildings with flexible diaphragms assigned to *Risk Category* I or II.
   2.3. Chapter A3 for cripple walls and sill plate anchorage in residential buildings of light-frame wood construction assigned to *Risk Category* I or II.
   2.4. Chapter A4 for soft, weak or open-front wall conditions in multiple-unit residential buildings of wood construction assigned to *Risk Category* I or II.
3. ASCE 41, using the performance objective in Table 304.3.2 for the applicable *risk category*.
4. <u>The provisions of ICC 1300 for one- and two-family dwellings or townhouses of wood light-frame construction, addressing one or more of the following vulnerable configurations.</u>
   4.1. <u>Crawlspace dwellings per Chapter 4 of ICC 1300.</u>
   4.2 <u>Living-space-over-garage dwellings per Chapter 5 of ICC 1300.</u>
   4.3. <u>Hillside dwellings per Chapter 6 of ICC 1300.</u>

Add new standard(s) as follows:

ICC

International Code Council, Inc.
200 Massachusetts Avenue, NW, Suite 250
Washington, DC 20001

<u>ICC 1300-2024</u> <u>Vulnerability-based Seismic Assessment and Retrofit of One- and Two-Family Dwellings.</u>

Reason: The recently published document *Vulnerability-Based Seismic Assessment and Retrofit of One- and Two-Family Dwellings Volume 1 - Prestandard* (FEMA P-1100, 2018) has been converted to Standard ICC 1300 by the ICC Residential Assessment and Seismic Retrofit Standards Committee. The FEMA prestandard and the ICC standard have used state-of-the-art analysis tools and performance-based methods to develop seismic retrofit provisions for cripple wall, living-space-over-garage, and hillside dwellings.

This proposal recognizes this seismic retrofit standard as providing seismic performance that is equivalent to or exceeds the other methodologies listed in Section 304.3.2. The ICC 1300 standard expands the scope of available prescriptive residential seismic retrofit solutions, thereby encouraging seismic

retrofit.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal provides the option of additional methodologies for seismic retrofit, and in particular prescriptive design methodologies that do not require engineering. The choice to use this methodology is voluntary. This proposal does not impose any new mandatory requirements.

Staff Analysis: A review of the standard proposed for inclusion in the code, ICC 1300--2024 Vulnerability-based Seismic Assessment and Retrofit of One- and Two-Family Dwellings, with regard to some of the key ICC criteria for referenced standards (Section 4.6 of CP#28) will be posted on the ICC website on or before April 1, 2025.

EB20-25

EB21-25

IEBC: 306.6.1.1, 306.7.12, 306.7.13, 306.7.16, 306.7.18.2

Proponents: Grant Ullrich, Chair, representing ICC Adaptive Reuse Working Group (grant.ullrich@cityofchicago.org); Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

306.6.1.1 Additions for elevators. Where an *addition* is being constructed exclusively to accommodate the installation of an elevator or elevators to improve accessibility, an accessible means of egress in accordance with Section 1009.1 of the *International Building Code* is not required where all of the following conditions are provided:

1. Two-way communication is provided at all elevator landings that are part of the *addition* in accordance with Section 1009.8 of the *International Building Code*.
2. Each elevator landing is on floor level with access to a horizontal exit or to a stairway with a width of not less than 36 inches (914 mm).
3. The elevator does not serve a required accessible ~~floor~~ story or ~~occupied~~ occupiable roof more than four stories above or below the level of exit discharge.

306.7.12 Toilet rooms. Where it is *technically infeasible* to alter existing toilet rooms to be accessible, one accessible single-user toilet room or one accessible family or assisted-use toilet room constructed in accordance with Section 1110.2.1 of the *International Building Code* is permitted. This toilet room shall be located on the same ~~floor~~ *story* and in the same area as the existing toilet rooms. At the inaccessible toilet rooms, directional signs indicating the location of the nearest such toilet room shall be provided. These directional signs shall include the International Symbol of Accessibility, and sign characters shall meet the visual character requirements in accordance with ICC A117.1.

306.7.13 Bathing rooms. Where it is *technically infeasible* to alter existing bathing rooms to be accessible, one accessible single-user bathing room or one accessible family or assisted-use bathing room constructed in accordance with Section 1110.2.1 of the *International Building Code* is permitted. This accessible bathing room shall be located on the same ~~floor~~ *story* and in the same area as the existing bathing rooms. At the inaccessible bathing rooms, directional signs indicating the location of the nearest such bathing room shall be provided. These directional signs shall include the International Symbol of Accessibility, and sign characters shall meet the visual character requirements in accordance with ICC A117.1.

306.7.16 Dressing, fitting and locker rooms. Where it is *technically infeasible* to provide accessible dressing, fitting or locker rooms at the same location as similar types of rooms, one accessible room on the same ~~level~~ *story* shall be provided. Where separate-sex *facilities* are provided, accessible rooms for each sex shall be provided. Separate-sex *facilities* are not required where only unisex rooms are provided.

306.7.18.2 Multiple-level buildings and facilities. An accessible route from an accessible entrance to public spaces on the ~~level~~ *story* of the accessible entrance shall be provided.

Reason: This proposal is a companion proposal to #10999. Please see that proposal for reasoning.

This proposal is submitted by the ICC Adaptive Reuse Working Group (ARWG).

ARWG was convened in 2024 by ICC Government Relations to explore opportunities to facilitate the reuse of existing nonresidential buildings for multi-family residential uses through better training on use of the International Codes for adaptive reuse work and potential amendments to the International Codes. ARWG held numerous virtual meetings in 2024 and met in person at the 2024 annual business meeting in Long Beach. ARWG consists of code officials, design professionals, and other interested parties.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This change is editorial.

EB21-25

EB22-25

IEBC: 306.7.1

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

306.7.1 Alterations affecting an area containing a primary function. Where an *alteration* affects the accessibility to, or contains an area of, *primary function*, the route to the *primary function* area shall be accessible. Toilet facilities and drinking fountains serving the area of *primary function*, including the route from the area of primary function to these facilities, shall be accessible. ~~Priority shall be given to the improvements affecting the accessible route to the primary function area.~~

Exceptions:

1. The cumulative costs of providing the accessible route, toilet facilities and drinking fountains are not required to exceed 20 percent of the costs of the *alterations* affecting the area of *primary function*.
2. This provision does not apply to *alteration s*limited solely to windows, hardware, operating controls, electrical outlets and signs.
3. This provision does not apply to *alterations* limited solely to mechanical systems, electrical systems, installation or *alteration*of fire protection systems and abatement of hazardous materials.
4. This provision does not apply to *alterations* undertaken for the primary purpose of increasing the accessibility of a *facility*.
5. This provision does not apply to altered areas limited to Type B dwelling and sleeping units.

Reason: This was added by EB26-22. The proponents said this was to clarify what was required. However, while this sounds like a good idea, this will cause lots of confusion with existing buildings.

1. Some will read this to require improvements for the entrance or for an elevator above every other improvement. In the past you could have spent the money where it would have the most effect. What advantage is there for putting in supports for a ramp, or the pit for an elevator (which will not improve access for anyone) when the 20% could have fixed all the bathrooms (which helps persons with walkers, canes, those who need grab bars to stand up or sit down, lever faucets for persons with limited hand dexterity, etc.).
2. If the improvements to the building are a series of small improvements, you cannot really build part of an elevator pit, shaft and cab. Is this saying the money has to be accumulated to provide for a future elevator? Who administers this? What happens if this is years and multiple projects away?
3. The first sentence says that the accessible route includes toilet and drinking fountains. So if those are part of the accessible route, what exactly is this additional sentence trying to say is the priority?
4. The proponent of E26-22 said the fixing getting into the building should always be the priority over fixing the bathrooms. However, bathrooms and parking spaces are the number 1 and 2 when it comes to complaints. Fixing those areas benefits a much larger percentage of persons with disabilities – persons using walkers or canes, persons with stamina or strength issues, persons with mobility issue. While access for a person is a wheelchair is important, that is not the only focus of these improvements.
5. Improvements for accessibility can include lowering counters for access to services, switching out hardware or installing automatic openers at doors to make them easier to use persons with limited strength, signage for persons with vision impairments, adding visible alarms for persons with hearing impairments, etc. Are these considered part of the ‘accessible route’? Or do I need to make these a last priority?
6. A tenant would be more likely to want to concentrate on making their space as accessible across the board as possible. If a tenant wants to make this a priority for their space, that is a good thing. Is this telling them that they have to spend for improvements to the common entrance for the building instead?
7. Someone might have a small alteration for this year, but a much larger one planned for next year – where they could afford an

elevator. Why is that not a valid consideration for where money should be spent?

8. The ADA has a priority list in their initial drafts, but it was removed so that what money that was spent could be used the most effectively in that situation. All existing buildings are different, and improvements can happen continually or once every 20 years. This needs to be decided on a case-by-case basis.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

The cost for providing the accessible route will stay at the 20% maximum. The intent of this proposal is to clarify. Please see reason statement.

EB22-25

EB23-25

IEBC: 306.7.2, 306.7.2.1 (New), 503.20, 905.4

Proponents: David Renn, PE, SE, City and County of Denver, representing Code Change Committee of ICC Colorado Chapter (david.renn@denvergov.org)

2024 International Existing Building Code

Revise as follows:

306.7.2 Accessible means of egress. Except as requried by Section 306.7.2.1, accessible~~Accessible~~ means of egress required by Chapter 10 of the *International Building Code* are not required to be added in existing *facilities*.

Add new text as follows:

306.7.2.1 Two-way communication system. Where the *work area* for *alterations* exceeds 50 percent of the *building area* and the building has elevator service, a two-way communication system shall be provided where required by Section 1009.8 of the *International Building Code*.

Delete without substitution:

~~**503.20 Two-way communications systems.** Where the *work area* for *alterations* exceeds 50 percent of the building area and the building has elevator service, a two-way communication systems shall be provided where required by Section 1009.8 of the *International Building Code*.~~

~~**905.4 Two-way communications systems.** In buildings with elevator service, a two-way communication system shall be provided where required by Section 1009.8 of the *International Building Code*.~~

Reason: In the 2021 IEBC, a new requirement was added to require the addition of a two-way communication system at elevators where the work area for alterations exceeds 50 percent of the building area (i.e., a Level 3 alteration). This requirement occurs in the prescriptive compliance method in Section 503.20 (Section 503 is for alterations) and occurs in the work-area compliance method in Section 905.4 (Section 905 is means of egress for Level 3 alterations). A two-way communication system at elevators is an accessible means of egress element required in Section 1009 of the IBC.

Since accessibility requirements (including accessible means of egress) for all compliance methods are given in IEBC Section 306, it is better to locate this requirement in 306, which is what this proposal does. In particular, this requirement is moved to Section 306.7.2 which is specifically for accessible means of egress for alterations.

Also, relocating this requirement fixes an unintentional consequence that occurred when this requirement was added. The requirement was only intended for Level 3 alterations where significant work is being done; however, it is also required for a change of occupancy when using the work-area compliance method since Section 1011.5.2 requires compliance with Section 905 (including 905.4) where a change of occupancy results in an equal or lesser-hazard category. This requires a two-way communication system to be added even if there is no work being done with the change of occupancy. Interestingly, Section 1011.5.1 for a change to a higher-hazard category does not require the two-way communication system to be added. This proposal fixes this by only requiring the two-way communication system where Level 3 alterations are being completed, which is consistent with the intent.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal fixes an unintentional requirement in the code for a change of occupancy. Since this proposal changes the code to be in line with the intent of the code for two-way communication systems, it is considered a clarification that has no cost impact.

EB24-25

IEBC: SECTION 202 (New), 306.7.11.1

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org); Jeff O'Neill, Chair, representing Committee on Healthcare (ahc@iccsafe.org)

2024 International Existing Building Code

Add new definition as follows:

ASSISTED BATHING. A roll-in shower designed for adults who need assistance and configured to allow space to enable a care giver to assist.
ASSISTED TOILETING. A water closet designed for adults who need assistance and configured to allow space to enable a care giver to assist.

Revise as follows:

306.7.11.1 Accessible dwelling or sleeping units. Where Group I-1, I-2, I-3, R-1, R-2 or R-4 dwelling or sleeping units are being altered or added within an *existing building*, the requirements of Section 1108 of the *International Building Code* for Accessible units apply only to the quantity of dwelling or sleeping units being altered or added.

Exception: Where permitted for Group I-1 and I-2 dwelling units and sleeping units in accordance with Sections 1108.5.1.1, 1108.5.1.2, 1108.5.2.1 and 1108.5.4 of the International Building Code, toilet and bathing rooms within Accessible units shall be permitted to comply with the assisted toileting and assisted bathing requirements.

Reason: The IBC allows for assisted toileting and bathing for new construction as an option for a percentage of the Accessible units in Assisted living, Nursing homes and Rehabilitation facilities. The percentage varies depending on the need. The purpose of the assisted toileting and bathing is to address the special needs for person who need assistance in toileting and bathing due to strength or stability issues. The technical information was removed from the IBC in E122-24 because the 2025 edition of the ICC A117.1 will now include those provisions. Putting this exception here just allows for facilities that are being renovated to use the same options permitted for them in new construction. This option was developed based on a study done by the Rothschild Foundation, and has already been proven to improve accessibility and safety for both residents and care givers.

This is a joint proposal with the BCAC and Healthcare committees.

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

The Committee on Healthcare (CHC) was established by the ICC Board of Directors in 2011 to pursue opportunities to study and develop effective and efficient provisions for Hospital, Nursing Homes, Assisted Living and Ambulatory Care Facilities. This committee was formed in cooperation with the American Society for Healthcare Engineering (ASHE). In July of 2017, the ICC Board made CHC a standing committee. In 2023 and 2024 the CHC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the CHC website at CHC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This exception is allowing an option that is already permitted for new construction. Since this is an option, it would not increase the cost of construction.

Staff Analysis: This proposal is simply duplicating a definition added in the 2024 cycle to the IBC. The definition cannot be revised in this proposal as it is likely to be scoped to another committee and should be identical

EB25-25

IEBC: SECTION 202 (New), SECTION 306, 306.7.12, 306.7.13, 306.7.14, 306.7.15, 306.7.18.4, 306.7.18.5

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Add new definition as follows:

FAMILY OR COMPANION BATHING ROOM. A room for toileting and bathing that provides privacy and designed for a family with children and for people with disabilities with a companion or assistant.
FAMILY OR COMPANION TOILET ROOM. A toilet room that provides privacy and designed for a family with children and for people with disabilities with a companion or assistant.

SECTION 306
ACCESSIBILITY FOR EXISTING BUILDINGS

Revise as follows:

306.7.12 Toilet rooms. Where it is *technically infeasible* to alter existing toilet rooms to be accessible, one accessible single-user toilet room or one accessible family or ~~assisted-use~~ companion toilet room constructed in accordance with Section 1110.2.1 of the *International Building Code* is permitted. This toilet room shall be located on the same floor and in the same area as the existing toilet rooms. At the inaccessible toilet rooms, directional signs indicating the location of the nearest such toilet room shall be provided. These directional signs shall include the International Symbol of Accessibility, and sign characters shall meet the visual character requirements in accordance with ICC A117.1.

306.7.13 Bathing rooms. Where it is *technically infeasible* to alter existing bathing rooms to be accessible, one accessible single-user bathing room or one accessible family or ~~assisted-use~~ companion bathing room constructed in accordance with Section 1110.2.1 of the *International Building Code* is permitted. This accessible bathing room shall be located on the same floor and in the same area as the existing bathing rooms. At the inaccessible bathing rooms, directional signs indicating the location of the nearest such bathing room shall be provided. These directional signs shall include the International Symbol of Accessibility, and sign characters shall meet the visual character requirements in accordance with ICC A117.1.

306.7.14 Additional toilet and bathing facilities. In assembly and mercantile occupancies, where additional toilet fixtures are added, not fewer than one accessible family or ~~assisted-use~~ companion toilet room shall be provided where required by Section 1110.2.1 of the *International Building Code*. In recreational *facilities*, where additional bathing rooms are being added, not fewer than one family or assisted-use bathing room shall be provided where required by Section 1110.2.1 of the *International Building Code*.

306.7.15 Adult changing stations. Where additional toilet facilities are being added, in occupancies where adult changing stations are required by Section 1110.4.1 of the *International Building Code*, not fewer than one accessible family or ~~assisted-use~~ companion toilet room with an adult changing station shall be provided in accordance with Section 1110.4 of the *International Building Code*. The adult changing station shall be permitted to be located in a family or assisted-use toilet room or bathing room required by Section 306.7.12, 306.7.13 or 306.7.14.

306.7.18.4 Toilet facilities. Where toilet rooms are provided, not fewer than one accessible single-user toilet room or one accessible family or ~~assisted-use~~ companion toilet room complying with Section 1110.2.1 of the *International Building Code* shall be provided.

306.7.18.5 Bathing facilities. Where bathing rooms are provided, not fewer than one accessible single-user bathing room or one accessible family or ~~assisted-use~~ companion bathing rooms complying with Section 1110.2.1 of the *International Building Code* shall be provided.

Reason: The IBC and IPC Development Committees approved E126-22 Part 1 and 2 with Group A. The intent of this proposal is to coordinate with those changes.

Both the family or assisted use bathrooms and assisted toileting and bathing options are included in the IBC. This proposal not intended to change any technical requirements. However, the terminology is so close, it is causing confusion – especially when it comes to the options for the water closet and showers permitted in the family or assisted use toilet or bathroom. Do I have to use the water closet with two swing up grab bars or only a roll-in shower? That is not the intent. This change in terminology will clarify the options.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is a clarification in terminology for different options permitted in IBC. There are no changes to construction requirements.

Staff Analysis: This proposal is simply duplicating a definition added in the 2024 cycle to the IBC. The definition cannot be revised in this proposal as it is likely to be scoped to another committee and should be identical.

EB25-25

EB26-25

IEBC: 307.1, 308.1

Proponents: Jeffrey Shapiro, P.E., FSFPE, LTFR, representing Lake Travis Fire Rescue (jeff.shapiro@intlcodeconsultants.com)

2024 International Existing Building Code

Revise as follows:

307.1 Smoke alarms. Where an *alteration*, *addition*, *change of occupancy* or relocation of a building is made to an *existing building* or structure of a Group R and I-1 occupancy, the *existing building* shall be provided with smoke alarms in accordance with Section 907 of the *International Fire Code* or Section R310 of the *International Residential Code*.

~~**Exception:** Work classified as Level 1 *Alterations* in accordance with Chapter 7.~~

Where a *repair* is made to an existing building or structure of a Group R and I-1 occupancy, the existing building shall be provided with smoke alarms in accordance with Section 1103.8 of the *International Fire Code*.

308.1 Carbon monoxide detection. Where ~~an~~ a repair, *addition*, *alteration*, *change of occupancy* or relocation of a building is made to an *existing building* , the *existing building* shall be provided with carbon monoxide detection in accordance with Section 915 of the *International Fire Code* or Section R311 of the *International Residential Code*.

~~**Exceptions:**~~

1. ~~Work involving the exterior surfaces of buildings, such as the replacement of roofing or siding, the addition or replacement of windows or doors, or the addition of porches or decks.~~
2. ~~Installation, *alteration* or *repairs* of plumbing or mechanical systems, other than fuel-burning appliances.~~
3. ~~Work classified as Level 1 *Alterations* in accordance with Chapter 7.~~
4. ~~In Group I-2 occupancies, carbon monoxide detection is not required in each sleeping unit where carbon monoxide detection, which transmits an alarm signal to an *approved* location, is provided in each space containing a carbon monoxide source.~~

Reason: This proposal fixes two issues in the IEBC related to smoke and carbon monoxide detection regulations. With respect to smoke alarms, the current exception in Section 307.1 suggests that smoke alarms need not be provided where Level 1 alterations are performed. That is not correct because Chapter 11 of the IFC requires ALL Group I-1 and Group R occupancies to be provided with smoke detection. If alternations, additions, changes of occupancy or relocations are being done, then the IEBC needs to point to smoke alarm provisions for new construction in the IFC and/or IRC. If repairs are being performed, the IEBC needs to point to the existing building provisions in IFC Chapter 11, since all Group I-1 and Group R occupancies, regardless of whether they are being repaired or otherwise touched, are required by the IFC to have smoke detection. The proposed second sentence is limited to repairs only because that is the other topic covered by the IEBC scope. You'd only be in the IEBC in the first place if you're doing repairs, alterations, etc.

With respect to CO detection, Proposal F148-24 (Approved by the IFC Technical Committee without comment and now on the consent agenda) was a complete rewrite of the CO detection requirements and clarified a number of shortcomings in the 2024 IFC/IBC text. All existing occupancies, regardless of whether they are being repaired, altered, added to or subject to a change of occupancy now require CO detection in accordance with IFC Section 915 if there is a CO source (newly defined if F148-24). Current Exceptions 1-3 in the IEBC are no longer valid since there are no similar exceptions to the IFC and IBC provisions that will be in the 2027 code. Unlike many other IEBC provisions, work being done/not done is not a trigger for CO detection. With respect to the current Exception 4, this isn't needed either and doesn't correlate with the new IFC requirements applicable to existing I-2 Occupancies. However, Section 915.4.1, Exception 2 of Proposal F148-24 provides a path to a similar outcome for sleeping areas in new and existing Group I-2 Occupancies that require CO detection.

It should be noted that changes made by this proposal are exclusively for correlation with the in the 2027 IFC that are applicable to all existing buildings and occupancies, even if no work under the IEBC scope is being performed. The IEBC is scoped with the authority to lessen requirements associated with repair, alteration, addition, relocation or change of use that would otherwise apply. It cannot lessen IFC requirements that are applicable to all existing buildings or occupancies, regardless of whether such work is performed.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

The changes simply correlate with overarching IFC provisions that have already been approved for the 2027 codes consent agenda.

EB26-25

EB27-25 Part I

IEBC: SECTION 202, SECTION 309, 309.2, 309.2.1

Proponents: Eric Banks, e.w.banks consulting llc, representing North American Modern Building Alliance (eric.banks@ewbanksconsulting.com); Marcelo Hirschler, representing GBH International (mmh@gbhint.com)

THIS IS A 2 PART CODE CHANGE. PART I WILL BE HEARD BY THE EXISTING BUILDING CODE COMMITTEE. PART II WILL BE HEARD BY THE ADMIN CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THESE COMMITTEES.

2024 International Existing Building Code

Delete without substitution:

~~**[BF] EXTERIOR WALL COVERING.** A material or assembly of materials applied on the exterior side of exterior walls for the purpose of providing a weather-resisting barrier, insulation or for aesthetics, including but not limited to, veneers, siding, exterior insulation and finish systems, architectural trim and embellishments, such as cornices, soffits, facias, gutters and leaders.~~
~~**[BF] EXTERIOR WALL ENVELOPE.** A system or assembly of exterior wall components, including exterior wall finish materials, that provides protection of the building structural members, including framing and sheathing materials, and conditioned interior space from the detrimental effects of the exterior environment.~~

Revise as follows:

SECTION 309
ADDITIONS AND REPLACEMENTS OF EXTERIOR WALL COVERINGS AND ~~EXTERIOR WALL ENVELOPES~~EXTERIOR WALL ASSEMBLIES

309.2 Additions and replacements. Where an ~~*exterior wall covering*~~ exterior wall covering or ~~*exterior wall envelope*~~ exterior wall assembly is added or replaced, the materials and methods used shall comply with the requirements for new construction in Chapter 14 and Chapter 26 of the *International Building Code* if the added or replaced ~~*exterior wall covering*~~ exterior wall covering or ~~*exterior wall envelope*~~ exterior wall assembly involves two or more contiguous stories and comprises more than 15 percent of the total wall area on any side of the building.

309.2.1 Automatic sprinkler systems. Combustible ~~*exterior wall covering*~~ exterior wall covering or combustible ~~exterior wall envelopes~~ exterior wall assemblies shall not be added to an existing high-rise building that is not protected throughout with an automatic sprinkler system.

Exceptions:

1. Where such material is located on a single story and is less than 15 percent of the wall area on any side of the building.
2. Water-resistive barriers installed in accordance with Section 1402.6 of the *International Building Code*.

EB27-25 Part II

IEBC: [A] 106.2.4

Proponents: Eric Banks, e.w.banks consulting llc, representing North American Modern Building Alliance (eric.banks@ewbanksconsulting.com); Marcelo Hirschler, representing GBH International (mmh@gbhint.com)

2024 International Existing Building Code

Revise as follows:

[A] 106.2.4 ~~Exterior wall envelope~~ Exterior wall assembly. Construction documents for work affecting the ~~*exterior wall envelope*~~ exterior wall assembly shall describe the ~~*exterior wall envelope*~~exterior wall assembly in sufficient detail to determine compliance with this code. The construction documents shall provide details of the ~~*exterior wall envelope*~~ exterior wall assembly as required, including windows, doors, flashing, intersections with dissimilar materials, corners, end details, control joints, intersections at roof, eaves or parapets, means of drainage, water-resistive barriers and details around openings.

The construction documents shall include manufacturer's installation instructions that provide supporting documentation that the proposed penetration and opening details described in the construction documents maintain the wind and weather resistance of the ~~*exterior wall envelope*~~ exterior wall assembly. The supporting documentation shall fully describe the exterior wall system that was tested, where applicable, as well as the test procedure used.

Reason:

Proponent: Eric Banks, e.w.banks consulting llc, representing North American Modern Building Alliance (eric.banks@ewbanksconsulting.com):

This proposal harmonizes the terminology regarding exterior wall coverings and exterior wall assemblies of the IEBC with the IBC.

In the 2018 I-Codes, defined terms for *exterior wall covering* and *exterior wall envelope* were, intentionally, identical in the IBC and IEBC. Unfortunately, revisions to the IBC terms during the intervening code cycles have neglected to include correlating revisions to the IEBC terms. There is no legitimate need for any inconsistency or variation in the terms between the IBC and IEBC. IEBC Sections 106.2.4, 309, 309.2 and 309.2.1. are the only sections that reference the exterior wall covering and exterior wall envelope defined terms.

The resulting inconsistency in terminology and definitions between the IEBC and the IBC becomes problematic where provisions of Section 309 require *exterior wall coverings* and *exterior wall envelopes* to comply with requirements of IBC Chapters 14 and 26, and where Section 309.2 places other limitations on changes to certain existing exterior wall assemblies. For one, there simply is no exterior wall envelope in the IBC anymore.

The *exterior wall covering* and *exterior wall envelope* term definitions are scoped to the IBC – Fire Safety Code Development Committee (Group A). There is no opportunity to revise the definitions in Group B to bring them back into harmony with the IBC terms. These two IBC terms are often the subject of proposed revisions (include 2024 Group A proposals) and future proposals for further revision are reasonably anticipated. Removing the defined terms for exterior wall covering and exterior wall envelope from the IEBC will, based on IEBC Section 201.3 (Terms defined in other codes), ensure that (1) the IEBC will default to the IBC defined terms, and (2) any revisions to the IBC definitions for e*xterior wall covering* and *exterior wall assembly* will automatically flow into the IEBC without the need for specific code change proposal(s).The North American Modern Building Alliance (NAMBA) is focused on addressing fire safety through the development and enforcement of building codes. Members of NAMBA are: ACC Center for the Polyurethanes Industry, ACC North American Flame Retardant Alliance, Atlas Roofing Corp., BASF Corporation, Covestro, DuPont, EIFS Industry Members Association, EPS Industry Alliance, GAF, Huntsman, Kingspan Insulation LLC, Metal Construction Association, Owens Corning, Polyisocyanurate Insulation Manufacturers Association, Rmax - A Business Unit of the Sika Corporation.

Co-proponent: Marcelo Hirschler, representing GBH International (mmh@gbint.com):

This is a purely editorial proposal to ensure that the IEBC uses the same terms and definitions as the IBC. Nothing is being changed in any section other than the terminology.

In the 2024 IBC, the code no longer uses the term "exterior wall envelope" and replaced it with the term "exterior wall assembly" throughout.

The 2024 IEBC states in chapter 2 on definitions that the terms "exterior wall envelope" and "exterior wall covering" are based on the IBC fire safety decisions, but they were not updated formally in the IEBC. However earlier action, as part of the Errata, updated the IEBC definitions by replacing "exterior wall envelope" with "exterior wall assembly" and revising "exterior wall covering" to make them both consistent with the IBC ones.

This proposal simply provides that consistency between the IBC and IEBC and replaces the term "exterior wall envelope" everywhere else in the IEBC by the correct term "exterior wall assembly".

2024 International Building Code

EXTERIOR WALL ASSEMBLY. *A system including the exterior wall covering, framing, and components such as weather-resistive barriers and insulating materials. This system provides protection of the building structural members and conditioned interior space from the detrimental effects of the exterior environment.*

EXTERIOR WALL COVERING. *A material or assembly of materials applied on the exterior side of exterior walls for the purpose of providing a weather-resisting barrier, insulation or for aesthetics, including but not limited to, veneers, siding, exterior insulation and finish systems, rainscreen systems, architectural trim and embellishments such as cornices, soffits, fascias, gutters and leaders.*

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal does not add, remove, or alter any requirement of the code, therefore, it presents no inherent increase or decrease in the cost of construction. The proposal seeks to simply coordinate terminology and definitions regarding exterior wall coverings and exterior wall assemblies of the IEBC with the those in the IBC.

EB27-25 Part II

EB29-25

IEBC: SECTION 202 (New), 309.1, 309.2, 309.2.1

Proponents: Marcelo Hirschler, representing GBH International (mmh@gbhint.com)

2024 International Existing Building Code

Add new definition as follows:

HIGH-RISE BUILDING. A *building* with an occupied floor or occupied roof located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access.

309.1 General. The provisions of Section 309 apply to all *alterations*, *repairs*, *additions*, relocations of structures and *changes of occupancy* regardless of compliance method.

309.2 Additions and replacements. Where an *exterior wall covering* or *exterior wall envelope* is added or replaced, the materials and methods used shall comply with the requirements for new construction in Chapter 14 and Chapter 26 of the *International Building Code* if the added or replaced *exterior wall covering* or *exterior wall envelope* involves two or more contiguous stories and comprises more than 15 percent of the total wall area on any side of the building.

Revise as follows:

309.2.1 Automatic sprinkler systems. ~~Combustible *exterior wall covering* or combustible exterior wall envelopes~~ *Exterior wall coverings* or *exterior wall assemblies* shall not be added to an existing high-rise building that is not protected throughout with an automatic sprinkler system unless the *exterior wall assembly* complies with the requirements of Chapters 14 and 26 of the International Building Code.

~~Exceptions~~ Exception: Where the added exterior wall assembly is located on a single story and is less than 15 percent of the wall area on any side of the building.

1. ~~Where such material is located on a single story and is less than 15 percent of the wall area on any side of the building.~~
2. ~~Water-resistive barriers installed in accordance with Section 1402.6 of the *International Building Code*.~~

Reason: Exterior wall assemblies that have met the requirements of NFPA 285 (as required by chapters 14 and 26 of the IBC) have been shown to provide a high level of fire safety. In fact there does not appear to have been a fatal fire starting in an exterior wall assembly that has been tested to, and complied with, NFPA 285. Therefore there is no need to demand that the replacement or added exterior wall assembly be composed exclusively of noncombustible materials, just like new construction does not require exterior wall assemblies to be constructed exclusively of noncombustible materials. The IBC (and IEBC) require that exterior wall assemblies comply with the appropriate (and severe) NFPA 285 test. Demanding the exclusive use of noncombustible materials will thwart innovation and mean that there are fewer (safe) options for repairs or alterations of existing buildings.

The IFC already requires that all high-rise buildings be sprinklered and testing to NFPA 285, as required in IBC Chapters 14 an 26, applies specifically to buildings over 40 feet in height, which means that it applies to all high-rise buildings. This code proposal retains the requirement that the high-rise building must be sprinklered. In order to clarify the concept of what is a high-rise building in the IEBC, this proposal adds a definition of high-rise building, which is identical to that in the IBC.

The code proposal retains the first exception presently in the code, while slightly rewording it.

The code proposal deletes the second exception, for two reasons.

First: the charging section already will require complying with the entirety of chapter 14, including 1402.6.

Second: It is impossible for water-resistive barriers to be "installed in accordance with Section 1402.6 of the IBC" because that section does not provide any "installation" information on water-resistive barriers. Section 1402.6 of the IBC simply describes (in exceptions 2.1 and 2.2) the fire properties (in terms of heat release, effective heat of combustion, flame spread, and smoke development) that water-resistive barriers need to comply with in order for testing the exterior wall assembly to NFPA 285 not be required, which applies only if

such a water-resistive barrier is the only combustible component in the exterior wall.

Note that the IBC uses the term "exterior wall assembly" and not the term "exterior wall envelope", used in earlier editions. A separate proposal recommends making that correlative change throughout the IEBC.

The IBC section 1402.6 reads as follows:
1402.6 Water-resistive barriers. Exterior walls on buildings of Type I, II, III or IV construction that are greater than 40 feet (12 192 mm) in height above grade plane and contain a combustible water-resistive barrier shall be tested in accordance with and comply with the acceptance criteria of NFPA 285.Combustibility shall be determined in accordance with Section 703.3. For the purposes of this section, fenestration products, flashing of fenestration products and water-resistive-barrier flashing and accessories at other locations, including through wall flashings, shall not be considered part of the water-resistive barrier.
Exceptions:
1. Exterior walls in which the water-resistive barrier is the only combustible component and the exterior wall has an exterior wall covering of brick, concrete, stone, terra cotta, stucco or steel with minimum thicknesses in accordance with Table 1404.2.
2. Exterior walls in which the water-resistive barrier is the only combustible component and the water-resistive barrier complies with the following:
2.1 A peak heat release rate of less than 150 kW/m2, a total heat release of less than 20 MJ/m2 and an effective heat of combustion of less than 18 MJ/kg when tested on specimens at the thickness intended for use, in accordance with ASTM E1354, in the horizontal orientation and at an incident radiant heat flux of 50 kW/m^2.
2.2 A flame spread index of 25 or less and a smoke-developed index of 450 or less as determined in accordance with ASTM E84 or UL 723, with test specimen preparation and mounting in accordance with ASTM E2404.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

The code proposal will allow added flexibility in the use of exterior wall assemblies, as it does not require that all components be noncombustible. That means that a lager selection of materials will be able to be chosen for the exterior wall assembly. That means that it is likely that less testing to ASTM E136 will be required. On the other hand, it is possible that new testing to NFPA 285 may be required but it is likely that systems will be used that have already been used elsewhere or for which engineering assessments of equivalency are available.

Staff Analysis: This proposal is simply duplicating a definition from the IBC and IFC. The definition cannot be revised in this proposal as it is scoped to another committee.

EB29-25

EB30-25

IEBC: 309.2, 309.2.1

Proponents: Eric Banks, e.w.banks consulting llc, representing North American Modern Building Alliance (eric.banks@ewbanksconsulting.com)

2024 International Existing Building Code

Revise as follows:

309.2 Additions and replacements. Where an *exterior wall covering* or *exterior wall envelope* is added or replaced, the materials and methods used shall comply with the requirements for new construction in Chapter 14 and Chapter 26 of the *International Building Code* if the added or replaced *exterior wall covering* or *exterior wall envelope* involves two or more contiguous stories and comprises more than 15 percent of the total wall area on any side of the building.

309.2.1 Automatic sprinkler systems. Combustible *exterior wall covering* or combustible exterior wall envelopes shall not be added to an existing high-rise building that is not protected throughout with an automatic sprinkler system.

Exceptions:

1. Where such material is located on a single story and is less than 15 percent of the wall area on any side of the building.
2. Water-resistive barriers installed in accordance with Section 1402.6 of the *International Building Code*.
3. *Additions* or *replacements* of combustible *exterior wall coverings* and combustible exterior wall envelopes on the basis of an *approved* engineering analysis.

Reason: This proposal seeks to provide flexibility in complying with Section 309.2.1 while still adhering to its intent and the intent of the code. Adding a third exception allowing the these type of additions and replacements on the basis of a specific engineering analysis of changes performed by a qualified approved source.

Retrofits, updates, and improvements to exterior walls and roofs of existing buildings provide building owners and local jurisdictions with one of the best means to achieve meaningful and long-term reductions in energy consumption and related emissions from buildings. In many cases, these retrofits, updates, and improvements will add insulation, remove and replace existing insulation, reduce air leakage, and increase the water resistance and weather resistance of the exterior walls of buildings. Well-designed building envelopes / enclosures also improve the long-term durability and lifespan of buildings.

Two cycles ago, Section 309 was added to the 2021 IEBC. Section 309 ensured the addition or modification of exterior wall coverings and exterior wall assemblies must comply with the requirements of IBC Chapter 14 on Exterior Walls and Chapter 26 on Plastic. Both IBC chapters include important fire safety provisions such as testing of assemblies in accordance with NFPA 268 for ignition resistance from exterior radiant heat exposure and NFPA 285 for vertical and lateral flame propagation when various combustible materials, conditions, and assemblies are present. Fire safety provisions in IBC Chapters 14 & 26 also address issues of fire-resistance-rated assemblies, when such ratings are required. The addition of Section 309 was reasonable and appropriate.

Last cycle saw the addition of Section 309.2.1 that effectively prohibits adding combustible exterior wall coverings and combustible exterior wall assemblies to certain high-rise buildings. In doing so, this section prevents the ability of building owners to make substantial improvements to exterior wall assemblies of existing non-sprinklered high-rise buildings. A blanket prohibition for all non-sprinklered high-rise buildings allows no opportunity for innovative, performance-based solutions backed up by fire test data and sound evaluation and analysis performed by qualified professionals. This proposal is not intended to 'undo' Section 309.2.1, but to provide flexibility in allowing additions and replacements that are subject to increased oversight and justification.

The North American Modern Building Alliance (NAMBA) is focused on addressing fire safety through the development and enforcement of building codes. Members of NAMBA are: ACC Center for the Polyurethanes Industry, ACC North American Flame Retardant Alliance, Atlas Roofing Corp., BASF Corporation, Covestro, DuPont, EIFS Industry Members Association, EPS Industry Alliance, GAF, Huntsman, Kingspan Insulation LLC, Metal Construction Association, Owens Corning, Polyisocyanurate Insulation Manufacturers Association, Rmax - A Business Unit of the Sika Corporation.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

The proposal provides an additional compliance option for the alteration, repair, and addition to certain existing buildings, therefore, does not inherently present an increase or decrease to the cost of construction

EB30-25

EB31-25

IEBC: SECTION 310 (New), 310.1 (New)

Proponents: Bryan Holland, representing National Electrical Manufacturers Association (NEMA) (bryan.holland@nema.org); Megan Hayes, representing NEMA (megan.hayes@nema.org)

2024 International Existing Building Code

Add new text as follows:

SECTION 310
DATA CENTERS AND COMPUTER ROOMS

310.1 Data centers and computer rooms. Where an alteration, addition, change of occupancy or relocation of a building is made to an existing building or structure or part of a building or structure that contain data centers or computers rooms shall comply with Section 2702.2.20 and Section 429 of the International Building Code.

Reason: Data centers and computers rooms have and are rapidly becoming critical infrastructure requiring reliable power systems with sufficient standby and emergency power, resilient to transient energy from overvoltage and surge currents. This proposal adds essential power reliability by mandating standby power for the equipment and systems installed for existing data centers and computer rooms along with emergency power for life safety and fire responder operations. Additionally, surge protection will be required for all existing services and feeders installed for the normal, standby, and emergency equipment and systems. The combination of standby power, emergency power, and surge protection will ensure existing data centers and computer rooms will remain energized during normal power outages and will not be damaged from transient surges after undergoing alteration, addition, change of occupancy, or relocation.

Cost Impact: Increase

Estimated Immediate Cost Impact:

This proposal will increase the cost of existing data centers and computer rooms undergoing alteration, addition, change of occupancy, or relocation by requiring compliance with the requirements outlined in Sections 429 and 2702.2.20 of the IBC as required for new data centers and computer rooms. The increased costs at time of alteration, addition, change of occupancy, or relocation will be offset operational savings achieved by reduced downtime, increased productivity, and protection against data loss and equipment damage. This return on investment will vary depending on project scale and scope.

For example, a small computer room with a single network terminal may only require the installation of a single surge-protective device and a UPS for standby power backup whereas and existing 50k square foot standalone data center with thousands of network terminals may require extensive electrical infrastructure upgrades to meet the proposed requirements in Sections 429 and 2702.2.20.

Actual costs in dollars could be as low as $500 in the first example above to more than $100k in electrical upgrades in the second example above.

Estimated Immediate Cost Impact Justification (methodology and variables):

Unknown - No Cost Impact Justification Study Performed. NEMA's proposals are developed by a member consensus process where both our bylaws and federal regulations prohibit us from discussing prices, cost, and other financial details of electrical products.
The best we can offer is a statement that we acknowledge the proposed requirements will indeed increase the cost of construction dependent on the scale and scope of the project, but that we also believe these initial costs will be offset by operational savings achieved by reduced downtime, increased productivity, and protection against data loss and equipment damage, as stated in our proposal.

EB32-25

IEBC: SECTION 310 (New), 310.1 (New), 310.1.1 (New), [BS] 503.2, [BS] 701.3, [BS] 1303.1.3

Proponents: Eirene Knott, representing BRR Architecture (eirene.knott@brrarch.com); Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

Add new text as follows:

SECTION 310
FLOOD HAZARD AREAS

310.1 Flood hazard areas. In *flood hazard areas*, *alterations* that constitute *substantial improvement* shall require that the building comply with Section 1612 of the *International Building Code*, or Section R306 of the *International Residential Code*, as applicable.

310.1.1 Compliance with flood hazard provisions. For projects utilizing the Performance Compliance Method with a structurally connected horizontal addition that does not constitute *substantial improvement*, the addition is not required to comply with the flood design requirements for new construction, provided that both of the following apply:

1. The *addition* shall not create or extend any nonconformity of the *existing building* with the flood-resistant construction requirements.
2. The *lowest floor* of the *addition* shall be at or above the lower of the *lowest floor* of the *existing building* or the *lowest floor elevation* required in Section 1612 of the *International Building Code* or Section 306 of the *International Residential Code* as applicable.

Delete without substitution:

~~**[BS] 503.2 Flood hazard areas.** For buildings and structures in *flood hazard areas* established in Section 1612.3 of the *International Building Code*, or Section R306 of the *International Residential Code*, as applicable, any *alteration* that constitutes *substantial improvement* of the *existing structure* shall comply with the flood design requirements for new construction, and all aspects of the *existing structure* shall be brought into compliance with the requirements for new construction for flood design.~~

~~For buildings and structures in *flood hazard areas* established in Section 1612.3 of the *International Building Code*, or Section R306 of the *International Residential Code*, as applicable, any *alterations* that do not constitute *substantial improvement* of the *existing structure* are not required to comply with the flood design requirements for new construction.~~

~~**[BS] 701.3 Flood hazard areas.** In *flood hazard areas*, *alterations* that constitute *substantial improvement* shall require that the building comply with Section 1612 of the *International Building Code*, or Section R306 of the *International Residential Code*, as applicable.~~

~~**[BS] 1303.1.3 Compliance with flood hazard provisions.** In *flood hazard areas*, buildings that are evaluated in accordance with this section shall comply with Section 1612 of the *International Building Code*, or Section R306 of the *International Residential Code*, as applicable, if the work covered by this section constitutes *substantial improvement*. If the work covered by this section is a structurally connected horizontal *addition* that does not constitute *substantial improvement*, the *addition* is not required to comply with the flood design requirements for new construction, provided that both of the following apply.~~

~~1. The *addition* shall not create or extend any nonconformity of the *existing building* with the flood-resistant construction requirements.~~

~~2. The *lowest floor* of the *addition* shall be at or above the lower of the *lowest floor* of the *existing building* or the *lowest floor* elevation required in Section 1612 of the *International Building Code* or Section R306 of the *International Residential Code*, as applicable.~~

Reason: Provisions for flood hazard areas are current located in the prescriptive method under alterations; in the work area method alterations Level 1, and is addressed in the performance compliance method. The intent of this relocation to Chapter 3 is so that this provision only needs to be addressed once. This will reduce duplication and possibly not be coordinated over time.

This proposal is part of a package of code changes to expand and reorganize Chapter 3 to increase understanding of the options available in the IEBC. Please see the proposal for reorganization for a clean version of what Chapter 3 will look like if all the proposals are successful.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).
BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is a relocation of requirements. It is not intended to have any change to construction requirements.

Staff Analysis: CC # EB32-25 and CC # EB64-25 addresses requirements in a different or contradicting manner. The committee is urged to make their intensions clear with their actions on these proposals.

EB32-25

EB33-25

IEBC: SECTION 505, 505.1, 310.1 (New), 505.2, 505.3, 505.3.1, 505.4, 702.4, 702.5, 702.5.1, 702.6, 1011.5.6

Proponents: Eirene Knott, representing BRR Architecture (eirene.knott@brrarch.com); Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

SECTION ~~505~~310
WINDOWS AND EMERGENCY ESCAPE OPENINGS

Delete without substitution:

~~**505.1 Replacement windows.** The installation or replacement of windows shall be as required for new installations.~~

Add new text as follows:

310.1 General. The installation of replacement windows shall be as required for new installation. Windows in alterations and changes of occupancy shall comply with Section 310.2 through 310.4.

Revise as follows:

~~**505.2**~~**310.2 Window fall prevention on replacement windows.** In Group R-2 or R-3 buildings containing dwelling units, and one- and two-family dwellings and townhouses regulated by the *International Residential Code*, window opening control devices or other window fall prevention devices complying with ASTM F2090 shall be installed where an existing window is replaced and where all of the following apply to the replacement window:

1. The window is operable.
2. One of the following applies:
   2.1. The window replacement includes replacement of the sash and frame.
   2.2. The window replacement includes the sash only where the existing frame remains.
3. One of the following applies:
   3.1. In Group R-2 or R-3 buildings containing dwelling units, the bottom of the clear opening of the window opening is at a height less than 36 inches (915 mm) above the finished floor.
   3.2. In one- and two-family dwellings and townhouses regulated by the *International Residential Code*, the bottom of the clear opening of the window opening is at a height less than 24 inches (610 mm) above the finished floor.
4. The window will permit openings that will allow passage of a 4-inch-diameter (102 mm) sphere when the window is in its largest opened position.
5. The vertical distance from the bottom of the clear opening of the window opening to the finished grade or other surface below, on the exterior of the building, is greater than 72 inches (1829 mm).

Exception: Operable windows where the bottom of the clear opening of the window opening is located more than 75 feet (22 860 mm) above the finished grade or other surface below, on the exterior of the room, space or building, and that are provided with window fall prevention devices that comply with ASTM F2006.

~~**505.3**~~**310.3 Replacement window emergency escape and rescue openings.** ~~Where windows are required to provide *emergency*~~

~~*escape and rescue openings* in Group R-2 and R-3 occupancies and one- and two-family dwellings and townhouses regulated by the *International Residential Code*, replacement windows shall be exempt from the requirements of Section 1031.3 of the *International Building Code* and Section 319.2 of the *International Residential Code*, provided that the replacement window meets the following conditions:~~

1. ~~The replacement window is the manufacturer's largest standard size window that will fit within the existing frame or existing rough opening. The replacement window shall be permitted to be of the same operating style as the existing window or a style that provides for an equal or greater window opening area than the existing window.~~
2. ~~Where the replacement of the window is part of a *change of occupancy*, it shall comply with Section 1011.5.6.~~

Where operable windows are required to serve as *emergency escape and rescue openings* in accordance with Section 1031 of the *International Building Code* or in accordance with Section R319 of the *International Residential Code*, replacement windows shall be exempt from the requirements of Section 1031.3 of the *International Building Code* and Section 319.2 of the *International Residential Code*, provided that the replacement window is the manufacturer's largest standard size window that will fit within the existing frame or existing rough opening. The replacement window shall be permitted to be of the same operating style as the existing window or a style that provides for an equal or greater window opening area than the existing window.

~~**505.3.1**~~**310.3.1 Control devices.** Window opening control devices or fall prevention devices complying with ASTM F2090 shall be permitted for use on windows required to provide *emergency escape and rescue openings*. After operation to release the control device allowing the window to fully open, the control device shall not reduce the net clear opening area of the window unit. *Emergency escape and rescue openings* shall be operational from the inside of the room without the use of keys or tools.

~~**505.4**~~**310.4 Bars, grilles, covers or screens.** Bars, grilles, covers, screens or similar devices are permitted to be placed over *emergency escape and rescue openings*, bulkhead enclosure or window wells that serve such openings, provided all of the following conditions are met:

1. The minimum net clear opening size complies with the code that was in effect at the time of construction.
2. Such devices shall be releasable or removable from the inside without the use of a key, tool or force greater than that which is required for normal operation of the escape and rescue opening.
3. Where such devices are installed, they shall not reduce the net clear opening of the *emergency escape and rescue openings*.
4. Smoke alarms shall be installed in accordance with Section 907.2.11 of the *I nternational Building Code*.

Delete without substitution:

~~**702.4 Window fall prevention** . In Group R-2 or R-3 buildings containing dwelling units and one- and two-family dwellings and townhouses regulated by the *International Residential Code*, window opening control devices or other window fall prevention devices complying with ASTM F2090 shall be installed where an existing window is replaced and where all of the following apply to the replacement window:~~

1. ~~The window is operable.~~
2. ~~One of the following applies:~~
   2.1. ~~The window replacement includes replacement of the sash and frame.~~
   2.2. ~~The window replacement includes the sash only where the existing frame remains.~~

3. One of the following applies:

   3.1. In Group R-2 or R-3 buildings containing dwelling units, the bottom of the clear opening of the window opening is at a height less than 36 inches (915 mm) above the finished floor.

   3.2. In one- and two-family dwellings and townhouses regulated by the *International Residential Code*, the bottom of the clear opening of the window opening is at a height less than 24 inches (610 mm) above the finished floor.

4. The window will permit openings that will allow passage of a 4-inch-diameter (102 mm) sphere when the window is in its largest opened position.

5. The vertical distance from the bottom of the clear opening of the window opening to the finished grade or other surface below, on the exterior of the building, is greater than 72 inches (1829 mm).

Exception:

Operable windows where the bottom of the clear opening of the window opening is located more than 75 feet (22 860 mm) above the finished grade or other surface below, on the exterior of the room, space or building, and that are provided with window fall prevention devices that comply with ASTM F2006.

702.5 Replacement window for emergency escape and rescue openings. Where windows are required to provide *emergency escape and rescue openings* in Group R-2 and R-3 occupancies and one- and two-family dwellings and townhouses regulated by the *International Residential Code*, replacement windows shall be exempt from the requirements of Section 1031.3 of the *International Building Code* and Section R310.2 of the *International Residential Code*, provided that the replacement window meets the following conditions:

1. The replacement window is the manufacturer's largest standard size window that will fit within the existing frame or existing rough opening. The replacement window shall be permitted to be of the same operating style as the existing window or a style that provides for an equal or greater window opening area than the existing window.

2. Where the replacement window is part of a *change of occupancy* it shall comply with Section 1011.5.6.

702.5.1 Control devices. Window opening control devices or fall prevention devices complying with ASTM F2090 shall be permitted for use on windows required to provide *emergency escape and rescue openings.* After operation to release the control device allowing the window to fully open, the control device shall not reduce the net clear opening area of the window unit. *Emergency escape and rescue openings* shall be operational from the inside of the room without the use of keys or tools.

702.6 Bars, grilles, covers or screens. Bars, grilles, covers, screens or similar devices are permitted to be placed over *emergency escape and rescue openings*, bulkhead enclosure or window wells that serve such openings, provided all of the following conditions are met:

1. The minimum net clear opening size complies with the code that was in effect at the time of construction.

2. Such devices shall be releasable or removable from the inside without the use of a key, tool or force greater than that which is required for normal operation of the escape and rescue opening.

3. Where such devices are installed, they shall not reduce the net clear opening of the *emergency escape and rescue openings.*

4. Smoke alarms shall be installed in accordance with Section 907.2.11 of the *International Building Code.*

1011.5.6 Existing emergency escape and rescue openings. Where a *change of occupancy* would require an *emergency escape and*

~~*rescue opening* in accordance with Section 1031 of the *International Building Code*, operable windows serving as the *emergency escape and rescue opening* shall comply with the following:~~

1. ~~An existing operable window shall provide a minimum net clear opening of 4 square feet (0.38 m^2) with a minimum net clear opening height of 22 inches (559 mm) and a minimum net clear opening width of 20 inches (508 mm).~~
2. ~~A replacement window where such window complies with both of the following:~~
   - 2.1. ~~The replacement window meets the size requirements in Item 1.~~
   - 2.2. ~~The replacement window is the manufacturer's largest standard size window that will fit within the existing frame or existing rough opening. The replacement window shall be permitted to be of the same operating style as the existing window or a style that provides for an equal or greater window opening area than the existing window.~~

Reason: Provisions for window fall prevention devices and emergency escape and rescue openings are current located in the prescriptive method in it's own section, but it deals with replacement windows, so that would be applicable in alterations and change of occupancy; and in the work area method under alterations Level 1 and change or occupancy. The intent of this relocation to Chapter 3 is so that this provision only needs to be addressed once. This will reduce duplication and possibly not be coordinated over time.

This proposal is part of a package of code changes to expand and reorganize Chapter 3 to increase understanding of the options available in the IEBC. Please see the proposal for reorganization for a clean version of what Chapter 3 will look like if all the proposals are successful.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).
BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is a relocation of requirements. It is not intended to have any change to construction requirements.

EB33-25

EB34-25

IEBC: SECTION 310 (New), 310.1 (New), SECTION 708, 708.1, SECTION 809, 809.1, SECTION 907, 907.1, SECTION 1104, 1104.1

Proponents: Eirene Knott, representing BRR Architecture (eirene.knott@brrarch.com); Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Add new text as follows:

SECTION 310
ENERGY CONSERVATION

310.1 Minimum requirements. *Alterations* or additions to *existing buildings* or structures are permitted without requiring the entire building or structure to comply with the energy requirements of the *International Energy Conservation Code or International Residential Code.* The *alterations* and additions shall conform to the energy requirements of *International Energy Conservation Code or International Residential Code.*

Delete without substitution:

~~SECTION 708~~
~~ENERGY CONSERVATION~~

~~**708.1 Minimum requirements.** Level 1 *alterations* to *existing buildings* or structures do not require the entire building or structure to comply with the energy requirements of the *International Energy Conservation Code* or *International Residential Code*. The *alterations* shall conform to the energy requirements of the *International Energy Conservation Code* or *International Residential Code* as they relate to new construction only.~~

~~SECTION 809~~
~~ENERGY CONSERVATION~~

~~**809.1 Minimum requirements.** Level 2 *alterations* to *existing buildings* or structures are permitted without requiring the entire building or structure to comply with the energy requirements of the *International Energy Conservation Code* or *International Residential Code*. The *alterations* shall conform to the energy requirements of the *International Energy Conservation Code* or *International Residential Code* as they relate to new construction only.~~

~~SECTION 907~~
~~ENERGY CONSERVATION~~

~~**907.1 Minimum requirements.** Level 3 *alterations* to *existing buildings* or structures are permitted without requiring the entire building or structure to comply with the energy requirements of the *International Energy Conservation Code* or *International Residential Code*. The *alterations* shall conform to the energy requirements of the *International Energy Conservation Code* or *International Residential Code* as they relate to new construction only.~~

~~SECTION 1104~~
~~ENERGY CONSERVATION~~

~~**1104.1 Minimum requirements.** *Additions* to *existing buildings* shall conform to the energy requirements of the *International Energy*~~

~~*Conservation Code* or *International Residential Code* as they relate to new construction.~~

Reason: Provisions for energy conservation are current located in the the work area method under additions, alterations Level 1, 2 and 3. The IECC contains provisions for alterations to existing buildings, so while this is currently not in the Prescriptive method, this makes sense to be applicable to all options.

The intent of this relocation to Chapter 3 is so that this provision only needs to be addressed once. This will reduce duplication and possibly not be coordinated over time.

This proposal is part of a package of code changes to expand and reoganize Chapter 3 to increase understanding of the options available in the IEBC. Please see the proposal for reorganization for a clean version of what Chapter 3 will look like if all the proposals are successful.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).
BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is a relocation of requirements. It is not intended to have any change to construction requirements.

EB34-25

EB35-25

IEBC: SECTION 310 (New), 310.1 (New), 502.6, 503.18, 506.6, 903.4, 1011.4, 1101.6

Proponents: Eirene Knott, representing BRR Architecture (eirene.knott@brrarch.com); Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Add new text as follows:

SECTION 310
ENHANCED CLASSROOM ACOUSTICS

310.1 Enhanced classroom acoustics. In Group E occupancies, classrooms with a volume of 20,000 cubic feet or less, that are located in additions, or in alterations where the area of work exceeds 50 percent of the building area, shall be provided with enhanced classroom acoustics. Enhanced classroom acoustics shall comply with the reverberation time in Section 808 of ICC A117.1.

Delete without substitution:

~~**502.6 Enhanced classroom acoustics.** In Group E occupancies, enhanced classroom acoustics shall be provided in all classrooms in the *addition* with a volume of 20,000 cubic feet (565 m^3) or less. Enhanced classroom acoustics shall comply with the reverberation time in Section 808 of ICC A117.1.~~

~~**503.18 Enhanced classroom acoustics.** In Group E occupancies, where the *work area* exceeds 50 percent of the building area, enhanced classroom acoustics shall be provided in all classrooms with a volume of 20,000 cubic feet (565 m^3) or less. Enhanced classroom acoustics shall comply with the reverberation time in Section 808 of ICC A117.1.~~

~~**506.6 Enhanced classroom acoustics.** In Group E occupancies, where the *work area* exceeds 50 percent of the building area, enhanced classroom acoustics shall be provided in all classrooms with a volume of 20,000 cubic feet (565 m^3) or less. Enhanced classroom acoustics shall comply with the reverberation time in Section 808 of ICC A117.1.~~

~~**903.4 Enhanced classroom acoustics.** In Group E occupancies, where the *work area* is a Level 3 *alteration*, enhanced classroom acoustics shall be provided in all classrooms with a volume of 20,000 cubic feet (565 m^3) or less. Enhanced classroom acoustics shall comply with the reverberation time in Section 808 of ICC A117.1.~~

~~**1011.4 Enhanced classroom acoustics.** In Group E occupancies, where the *work area* is a Level 3 *alteration*, enhanced classroom acoustics shall be provided in all classrooms with a volume of 20,000 cubic feet (565 m^3) or less. Enhanced classroom acoustics shall comply with the reverberation time in Section 808 of ICC A117.1.~~

~~**1101.6 Enhanced classroom acoustics.** In Group E occupancies, enhanced classroom acoustics shall be provided in all classrooms in the *addition* with a volume of 20,000 cubic feet (565 m^3) or less. Enhanced classroom acoustics shall comply with the reverberation time in Section 808 of ICC A117.1.~~

Reason: Provisions for classroom acoustics are currently located in the prescriptive method under additions, alterations (exceeding 50%), and change of occupancy (with alterations exceeding 50%); and in the work area method under additions, alterations Level 3, and change of occupancy (with alterations Level 3). The intent of this relocation to Chapter 3 is so that this provision only needs to be addressed once. This will reduce duplication and possibly not be coordinated over time.

This proposal is part of a package of code changes to expand and reorganize Chapter 3 to increase understanding of the options available in the IEBC. Please see proposal EB7-25 for reorganization and a clean version of what Chapter 3 will look like if all the proposals are successful.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).
BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is a relocation of requirements. It is not intended to have any change to construction requirements.

EB35-25

EB36-25

IEBC: SECTION 310 (New), 310.1 (New), CHAPTER 10, SECTION 1009, 1009.1

Proponents: Julius Carreon, City of Bellevue, representing Washington Association of Building Officials Technical Code Development Committee (jcarreon@bellevuewa.gov); Micah Chappell, Seattle Dept. of Construction and Inspections (SDCI), representing Washington Association of Building Officials Technical Code Development Committee (WABO TCD) (micah.chappell@seattle.gov); Sean Angeley, City of Bellingham, representing Washington Associated of Building Officials, Technical Code Development Committee (smangeley@cob.org)

2024 International Existing Building Code

Add new text as follows:

SECTION 310
PLUMBING

310.1 Minimum Fixtures. Where an *alteration* results in increased occupant load of the story by more than 20 percent, plumbing fixtures for the story shall be provided in quantities specified in the International Plumbing Code based on the increased occupant load.

CHAPTER 10
CHANGE OF OCCUPANCY

SECTION 1009
PLUMBING

Revise as follows:

1009.1 Increased demand. Where the occupancy of an *existing building* or part of an *existing building* is changed such that the new occupancy is subject to increased or different plumbing fixture requirements or to increased water supply requirements in accordance with the *International Plumbing Code*, the new occupancy shall comply with the intent of the respective *International Plumbing Code* provisions.

~~**Exception:** Only where the occupant load of the story is increased by more than 20 percent, plumbing fixtures for the story shall be provided in quantities specified in the International Plumbing Code based on the increased occupant load.~~

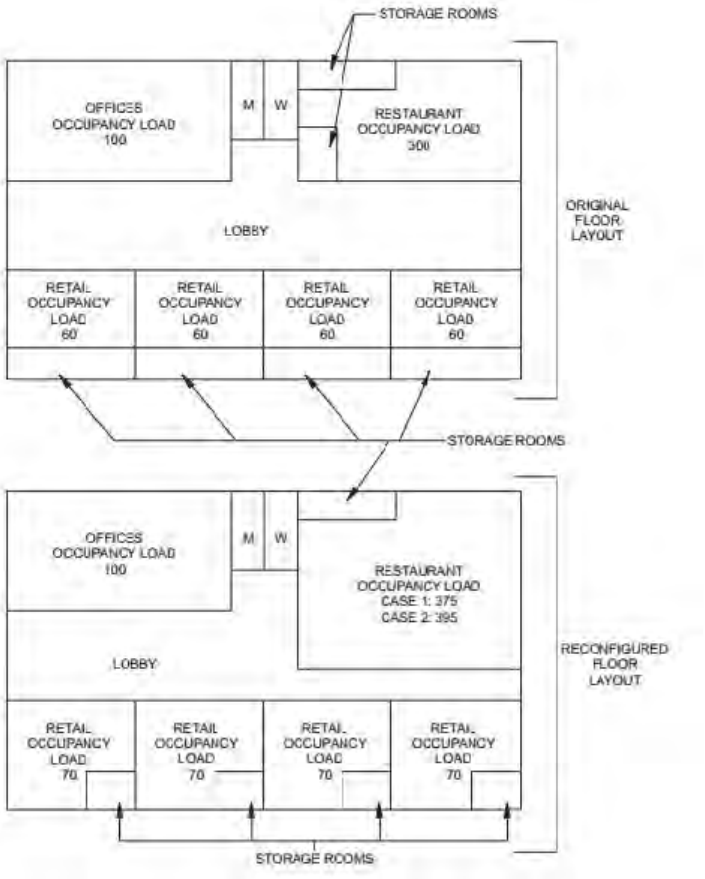
Reason: This code change is to undo the inadvertently substantive change when the plumbing requirements in the alterations section of the code (Section 809 in the 2018 IEBC and prior) were moved to the exception for plumbing fixtures in the change of occupancy section during the 2021 code cycle (See EB92-19): https://www.cdpaccess.com/proposal/5439/8306/preview/.

This provision allows existing plumbing fixtures to remain unchanged as long as renovations result in an occupant load increase of no more than 20% of the current load. During the 2021 code change cycle, proponents of EB92-19 argued that a 20% occupant load increase qualifies as a change of occupancy. They suggested relocating this provision from the Level 2 Alteration section to the Change of Occupancy chapter as an exception.

While we acknowledge that a significant occupant load increase could qualify as a change of occupancy, even within the same group classification (e.g., converting a restaurant to a bar/nightclub within Group A-2), we interpret the 20% allowance differently. We believe it should only apply to reconfigurations where the building's use or occupancy does not change, aligning with the definition of an alteration (See Figure 809.1 as an example). This interpretation reflects that plumbing fixture requirements depend not only on occupant load but also on the building's use or occupancy type (see IBC Table 2902.1). For instance, in a change of occupancy scenario, converting a mercantile space (occupancy load factor = 60 sf/person) to a business use (occupancy load factor = 150 sf/person) could decrease the

occupant load of the space but necessitate different plumbing fixture requirements. Applying the 20% exception in this scenario seems inappropriate because it could result in significantly insufficient plumbing fixtures for the new business use. Hence, this proposal is intended to correct this by removing the exception in Section 1009.1 and relocating it back to the alteration section.

In place of relocating the 20% plumbing allowance back to the alteration level 2 work area section, we believe it should be permitted for any compliance method. Hence, we are proposing to relocate the provision as a new section in Chapter 3.



(Alteration example from 2018 IEBC Commentary Figure 809.1)

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This code proposal is a clarification (or correction) that could decrease construction costs for alteration projects but may increase costs for change-of-occupancy projects.

EB36-25

EB37-25

IEBC: SECTION 504, [BE] 504.1, [BE] 504.1.1, [BE] 504.1.2, 310.1.2.1 (New), [BE] 504.1.3, 310.1.3.1 (New), [BE] 504.1.4, [BE] 504.2, [BE] 504.3, [BE] 504.4, [BE] 504.5, 310.6 (New), 802.2.1, 804.5.1.2, 804.5.1.2.1, 804.5.1.2.2, 804.5.1.2.3, 1305.2.11, 1305.2.11.1

Proponents: Grant Ullrich, Chair, representing ICC Adaptive Reuse Working Group (grant.ullrich@cityofchicago.org); Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

SECTION ~~504~~ 310
FIRE ESCAPES

[BE] ~~504.1~~ 310.1 Where permitted. Fire escapes shall be permitted only as provided for in Sections ~~504.1.1~~ 310.1.1 through ~~504.1.4~~ 310.1.4.

[BE] ~~504.1.1~~ 310.1.1 New buildings. Fire escapes shall not constitute any part of the required means of egress in new buildings.

[BE] ~~504.1.2~~ 310.1.2 Existing fire escapes. Existing fire escapes shall continue to be accepted as a component in the means of egress in *existing buildings* only.

Add new text as follows:

310.1.2.1 Use of existing ladders. In buildings of Group E or I occupancy, rooming houses and childcare centers, use of existing ladders is prohibited.

Revise as follows:

[BE] ~~504.1.3~~ 310.1.3 New fire escapes. New fire escapes for *existing buildings* shall be permitted only where exterior stairways cannot be utilized because of lot lines limiting stairway size or because of sidewalks, alleys or roads at grade level. New fire escapes shall not incorporate ladders or access by windows.

Add new text as follows:

310.1.3.1 Use of windows. Windows shall be permitted to provide access from single dwelling units or sleeping units in Group R and I-1 occupancies or to provide access from spaces having a maximum occupant load of 10 in other occupancy classifications, provided:

1. The window shall have a minimum net clear opening of 5.7 square feet (0.53 m^2) or 5 square feet (0.46 m^2) where located at grade.
2. The minimum net clear opening height shall be 24 inches (610 mm) and net clear opening width shall be 20 inches (508 mm).
3. The bottom of the clear opening shall not be greater than 44 inches (1118 mm) above the floor.

Revise as follows:

[BE] ~~504.1.4~~ 310.1.4 Limitations. Fire escapes ~~shall comply with this section and~~ shall not constitute more than 50 percent of the required number of exits nor more than 50 percent of the required exit capacity.

[BE] ~~504.2~~ 310.2 Location. Where located on the front of the building and where projecting beyond the building line, the lowest landing

shall be not less than 7 feet (2134 mm) or more than 12 feet (3658 mm) above grade, and shall be equipped with a counterbalanced stairway to the street. In alleyways and thoroughfares less than 30 feet (9144 mm) wide, the clearance under the lowest landing shall be not less than 12 feet (3658 mm).

[BE] ~~**504.3**~~ **310.3 Construction.** The fire escape shall be designed to support a live load of 100 pounds per square foot (4788 Pa) and shall be constructed of steel or other *approved noncombustible materials*. Fire escapes constructed of wood not less than nominal 2 inches (51 mm) thick are permitted on buildings of Type V construction. Walkways and railings located over or supported by combustible roofs in buildings of Type III and IV construction are permitted to be of wood not less than nominal 2 inches (51 mm) thick.

[BE] ~~**504.4**~~ **310.4 Dimensions.** Stairways shall be not less than 22 inches (559 mm) wide with risers not more than, and treads not less than, 8 inches (203 mm) and landings at the foot of stairways not less than 40 inches (1016 mm) wide by 36 inches (914 mm) long, located not more than 8 inches (203 mm) below the door.

[BE] ~~**504.5**~~ **310.5 Opening protectives.** Doors and windows within 10 feet (3048 mm) of fire escape stairways shall be protected with $^3/_4$-hour opening protectives.

Exception: Opening protection shall not be required in buildings equipped throughout with an *approved* automatic sprinkler system.

Add new text as follows:

310.6 Access. Occupants shall have unobstructed access to the fire escape without having to pass through a room subject to locking.

Revise as follows:

802.2.1 Existing vertical openings. Existing interior vertical openings connecting two or more floors shall be enclosed with *approved* assemblies having a fire-resistance rating of not less than 1 hour with *approved* opening protectives.

Exceptions:

1. Where vertical opening enclosure is not required by the *International Building Code* or the *International Fire Code*.
2. Interior vertical openings other than stairways may be blocked at the floor and ceiling of the *work area* by installation of not less than 2 inches (51 mm) of solid wood or equivalent construction.
3. The enclosure shall not be required where:
   - 3.1. Connecting the main floor and mezzanines; or
   - 3.2. All of the following conditions are met:
     - 3.2.1. The communicating area has a low-hazard occupancy or has a moderate-hazard occupancy that is protected throughout by an automatic sprinkler system.
     - 3.2.2. The lowest or next-to-the-lowest level is a street floor.
     - 3.2.3. The entire area is open and unobstructed in a manner such that it is reasonable to assume that a fire in any part of the interconnected spaces will be readily obvious to all of the occupants.
     - 3.2.4. Exit capacity is sufficient to provide egress simultaneously for all occupants of all levels by considering all areas to be a single floor area for the determination of required exit capacity.
     - 3.2.5. Each floor level, considered separately, has not less than one-half of its individual required exit capacity provided by an exit or exits leading directly out of that level without having to traverse another communicating floor level or be exposed to the smoke or fire spreading from another communicating floor level.
4. In Group A occupancies, a minimum 30-minute enclosure shall be provided to protect all vertical openings not exceeding three stories.

5. In Group B occupancies, a minimum 30-minute enclosure shall be provided to protect all vertical openings not exceeding three stories. This enclosure, or the enclosure specified in Section 802.2.1, shall not be required in the following locations:

   5.1. Buildings not exceeding 3,000 square feet (279 m^2) per floor.

   5.2. Buildings protected throughout by an *approved* automatic fire sprinkler system.

6. In Group E occupancies, the enclosure shall not be required for vertical openings not exceeding three stories where the building is protected throughout by an *approved* automatic fire sprinkler system.

7. In Group F occupancies, the enclosure shall not be required in the following locations:

   7.1. Vertical openings not exceeding three stories.

   7.2. Special-purpose occupancies where necessary for manufacturing operations and direct access is provided to not fewer than one protected stairway.

   7.3. Buildings protected throughout by an *approved* automatic sprinkler system.

8. In Group H occupancies, the enclosure shall not be required for vertical openings not exceeding three stories where necessary for manufacturing operations and every floor level has direct access to not fewer than two remote enclosed stairways or other *approved* exits.

9. In Group M occupancies, a minimum 30-minute enclosure shall be provided to protect all vertical openings not exceeding three stories. This enclosure, or the enclosure specified in Section 802.2.1, shall not be required in the following locations:

   9.1. Openings connecting only two floor levels.

   9.2. Occupancies protected throughout by an *approved* automatic sprinkler system.

10. In Group R-1 occupancies, the enclosure shall not be required for vertical openings not exceeding three stories in the following locations:

    10.1. Buildings protected throughout by an *approved* automatic sprinkler system.

    10.2. Buildings with less than 25 dwelling units or sleeping units where every sleeping room above the second floor is provided with direct access to a fire escape that complies with Section 310 or other *approved* second means of egress ~~exit by means of an *approved* exterior door or window having a sill height of not greater than 44 inches (1118 mm)~~ and where both of the following conditions are met:

        10.2.1. Any exit access corridor exceeding 8 feet (2438 mm) in length that serves two means of egress, one of which is an unprotected vertical opening, shall have not fewer than one of the means of egress separated from the vertical opening by a 1-hour fire barrier.

        10.2.2. The building is protected throughout by an automatic fire alarm system, installed and supervised in accordance with the *International Building Code*.

11. In Group R-2 occupancies, a minimum 30-minute enclosure shall be provided to protect all vertical openings not exceeding three stories. This enclosure, or the enclosure specified in Section 802.2.1, shall not be required in the following locations:

    11.1. Vertical openings not exceeding two stories with not more than four dwelling units per floor.

    11.2. Buildings protected throughout by an *approved* automatic sprinkler system.

    11.3. Buildings with not more than four dwelling units per floor where every sleeping room above the second floor is provided with direct access to a fire escape the complies with Section 310 or other *approved* second means of egress ~~exit by means of an *approved* exterior door or window having a sill height of not greater than 44 inches (1118 mm)~~ and the building is protected throughout by an automatic fire alarm system complying with Section 803.4.

12. One- and two-family dwellings.

13. Group S occupancies where connecting not more than two floor levels or where connecting not more than three floor levels and the structure is equipped throughout with an *approved* automatic sprinkler system.

14. Group S occupancies where vertical opening protection is not required for open parking garages and ramps.

804.5.1.2 Fire escapes required. For other than Group I-2, where more than one exit is required, an existing or newly constructed fire escape complying with Section ~~804.5.1.2.1~~ 310 shall be accepted as providing one of the required means of egress.

Delete without substitution:

~~**804.5.1.2.1 Fire escape access and details**. Fire escapes shall comply with all of the following requirements:~~

~~1. Occupants shall have unobstructed access to the fire escape without having to pass through a room subject to locking.~~

~~2. Access to a new fire escape shall be through a door, except that windows shall be permitted to provide access from single dwelling units or sleeping units in Group R-1, R-2 and I-1 occupancies or to provide access from spaces having a maximum occupant load of 10 in other occupancy classifications.~~

~~2.1. The window shall have a minimum net clear opening of 5.7 square feet (0.53 m^2) or 5 square feet (0.46 m^2) where located at grade.~~

~~2.2. The minimum net clear opening height shall be 24 inches (610 mm) and net clear opening width shall be 20 inches (508 mm).~~

~~2.3. The bottom of the clear opening shall not be greater than 44 inches (1118 mm) above the floor.~~

~~2.4. The operation of the window shall comply with the operational constraints of the *International Building Code*.~~

~~3. Newly constructed fire escapes shall be permitted only where exterior stairways cannot be utilized because of lot lines limiting the stairway size or because of the sidewalks, alleys, or roads at grade level.~~

~~4. Openings within 10 feet (3048 mm) of fire escape stairways shall be protected by fire assemblies having minimum 3/4 hour fire-resistance ratings.~~

~~**Exception:** Opening protection shall not be required in buildings equipped throughout with an *approved* automatic sprinkler system.~~

~~5. In all buildings of Group E occupancy, up to and including the 12th grade, buildings of Group I occupancy, rooming houses and childcare centers, ladders of any type are prohibited on fire escapes used as a required means of egress.~~

~~**804.5.1.2.2 Construction**. The fire escape shall be designed to support a live load of 100 pounds per square foot (4788 Pa) and shall be constructed of steel or other *approved noncombustible materials*. Fire escapes constructed of wood not less than nominal 2 inches (51 mm) thick are permitted on buildings of Type V construction. Walkways and railings located over or supported by combustible roofs in buildings of Types III and IV construction are permitted to be of wood not less than nominal 2 inches (51 mm) thick.~~

~~**804.5.1.2.3 Dimensions**. Stairways shall be not less than 22 inches (559 mm) wide with risers not more than, and treads not less than, 8 inches (203 mm). Landings at the foot of stairways shall be not less than 40 inches (1016 mm) wide by 36 inches (914 mm) long and located not more than 8 inches (203 mm) below the door.~~

Revise as follows:

1305.2.11 Means of egress capacity and number. Evaluate the means of egress capacity and the number of exits available to the building occupants. In applying this section, the means of egress are required to conform to the following sections of the *International Building Code*: 1003.7, 1004, 1005, 1006, 1007, 1016.2, 1026.1, 1028.3, 1028.5, 1030.2, 1030.3, 1030.4 and 1031. The number of exits credited is the number that is available to each occupant of the area being evaluated. Existing fire escapes shall be accepted as a component in the means of egress when conforming to Section ~~504~~ 310.

Under the categories and occupancies in Table 1305.2.11, determine the appropriate value and enter that value into Table 1306.1 under Safety Parameter 1305.2.11, Means of Egress, for means of egress and general safety.

1305.2.11.1 Categories. The categories for means-of-egress capacity and number of exits are:

1. Category a—Compliance with the minimum required means-of-egress capacity or number of exits is achieved through the use of a fire escape in accordance with Section ~~504~~ 310.
2. Category b—Capacity of the means of egress complies with Section 1005 of the *International Building Code*, and the number of exits complies with the minimum number required by Section 1006 of the *International Building Code*.
3. Category c—Capacity of the means of egress is equal to or exceeds 125 percent of the required means-of-egress capacity, the means of egress complies with the minimum required width dimensions specified in the *International Building Code*, and the number of exits complies with the minimum number required by Section 1006 of the *International Building Code*.
4. Category d—The number of exits provided exceeds the number of exits required by Section 1006 of the *International Building Code*. Exits shall be located a distance apart from each other equal to not less than that specified in Section 1007 of the *International Building Code*.
5. Category e—The area being evaluated meets both Categories c and d.

Reason: In the current IEBC, there are two largely duplicative sections that address fire escapes, neither of which is fully coordinated with provisions in the IFC addressing fire escapes. The slight differences between the provisions in the prescriptive compliance method (as referenced in the performance compliance method) and the work area method do not appear to have any substantive basis. It is also confusing that these provisions are scoped to different committees. This proposal relocates the provisions from the prescriptive compliance method (Chapter 5) to the provisions for all compliance methods (Chapter 3). This proposal also incorporates three existing provisions from the work area compliance method to the new uniform provisions:

- Section 804.5.1.2.1(5) becomes 310.1.2.1.
- Section 804.5.1.2.1(2) becomes 310.1.3.1.
- Section 804.5.1.2.1(1) becomes 310.6.

Creating uniform provisions for fire escapes will facilitate further coordination between the IEBC and IFC in a future code development cycle.

This proposal is submitted by the ICC Adaptive Reuse Working Group (ARWG) and the ICC Building Code Action Committee (BCAC).

ARWG was convened in 2024 by ICC Government Relations to explore opportunities to facilitate the reuse of existing nonresidential buildings for multi-family residential uses through better training on use of the International Codes for adaptive reuse work and potential amendments to the International Codes. ARWG held numerous virtual meetings in 2024 and met in person at the 2024 annual business meeting in Long Beach. ARWG consists of code officials, design professionals, and other interested parties.

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal clarifies and consolidates existing requirements related to fire escapes.

EB37-25

EB38-25

IEBC: 401.4 (New)

Proponents: David Bonowitz, representing David Bonowitz, S.E. (dbonowitz@att.net); Kelly Cobeen, Wiss Janney Elstner Associates, representing Self (kcobeen@wje.com); Peter Somers, Magnusson Klemencic Associates, representing self (psomers@mka.com)

2024 International Existing Building Code

Add new text as follows:

401.4 Demolition and replacement. Where the building above the foundation is deemed by the code official to be damaged beyond repair or where the intent is to demolish and replace the damaged building, the replacement building, including its remaining or replaced foundation, shall comply with the requirements for new construction in Chapter 16 of the *International Building Code*.

Reason: If the best way to "repair" a building is to demolish and replace it, should the replacement be designed like a new building? This question has been posed in each of the last two code cycles (see the history below), and there is growing consensus around the answer: Yes, since the replacement will have essentially the same value and longevity as new construction, it should be designed with the standards for new construction.

Many code officials already implement this policy based on their own judgment. But because the code is unclear, practice is inconsistent, and owners do not know in advance what rules will apply. This proposal offers a uniform approach consistent with current IEBC principles. Nearly all agree that where the entire building is destroyed by a damaging event (fire, flood, earthquake, etc.), the replacement structure should be designed and built as new construction.

This proposal codifies this common-sense requirement in two cases:

Where the code official deems the building "damaged beyond repair." Yes, this calls for judgment – the same judgment that is already being applied without this provision. There is no way to fully define and quantify this damage state, and past attempts to do so have failed (see below). Indeed, any quantitative rule would just create a game that the code official will have to referee anyway. So we might as well make it clear from the start that code official discretion will be needed here, as the code official sees fit. If the owner proposes to repair what remains, the code official can accept that and not have to make a call.

Where the owner proposes to demolish the damaged building as a means of "repair." In many such cases, the code official will agree with the owner. In other cases, however, an owner might want to tear down a repairable building in order to take advantage of allowances that the IEBC grants to repairs, but not to new construction. These allowances, which include reduced design loads (Section 304) and the use of "like materials" (Section 302.4), while appropriate for typical damage and repairs, should not apply if the project is essentially new construction. We anticipate some questions about the proposal's details:

Why must the foundation comply, especially given the potential cost of replacing it? The proposal starts by considering damage to the portion above the foundation because fire, earthquake, and other causes of extensive damage often leave the existing foundation intact, or at least reusable. Even so, new structural elements, as required, generally need an equally compliant foundation. Any attempt to write a provision that would allow foundation re-use by default would inevitably end up having to parse deficient conditions. It is better to set an enforceable rule, as proposed, and rely on the judgment of design professionals and code officials for case-by-case variances. That said, nothing in the proposal prevents an adequate foundation in good condition from being re-used with the approval of the code official.

Why does the proposal require IBC compliance for only the structural design in Chapter 16? This responds to questions asked about a similar proposal last cycle (EB36-22; see below). Limiting the requirement to the structural design helps accommodate non-conforming conditions in the original building, e.g. regarding building separation, stair width, or similar issues. In typical repairs, the IEBC already requires the repair itself to match the IBC, with allowances for existing non-conforming conditions. Reduced structural loads are among the IEBC's most common allowances (Section 302.4), so this proposal focuses on Chapter 16. (That said, if the committee prefers to require full IBC compliance, that is easily achieved by simply striking the words "Chapter 16 of".)

What if only part of the building is damaged beyond repair? This proposal does not affect current practice regarding partial demolition and replacement. Such cases will continue to rely on the preferences and judgment of owners, design professionals, and code officials. In the case of damage beyond repair to a well-defined portion of a building, such as a top story or a wing (in plan), one rational approach would be to demolish and replace that portion as if it were an addition, i.e. designed as new construction with consideration for any structural and functional interaction with the remaining portions of the existing building. This approach was part of proposal EB36-22 (see

below), but it raised enough questions about interpretation and potential implementation that committee members suggested it be removed, so we have removed it from this proposal.

Finally, some history. As noted, since the code does not clearly address this situation, code officials have grappled with it inconsistently.

- Some jurisdictions apply a “50 percent replacement cost” threshold adapted from legacy codes, but requiring the code official to calculate replacement costs and account for changing real estate markets was explicitly rejected for the IEBC some years ago (though a similar test is used in flood hazard areas to determine whether damage meets the definition of *substantial damage*).
- Others have tried to define “complete damage,” adapted from the current IEBC definition of *substantial structural damage* or similar measures of the affected area, but none of those attempts have made it into the model code.
- EB41-19 tried to define a triggering loss level as damage “[down] to the foundation,” but that left too many loopholes (e.g. where a nominal portion of the superstructure – just a few feet of framing, or even just a sill plate – remains).
- EB41-19 also suggested treating this situation as a Level 3 alteration, but that would not have invoked “new construction” requirements and would have left open questions about how to define the work area.
- EB36-22 was nearly identical to this proposal, but it included a second sentence addressing cases of partial demolition and replacement (to a wing or “portion” of the building). The proposal was disapproved 8-7 (with the chair breaking a tie vote), with essentially all of the opposition related to the second sentence, which this proposal no longer includes.
- As a public comment in 2022, we proposed eliminating the second sentence, and the revised proposal was supported 93-49 – 65.5% approval, just short of the two-thirds requirement.

Cost Impact: Increase

Estimated Immediate Cost Impact:

$0.00. Where current practice and code official judgment already apply the code this way there will be no cost increase.

The revisions will not have a cost impact since this is essentially a reorganization and clarification of current code requirements for adding new lateral elements into existing URM buildings.

These revisions may or may not have an impact on construction cost, dependent on several factors that can be specific to each individual URM building and retrofit approach.

The revisions in Section A113.1 could lead to minor increase in the construction costs for wall anchorage retrofits depending on which method is used for IEBC-triggered seismic evaluation and retrofit of existing URM buildings (note that chapter A1 is just one of several possible retrofit procedures listed in IEBC Section 304.3.2 for triggered seismic retrofits that allow the use of reduced seismic criteria).

Specifically, this proposal could result in a slight increase in the number of retrofit anchors in a building or require increased length of development of the wall anchorage into the diaphragm system. Additional single anchors can range in cost from $50.00 to $100.00, not including labor.

Given the very wide range of seismic retrofit scope and costs for URM buildings, reflecting high variability in existing structural systems, varying current condition of the structure at the time of retrofit, and range of impacts to existing architectural finishes required to access retrofit areas, a direct cost impact or percentage increase of construction cost is impossible to estimate.

At most this will have a minor increase in the structural cost of the wall anchorage retrofit, which itself is generally a small percentage of the total retrofit cost for most URM retrofits using Appendix A1

Estimated Immediate Cost Impact Justification (methodology and variables):

Because this proposal merely codifies what most jurisdictions and code officials already understand to be the intent of the code with respect to "total loss" buildings, we believe there will actually be no cost increase at all relative to current practice.

But if a jurisdiction currently allows a severely damaged building to be rebuilt entirely from its existing foundation to match the pre-damage nonconforming conditions, the proposal requires only the structural elements of the replacement building to meet IBC requirements as new construction; therefore, there would be no cost increase for any other system or element. Further, even in this second case, damage at a "total loss" level would already trigger structural criteria for new construction for most elements carrying dead, live, snow, and wind (if the damage was due to wind) loads. A cost increase would be expected only with respect to the lateral system of the replacement building (i.e. wind, if the damage was *not* caused by wind, and seismic), where the IEBC allows loads for repair projects lower than loads for new construction. Instead of original wind or reduced seismic loads, the replacement would have to use W and E loads as for new construction.

EB39-25

IEBC: 403.1, SECTION 202 (New)

Proponents: Jeffrey Hugo, NFSA - National Fire Sprinkler Association, representing NFSA (hugo@nfsa.org)

2024 International Existing Building Code

Revise as follows:

403.1 General. *Repairs* shall be done in a manner that maintains the level of fire protection provided. *Construction documents* shall not be required to be prepared or submitted for approval to *repair* a *fire protection system.*

Add new definition as follows:

FIRE PROTECTION SYSTEM. Approved devices, equipment and systems or combinations of systems used to detect a fire, activate an alarm, extinguish or control a fire, control or manage smoke and products of a fire or any combination thereof.

Reason: Construction documents are meant to describe the design, location, and physical characteristics of a project to support the permitting process for new construction or significant alterations. However, when it comes to repairs, the scope of work is fundamentally different. According to the IEBC, repairs involve replacing, renewing, or reconstructing parts of an existing building for maintenance or to fix damage—and for fire protection systems, these repairs must be "like for like" replacements. This means the repaired components must match the original in terms of function, design, and characteristics. Requiring construction documents for repairs is unnecessary because:

1. Repairs Restore, Not Redesign:
   Repairs don't change the original design or functionality of a fire protection system—they simply bring it back to its approved condition. Since the IEBC requires that replacements are "like for like," there's no need for additional documentation to prove compliance with the system's original design.
2. Purpose of Repairs:
   The goal of a repair is straightforward: maintain the system or fix specific damage. This type of work doesn't introduce new construction or changes that would justify creating new construction documents.
3. Avoiding Unnecessary Delays:
   Requiring construction documents for routine repairs adds unnecessary delays and costs for building owners and contractors. It also creates more work for code officials without adding value to the approval process.
4. IEBC Requirements Are Clear:
   The IEBC already specifies that repairs must involve "like for like" replacements, ensuring that the original design, safety features, and compliance are preserved. This requirement ensures repairs meet the same standards without the need for additional documentation.

This proposal adds the definition of fire protection system to the IEBC to align it with the IBC and IFC, creating consistency across the codes. A fire protection system is defined as *approved devices, equipment, and systems or combinations of systems used to detect a fire, activate an alarm, extinguish or control a fire, control or manage smoke and products of a fire, or any combination thereof.* Adding this definition ensures users of the IEBC have a clear understanding of what constitutes a fire protection system, making the code easier to apply and enforce while maintaining consistency with related codes.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

The clarifies the code that construction documents for repairs are not required.

Staff Analysis: This proposal is simply duplicating a definition from the IBC and IFC. The definition cannot be revised in this proposal as it is scoped to another committee.

EB40-25

IEBC: [BS] 405.2.7 (New)

Proponents: Randy Shackelford, representing Simpson Strong-Tie Co. (rshackelford@strongtie.com)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

Add new text as follows:

[BS] 405.2.7 Decks and Balconies. Where damage occurs to gravity load-carrying structural framing components or their connections in decks or balconies, all structural framing components and their connections shall be evaluated and repaired or retrofitted to comply with the applicable provisions for dead, live, snow, and handrail and guard loads of the *International Building Code*.

Exception: Decks and balconies constructed prior to 2018 are permitted to be designed for a live load equal to the occupancy served.

Reason: This code change aims to address one of the elements of a structure that is most likely to deteriorate over time and cause life-safety issues: exterior decks and balconies.

The industry group for the deck industry is NADRA, the North American Deck and Railing Association. They state on their website that "With more than 60 million decks in the US (50m residential and 10m commercial), it is estimated that 30 million decks are past their useful life and need to be replaced or repaired. It is crucial for homeowners to have their decks inspected to verify the integrity of their deck to ensure user safety as well as help extend the deck's life-span, improve appearance, and increase livability."

Professor Emeritus Frank Woeste, a well-known wood engineer, states in his article "Preventing Early Framing Failures" that "Sometimes, the structural connections-think bolts, lag screws, engineered structural screws, ordinary decking screws, concrete anchors, joist hangers, and other structural connector hardware-are deficient due to a design defect or corrosion (rust), which alone can cause a deck element to fail without warning. But decayed framing system components, such as joists, beams, posts, footings, stairways, guard systems and handrails, decking and treads, can alone cause or contribute to a collapse event. Or course, decayed wood coupled with a deficient connection can jointly cause a collapse event."

Failure of deteriorated decks is so common, in fact that there is an actual Deck Safety Month. Several articles and reports of injuries and even deaths related to deck failures are contained in the Bibliography of this proposal.

With so many deck and balcony elements that can deteriorate over time, we think it just makes sense that when part of a deck or balcony is damaged, that it be examined and repaired, if necessary. There is no other trigger that we are aware of that would encourage a building owner to have their deck examined by a professional.

The exception is added because, prior to the 2018 IBC, decks and balconies were designed to resist a live load equal to the occupancy served. In that year the deck live load was increased by 50%. It would be unfair to require decks designed to meet the old live load to be upgraded to the new higher live load.

Bibliography: *Preventing Early Framing Failures* Journal of Light Construction. Author: Frank Woeste. https://www.jlconline.com/deck-builder/preventing-early-deck-framing-failures_o

North American Deck and Railing Association Deck Safety Initiative https://www.nadra.org/deck-safety

Coastal decks: Red rust on decks is a safety warning ICC Building Safety Journal Author: Frank Woeste, Joseph Loferski, Bruce Barker https://www.iccsafe.org/building-safety-journal/bsj-technical/coastal-decks-red-rust-on-decks-is-a-safety-warning/

Local firefighters, coroner fall during deck collapse at scene. WNKY news https://www.wnky.com/local-firefighters-coroner-fall-during-deck-collapse-at-scene/

Deck Collapse on LBI: Two Injured, One Seriously TAPinto Stafford/LBI https://www.tapinto.net/towns/stafford-slash-lbi/sections/home-and-garden/articles/deck-collapse-on-lbi-two-injured-one-seriously

7 hospitalized after porch collapses on Cape Cod Boston 25 News https://www.boston25news.com/news/local/7-hospitalized-after-

porch-collapses-cape-cod/7CJWWJJDJZGPZKX4CS2VU2DCPI/
Investigation underway after Galveston house balcony collapses, killing 'PR Fairy' Susan Farb Morris ABC 13 News
https://abc13.com/post/susan-farb-morris-death-investigation-galveston-beach-house-balcony-collapse/14966607/

Cost Impact: Increase

Estimated Immediate Cost Impact:

Provided that this code proposal alone, rather than just owners preference, requires a damaged deck/balcony to be brought up to code in the case of damage, there will be a cost increase.

Regarding the dollar amount and detail cost – we can provide the following estimate. There are two cases: When the inspection finds that the rest of the deck/balcony still meets code, and when the inspection finds that there are other deficiencies that need to be corrected.

1. Inspection finds that deck/balcony otherwise meets code:

a)

Design professional site visit to examine existing structure and damage to structure:

3 hours x $185/ hr = $555 - including travel time

b) Design professional to analyze structure based on field observations and provide letter of findings

3 hours x $185 / hr = $555

2. If structure is deemed deficient-

a) Design professional provide design drawings and details for retrofit (assume 3 sheets including – specifications / general notes – foundation and framing plan – details)

3 hours design x $185/hr = $555

5 hours drafting x $100 / hr = $400

b) It is impossible to estimate the costs to repair the structurally damaged deck/balcony because it will involve too many factors, such as the size of the deck/balcony, the scope of the damage, what material the deck/balcony is constructed of.

Total to check if it meets code - $1,110

Total if deck/balcony does not meet code to provide design for retrofit: $955

Retrofit/repair cost will vary depending on level of deterioration and is impossible to accurately estimate.

Estimated Immediate Cost Impact Justification (methodology and variables):

Design professional inspection, analysis, and design cost data based on experience of a design engineer in Austin, Texas.

The additional cost to repair/retrofit the deck/balcony will depend on too many variables to be able to make an accurate estimate. It will depend on the size and construction method of the deck/balcony, and scope of the damage to the deck/balcony.

Estimated Life Cycle Cost Impact:

Long term, inspection and improvement of damaged decks/balconies will reduce the possibility of injury to deck/balcony occupants if there were a failure.

EB40-25

EB41-25

IEBC: [BS] 405.2.2, [BS] 405.2.3, [BS] 405.2.4, [BS] 405.2.4.1, [BS] 405.2.5

Proponents: Julie C. Furr, PE, Smith Seckman Reid, Inc, representing Self (jcfurr@ssr-inc.com)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

Revise as follows:

[BS] 405.2.2 Disproportionate earthquake damage. A building assigned to Seismic Design Category D, E or F that has sustained *disproportionate earthquake damage* shall comply with Section 405.2.3. ~~be subject to the requirements for buildings with *substantial structural damage* to vertical elements of the lateral force-resisting system~~.

[BS] 405.2.3 Substantial structural damage to vertical elements of the lateral force-resisting system. ~~A building that has sustained *substantial structural damage*~~ Where the building has sustained *substantial structural damage* based on the amount of damage to the vertical elements of its lateral force-resisting system, the building shall be evaluated in accordance with Section 405.2.3.1, and either repaired in accordance with Section 405.2.3.2 or repaired and retrofitted in accordance with Section 405.2.3.3, depending on the results of the evaluation.

Exceptions:

1. Buildings assigned to Seismic Design Category A, B or C whose *substantial structural damage* was not caused by earthquake need not be evaluated or retrofitted for load combinations that include earthquake effects.
2. One- and two-family dwellings need not be evaluated or retrofitted for load combinations that include earthquake effects.

[BS] 405.2.4 Substantial structural damage to gravity load-carrying components. Where the building has sustained *substantial structural damage* based on the amount of damage to gravity load-carrying components, damaged gravity load-carrying components ~~Gravity load-carrying components that have sustained *substantial structural damage* s~~hall be retrofitted to comply with the applicable provisions for dead, live and snow loads in the *International Building Code*. Undamaged gravity load-carrying components, including undamaged foundation components, that receive dead, live or snow loads from retrofitted components shall also be retrofitted if required to comply with these design loads.

[BS] 405.2.4.1 Lateral force-resisting system ~~elements~~. ~~Regardless of the level of damage to vertical elements of the lateral force-resisting system, if *substantial structural damage*~~ Where the building has sustained *substantial structural damage* based on the amount of damage to gravity load-carrying components, and the damage was caused primarily by wind or seismic effects, ~~then~~ the building shall be evaluated in accordance with Section 405.2.3.1 and, if noncompliant, retrofitted in accordance with Section 405.2.3.3.

Exceptions:

1. Buildings assigned to Seismic Design Category A, B or C whose *substantial structural damage* was not caused by earthquake need not be evaluated or retrofitted for load combinations that include earthquake effects.
2. One- and two-family dwellings need not be evaluated or retrofitted for load combinations that include earthquake effects.

[BS] 405.2.5 Substantial structural damage to snow load-carrying components. ~~Where *substantial structural damage* to any snow load-carrying components is caused by or related to snow load effects, any~~ Where the building has sustained substantial structural damage based on the amount of damage to gravity load-carrying components caused by snow effects, damaged and undamaged components required to carry snow loads on roof framing of similar construction shall be repaired, replaced or retrofitted to satisfy the requirements of Section 1608 of the *International Building Code*.

Reason: This proposal clarifies that *substantial structural damage* is a condition sustained by the BUILDING, not individual

components/systems. While SSD is determined based on the amount of collective damage to components/systems, the components/systems themselves are either undamaged or damaged and require repair. No technical changes have been made to the intent of the sections. This clarification is necessary to avoid confusion caused by literal interpretations of the current language.

For example: it has been argued that in a storm damaged building, individual elements that were damaged but still standing were not required to be brought up to current code, since less than 20% of each individual element was damaged. The roof had experienced a partial collapse and one exterior wall had completely collapsed, resulting in a determination of SSD for the building.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal clarifies intent and does not make technical changes to the provisions.

EB41-25

EB42-25

IEBC: SECTION 202, [BS] 405.2.4, [BS] 405.2.5, [BS] 405.2.4.1

Proponents: Julie C. Furr, representing NCSEA Existing Building Committee (jcfurr@ssr-inc.com); Emily Guglielmo, representing NCSEA (eguglielmo@martinmartin.com)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

Revise as follows:

[BS] SUBSTANTIAL STRUCTURAL DAMAGE. A condition where any of the following apply:

1. The vertical elements of the lateral force-resisting system have suffered damage such that the lateral load-carrying capacity of any story in any horizontal direction has been reduced by more than 33 percent from its predamage condition.

2. The capacity of any vertical component carrying gravity load, or any group of such components, that has a tributary area more than 30 percent of the total area of the structure's floor(s) and roof(s) has been reduced more than 20 percent from its predamage condition, and the remaining capacity of such affected elements, with respect to all dead and live loads, is less than 75 percent of that required by the *International Building Code* for new buildings of similar structure, purpose and location.

3. The capacity of any structural component carrying snow load, or any group of such components, that supports more than 30 percent of the roof area of similar construction has been reduced more than 20 percent from its predamage condition <u>caused by snow loads</u>, and the remaining capacity with respect to dead, live and snow loads is less than 75 percent of that required by the *International Building Code* for new buildings of similar structure, purpose and location.

For purposes of this definition, work done to implement repairs shall not be considered damage that reduces structural capacity.

[BS] 405.2.4 Substantial structural damage to gravity load-carrying components. Gravity load-carrying components that have sustained *substantial structural damage* shall be retrofitted to comply with the applicable provisions for dead, live and snow loads in the *International Building Code*. ~~Undamaged~~ <u>Damaged or undamaged</u> gravity load-carrying components, including undamaged foundation components, that receive dead, live or snow loads from retrofitted components shall also be retrofitted if required to comply with these design loads.

[BS] ~~405.2.5~~ <u>405.2.4.1</u> Substantial structural damage to snow load-carrying components. Where *substantial structural damage* to any snow load-carrying components is caused by or related to snow load effects, any components required to carry snow loads on roof framing of similar construction shall be repaired, replaced or retrofitted to satisfy the requirements of Section 1608 of the *International Building Code*.

[BS] ~~405.2.4.1~~ <u>405.2.4.2</u> Lateral force-resisting elements. Regardless of the level of damage to vertical elements of the lateral force-resisting system, if *substantial structural damage* to gravity load-carrying components was caused primarily by wind or seismic effects, then the building shall be evaluated in accordance with Section 405.2.3.1 and, if noncompliant, retrofitted in accordance with Section 405.2.3.3.

Exceptions:

1. Buildings assigned to Seismic Design Category A, B or C whose *substantial structural damage* was not caused by earthquake need not be evaluated or retrofitted for load combinations that include earthquake effects.
2. One- and two-family dwellings need not be evaluated or retrofitted for load combinations that include earthquake effects.

Reason: This proposal does three things:

1. Clarifies that when substantial structural damage has occurred, damaged and undamaged elements within the load path must be

considered when designing repairs.

2. Clarifies that Item 3 of the SSD definition applies only when the damage has been caused by snow.
3. Reorders sections so that both 405.2.5 and 405.2.4.1 are subsections of 405.2.4

Item-3 was introduced into the 2018 IEBC specifically to address roof framing components
that were damaged from snow load effects. Prior to the 2018 IEBC, only elements damaged from snow required repair. Since the 2015 edition of the IEBC, damage to
components supporting snow load would have been considered less-than substantial damage and allowed to be restored to its pre-damaged condition.

The 2009 Spokane / Coeur d'Alene and 2011, 2015 New England winters resulted in hundreds of damaged or collapsed roofs. As a result, the variable loading patterns of snow was considered a potential hazard to other undamaged roof framing components of similar construction and the concern was addressed in item-3.

The way the current language is written, if a roof is damaged from other effects such as fire of deterioration and is in a region where snow loads apply, and more than 30% of if components of similar construction are damaged, it would be considered substantial structural damage and subjected to repair section 405.2.4.

In 2021, compliance with snow loads was added to 405.2.4 meaning that repair to components carrying snow load damaged by effects other than snow load would have to be repaired to consider IBC snow loads as well as components receiving dead, live and snow loads from retrofitted components including foundations.

Clearly, this could lead to a substantial effort for repairs of damaged components not related to snow load effects. This code change proposal restores the original intent of the code and clarifies the intent of Item-3 that was meant to address only components damaged from the effects of snow.

Cost Impact: Decrease

Estimated Immediate Cost Impact:

Minimum $0.00. Where current practice and code official judgment already apply the code, this way the revisions will reduce the costs of repairing components carrying snow load if the damage was not from the effects of snow load and will not have a cost impact.

Estimated Immediate Cost Impact Justification (methodology and variables):

This code change proposal would reduce the costs of repairing components carrying snow load if
the damage was not from the effects of snow load, but minimally the cost would not increase.

EB42-25

EB43-25

IEBC: [BS] 405.2.4

Proponents: Michael Fillion, representing self (mrf.structure@verizon.net)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

Revise as follows:

[BS] 405.2.4 Substantial structural damage to gravity load-carrying components. Gravity load-carrying components that have sustained *substantial structural damage* shall be retrofitted to comply with the applicable provisions for dead, live and snow loads in the *International Building Code*. Undamaged gravity load-carrying components, including undamaged foundation components, that receive dead, live or snow loads from retrofitted components shall also be retrofitted if required to comply with these design loads.

Exception: Components that have sustained substantial structural damage from snow loads.

Reason: This code change proposal is for clarification and to assure that the code user is directed to the correct section of this code when evaluating gravity load-carrying components that have sustained substantial structural damage. Prior to the 2018 edition of the IEBC, there were two conditions that described substantial structural damage, Condition-1 applied to vertical elements of the lateral force-resisting system and Condition-2 applied to vertical components carrying gravity load. For Condition-2, the corresponding repair section is **405.2.4**, substantial structural damage to gravity load-carrying components which required gravity load-carrying components that have sustained substantial structural damage to be retrofitted to comply with the applicable provisions for dead and live loads in the International Building Code.

In the 2011 and 2015 New England winters, they experienced a prolonged period of sub-freezing temperatures and a series of snowstorms, the cumulative effect resulting in hundreds of roofs being damaged or collapsed from snow loads. The 2015 IEBC and prior editions allowed these snow damaged components to be restored to their predamaged condition. Of concern was when there was damage to a substantial number of similar components. Due to variations in wind direction affecting snow drifts and areas of snow accumulation along with other factors, there was concern that the other undamaged components of similar construction could also, in time, be subjected to the same damaging effects. These concerns were addressed in the 2018 IEBC. Section **405.2.1.1** requires that when there is less than substantial structural damage, structural components whose damage was caused by or related to snow load effects shall be repaired, replaced or altered to satisfy the requirements of Section 1608 of the International Building Code. To address the concern of when a substantial amount of similar components are damaged, **Condition-3** was added to the definition of substantial structural damage and applied when more than 30 percent of the roof area of similar construction has been reduced more than 20 percent from its predamaged condition, and the remaining capacity with respect to dead, live and snow loads is less than 75 percent of that required by the international building code for new buildings. As an example of similar construction, consider the drifting zone between a high and low roof. If more than 30 percent of the roof rafters in that zone sustain substantial structural damage, then the remaining undamaged rafters in that zone would have to be evaluated for IBC compliance and retrofitted if required. The corresponding repair section for substantial structural damage to snow load-carrying components is **405.2.5.**

In the 2021 Edition of the IEBC, snow loads were added to the retrofit compliance requirement of section **405.2.4.**

Because of that, when there is substantial structural damage to gravity load carrying components caused by snow, sections **405.2.4** and **405.2.5** both apply. These sections have different repair / evaluation scopes. For section **405.2.4**, the damaged components are required to be repaired, section **405.2.5** not only requires the damaged components to be repaired but also requires undamaged components of similar construction to be evaluated and retrofitted as required for IBC compliance.

By adding the exception, users are directed to the proper repair section.

For substantial structural damage Condition-2, section **405.2.4** is used. For Condition-3, section **405.2.5** is used.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This code change proposal is for clarification to direct code users to the correct code section

EB43-25

EB44-25

IEBC: 406.1, NFPA Chapter 16 (New)

Proponents: Bryan Holland, representing National Electrical Manufacturers Association (NEMA) (bryan.holland@nema.org)

2024 International Existing Building Code

Revise as follows:

406.1 General. Maintenance and *repairs* ~~*Repairs*~~ to existing electrical wiring and equipment shall be in accordance with NFPA 70 and NFPA 70B, as applicable.

Add new standard(s) as follows:

NFPA

National Fire Protection Association
1 Batterymarch Park
Quincy, MA 02169-7471

70B-23 Standard for Electrical Equipment Maintenance

Reason: This proposal adds the term “maintenance” and a pointer to NFPA 70B in section 406.1 to ensure existing electrical wiring and equipment are properly maintained and repaired in compliance with the NEC and NFPA 70B. NFPA 70B details preventive maintenance for electrical, electronic, and communication systems and equipment, such as those used in industrial plants, institutional and commercial buildings, and large multi-family residential complexes, to prevent equipment failures and worker injuries. The section 202 definition of “Repair” is: *The reconstruction, replacement or renewal of any part of an existing building for the purpose of its maintenance or to correct damage*. As such, it is essential that Section 406.1 pointer users to the applicable NFPA standard for electrical equipment maintenance. The proposal also adds the 70B standard to Chapter 16 as an official referenced standard.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This code proposal has no cost impact on the cost of construction but will require compliance with NFPA 70B when electrical equipment installed in an existing building undergoes repair or maintenance. The cost to maintain equipment varies greatly and is dependent on the scale, scope, environmental conditions, and other variables associated with the electrical equipment being maintained.

Staff Analysis: A review of the standard proposed for inclusion in the code, NFPA 70B--2023 Standard for Electrical Equipment Maintenance, with regard to some of the key ICC criteria for referenced standards (Section 4.6 of CP#28) will be posted on the ICC website on or before April 1, 2025.

EB45-25

IEBC: 407.2, UL Chapter 16 (New)

Proponents: Andrew Bevis, Chair, representing Plumbing, Mechanical and Fuel Gas Code Action Committee (pmgcac@iccsafe.org); Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

407.2 Mechanical draft systems for manually fired appliances and fireplaces. A mechanical draft system shall be permitted to be used with manually fired appliances and fireplaces where such a system complies with all of the following requirements:

1. The mechanical draft device shall be *listed* and labeled in accordance with UL 378 and shall be installed in accordance with the manufacturer's ~~installation~~ instructions.
2. A device shall be installed that produces visible and audible warning upon failure of the mechanical draft device or loss of electrical power at any time that the mechanical draft device is turned on. This device shall be equipped with a battery backup if it receives power from the building wiring.
3. A smoke detector shall be installed in the room with the appliance or fireplace. This device shall be equipped with a battery backup if it receives power from the building wiring.

Add new standard(s) as follows:

UL

UL LLC
333 Pfingsten Road
Northbrook, IL 60062

UL 378--2006 Draft Equipment—With Revisions Through September 2013

Reason: These changes will align with the changes to this specific requirement in Section 804.3.8 of the International Mechanical Code. The PMCCAC recommends that the Code Correlation Committee assign a [M] scoping to this section because this is specifically covered already in the IMC. Having the same committee responsible for this requirement in the I-Codes will help ensure consistency.

PMGCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held numerous virtual meetings open to any interested party. Related documents and reports are posted on the PMGCAC website at PMGCAC webpage.

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal aligns with what is already required by the IMC.

Staff Analysis: The proposed referenced standards are currently referenced in the IMC:

- UL 378--2006, Draft Equipment--With Revisions Through Septemnber 2013

EB46-25

IEBC: 408.1

Proponents: Gregory Benton, NYS, representing Department of State, Division of Building Standards and Codes (gregory.benton@dos.ny.gov); China Clarke, representing New York State Dept of State (china.clarke@dos.ny.gov); Chad Sievers, NYS, representing NYS Dept of State (chad.sievers@dos.ny.gov); Jeanne Rice, representing NYSDOS (jeanne.rice@dos.ny.gov); Bryant Arms, representing NYS DOS (bryant.arms@dos.ny.gov)

2024 International Existing Building Code

Revise as follows:

408.1 Materials. Plumbing materials and supplies that are prohibited in the *International Plumbing Code* shall not be used for *repairs* ~~that are prohibited in the *International Plumbing Code*~~.

Reason: Current wording can be easily misinterpreted to mean repairs can't be performed on prohibited plumbing configurations, i.e. building traps, rather than prohibited materials and supplies can't be used for repairs. Suggest rearranging wording to make this more straightforward.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is solely an editorial clarification.

EB47-25

IEBC: 408.2

Proponents: Andrew Bevis, Chair, representing Plumbing, Mechanical and Fuel Gas Code Action Committee (pmgcac@iccsafe.org); Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

408.2 Maximum flow and w~~W~~ater ~~closet replacement~~ consumption. The maximum flow and water consumption ~~flow rates and quantities~~ for all replaced ~~water closets~~ plumbing fixtures shall ~~be 1.6 gallons (6 L) per flushing cycle.~~ comply with the *International Plumbing Code* or *International Residential Code*.

~~**Exception:** Blowout design water closets [3.5 gallons (13 L) per flushing cycle].~~

Reason: The IPC and IRC provides consumption flow rates and quantities for a number of plumbing fixtures. This requirement should cover all fixtures with consumption and flow rates requirements, not just water closets.

The PMGCAC recommends that the Code Correlation Committee assign a [P] scoping to this section because the plumbing code committee has oversight on plumbing fixture requirements. Having the same committee responsible for plumbing fixtures in the I-Codes will help ensure consistency.

PMGCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held numerous virtual meetings open to any interested party. Related documents and reports are posted on the PMGCAC website at PMGCAC webpage.

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This will not increase the cost of construction. This is not a requirement to replace all water closets. The requirement only applies when the water closet is replaced. The cost is already present by choosing to replace the water closet.

EB48-25

IEBC: 501.1, 501.1.1, 601.1, 601.1.1, 1301.1, 1301.1.1

Proponents: Grant Ullrich, Chair, representing ICC Adaptive Reuse Working Group (grant.ullrich@cityofchicago.org); Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

501.1 Scope. ~~The provisions of this chapter shall control the alteration,~~ *Alterations, additions* and *changes of occupancy* ~~of~~ to *existing buildings* ~~and structures~~, including *historic buildings*, ~~and structures as referenced in Section 301.3.1~~ using the prescriptive compliance method shall comply with this chapter.

Delete without substitution:

~~**501.1.1 Compliance with other methods.** *Alterations*, *additions* and *changes of occupancy* to *existing buildings* and structures shall comply with the provisions of this chapter or with one of the methods provided in Section 301.3.~~

Revise as follows:

601.1 Scope. ~~The provisions of this chapter shall be used in conjunction with Chapters 7 through 12 and shall apply to the *alteration*~~ *Alterations*, *additions* and *changes of occupancy* ~~of~~ to *existing* ~~*structures*~~ *buildings*, including ~~historic structures~~ *historic buildings*, ~~as referenced in Section 301.3.2. The work performed on an *existing building* shall be classified in accordance~~ using the work area compliance method shall comply with this chapter.

Delete without substitution:

~~**601.1.1 Compliance with other alternatives.** *Alterations*, *additions* and *changes of occupancy* to *existing structures* shall comply with the provisions of Chapters 7 through 12 or with one of the alternatives provided in Section 301.3.~~

Revise as follows:

1301.1 Scope. ~~The provisions of this chapter shall apply to the *alteration*~~ *Alterations*, *additions* and *changes of occupancy* ~~of~~ to *existing* ~~*structures*~~ *buildings*, including ~~historic structures~~ *historic buildings*, as ~~referenced in Section 301.3.3~~ using the performance compliance method shall comply with this chapter. ~~The provisions of this chapter are intended to maintain or increase the current degree of public safety, health and general welfare in *existing buildings* while permitting *alteration*, *addition* and *change of occupancy* without requiring full compliance with Chapters 6 through 12, except where compliance with the prescriptive method of Chapter 5 or the work area method of other provisions of this code is specifically required in this chapter.~~

Delete without substitution:

~~**1301.1.1 Compliance with other methods.** *Alterations*, *additions* and *changes of occupancy* to *existing structures* shall comply with the provisions of this chapter or with one of the methods provided in Section 301.3.~~

Reason: This proposal is an editorial cleanup of Sections 501.1, 601.1, 1301.1. First, the referenced types of work are changed from singular to plural for consistency with other code sections, including Chapter 3. Second, terminology is standardized to use the defined terms "existing building" and "historic building." Because of the revised wording of these sections, their subsections are no longer needed and deleted without substitution.

This proposal is submitted by the ICC Adaptive Reuse Working Group (ARWG) and the ICC Building Code Action Committee (BCAC).

ARWG was convened in 2024 by ICC Government Relations to explore opportunities to facilitate the reuse of existing nonresidential

buildings for multi-family residential uses through better training on use of the International Codes for adaptive reuse work and potential amendments to the International Codes. ARWG held numerous virtual meetings in 2024 and met in person at the 2024 annual business meeting in Long Beach. ARWG consists of code officials, design professionals, and other interested parties.

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal is editorial. See reason statement.

EB48-25

EB49-25

IEBC: 502.1, 502.1.1 (New), 502.1.2 (New)

Proponents: Kurt Beres, representing MA Design (kurtb@ma-architects.com)

2024 International Existing Building Code

Revise as follows:

502.1 General. *Additions* to any building or structure shall comply with the requirements of the *International Building Code* for new construction. *Alterations* to the *existing building* or structure shall be made to ensure that the *existing building* or structure together with the *addition* are not less complying with the provisions of the *International Building Code* than the *existing building* or structure was prior to the *addition* except that the structural elements need only comply with Sections 502.2 through 502.3.An *existing building* together with its *additions* shall comply with the height and area provisions of Chapter 5 of the *International Building Code*. Where a new *occupiable roof* is added to a building or structure, the *occupiable roof* shall comply with the provisions of the *International Building Code* .

~~Exception~~ Exceptions:

1. In-filling of floor openings and nonoccupiable appendages such as elevator and exit stairway shafts shall be permitted beyond that permitted by the *International Building Code.*
2. In Other than Group R and Group I Occupancies, additions complying with section 502.1.1 through 502.1.2.

Add new text as follows:

502.1.1 Exceeding allowable height or area. When the combined height or area of the existing building and the addition exceeds the height or area allowed by Chapter 5 of the International Building Code, including any allowable area and height increases, a fire wall or a fire barrier is to be provided between the existing building and addition. The following requirements shall apply:

1. When a fire wall that complies with Section 706 of the International Building Code is constructed between the existing building and the addition, the addition shall be is permitted to be considered a separate building.
2. When a fire barrier that complies with Section 707 of the International Building Code is constructed between the addition, all of the following is required shall comply:
   - 2.1. The combined height and area of the existing building and the addition are to be used to determine the construction type and the fire protection requirements for the addition.
   - 2.2. The construction type of the existing building and addition may differ.
   - 2.3. When the addition is equipped throughout with an automatic sprinkler system installed in accordance with section 903.3.1.1 of the International Building Code, the following is permitted shall apply:
     - 2.3.1. The Chapter 5 tabular values corresponding to a building equipped throughout with an automatic sprinkler installed in accordance with 903.3.1.1 of the building code may be used, whether or not the existing building is equipped throughout with an automatic sprinkler system. in accordance with 903.3.1.1 of the building code.
     - 2.3.2. The addition is eligible for all applicable code alternatives, exceptions, trade-offs or reductions whether or not the existing building is equipped throughout with an automatic sprinkler system in accordance with section 903.3.1.1. of the building code.
     - 2.3.3. A new fire protection system is not required in the existing building. Any existing fire protection systems shall be maintained in the existing building, if provided.

502.1.2 Not Exceeding allowable height and area.. When the combined height and area of the existing building and the addition does

not exceed the height and area allowed by Chapter 5 of the International Building Code, but the area of the existing building plus the new addition creates a fire area greater than the threshold limits of Chapter 9 of the International Building Code, the limit of the protection system installation is to be determined in accordance with one of the following:

1. When a fire wall that complies with Section 706 of the International Building Code is constructed between the existing building and the addition, a fire protection system is to be provided in the addition where required by Chapter 9 of the International Building Code in the addition only.
2. When a fire barrier that complies with Table 707.3.10 of the International Building Code is constructed between the exiting building and the addition, a fire protection system is to be provided in the addition where required by Chapter 9 of the International Building Code in the addition only.
3. When a fire wall or a fire barrier is not provided between the existing building and the addition, a fire protection system is to be installed where required by Chapter 9 of the International Building Code in the addition and the fire protection system must extend into the existing building to a fire barrier complying with Table 707.3.10 of the International Building Code.

Reason: The proposed code modification is based on the Ohio Existing Building Code and provides alternatives to the design of additions to existing buildings that may not be able to be modified due to a) technical feasibility, b) cost impacts of making the entire combined building compliant with the building code. As a result it increases design flexibility, adaptive reuse of existing structures, while reducing cost. It has proven to be a beneficial addition to the Ohio Building Code that would benefit from use and input from a wider audience.

Bibliography: 2024 Ohio Existing Building Code forms the basis for this proposed section.

Cost Impact: Decrease

Estimated Immediate Cost Impact:

The cost impact will vary by project but it is expected that not only will there be a reduction in the cost due to constructing fire barriers in lieu of fire walls, but it will allow for increased adaptive reuse of existing structures where modifying the existing structure is cost prohibitive.

Estimated Immediate Cost Impact Justification (methodology and variables):

Variables:

The size, length of fire wall, and extent of existing fire suppression.

Fire Wall to Fire Barrier converting a fire wall to fire barrier on a most recent project resulted in $457/lf to $377lf reduction or roughly 17.5% in the construction of the wall.

Sprinklers from another recent project to install into an existing structure was $8/sf. So assuming an existing 9,000sf small warehouse building 50'x180' with a new addition of indeterminate size. The cost savings would be $72,000 for a sprinkler system and potentially $4,000 in the construction of the wall.

Methodology:

There is a significant cost difference between building fire barriers vs. fire walls, and adding sprinklers to existing structures. The above example is based on recent sf and lf costs for fire barriers vs fire walls as well as adding a sprinkler system to an existing structure. The LF for a Fire Wall vs/ Fire Barrier did not include any costs associated with additional structure to construct the fire wall, or rated door assemblies. The sprinkler value did not include any additional pip or capacity sizing to expand the sprinkler main to accommodate the existing structure vs the addition as these can vary.

Estimated Life Cycle Cost Impact:

There can be significant reduction of cost, as it expands the life cycle of existing structures, allowing them to be more easily incorporated into expansions and/or additions.

EB50-25

IEBC: CHAPTER 5, SECTION 502, 502.1.1, CHAPTER 11, SECTION 1101, [BS] 1101.3

Proponents: Julius Carreon, City of Bellevue, representing Washington Association of Building Officials Technical Code Development Committee (jcarreon@bellevuewa.gov); Micah Chappell, Seattle Dept. of Construction and Inspections (SDCI), representing Washington Association of Building Officials Technical Code Development Committee (WABO TCD) (micah.chappell@seattle.gov)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

CHAPTER 5
PRESCRIPTIVE COMPLIANCE METHOD

SECTION 502
ADDITIONS

Revise as follows:

[BS] 502.1.1 Risk category assignment. The risk category of the *addition* and *existing building* shall be classified in accordance with Section 1604.5 of the *International Building Code.* Where the *addition* is structurally independent of ~~and~~ the *existing building*, or the addition and the existing building have different occupancies, the *risk category* of each existing and added occupancy shall be determined in accordance with Section 1604.5.1 of the *International Building Code*. Where application of that section results in a higher *risk category* for the *existing building* compared with the *risk category* for the *existing building* before the *addition*, such a change shall be considered a *change of occupancy* and shall comply with Section 506 of this code. Where application of that section results in a higher *risk category* for the *addition* compared with the *risk category* for the *addition* by itself, the *addition* and any systems in the *existing building* required to serve the *addition* shall comply with the requirements of the *International Building Code* for new construction for the higher *risk category*. Where the addition is not structurally independent of the *existing building*, the *existing building* and its *addition* acting together as a single structure shall be assigned a risk category in accordance with Table 1604.5 of the *International Building Code.* Where the *addition* results in a building being assigned to a higher *risk category* for the *existing building* compared with the *risk category* for the *existing building* before the *addition*, such a change shall comply with Section 506 of this code.

Exception: Unless risk category IV is triggered, the original risk category classification of the existing building is permitted to remain where the increase in building area or increase in occupant load due to the addition is less than 10 percent than before the addition. The cumulative effect of changes in building area or occupant load over time shall be considered.

CHAPTER 11
ADDITIONS

SECTION 1101
GENERAL

[BS] 1101.3 Risk category assignment. The risk category of the *addition* and *existing building* shall be classified in accordance with Section 1604.5 of the *International Building Code.* Where the *addition* is structurally independent of ~~and~~ the *existing building*, or the addition and the existing building have different occupancies, the *risk category* of each existing and added occupancy shall be determined in accordance with Section 1604.5.1 of the *International Building Code*. Where application of that section results in a higher *risk category* for the *existing building* compared with the *risk category* for the *existing building* before the *addition*, such a change shall be considered a *change of occupancy* and shall comply with Chapter 10 of this code. Where application of that section results in a higher *risk category* for the *addition* compared with the *risk category* for the *addition* by itself, the *addition* and any systems in the *existing*

building required to serve the *addition* shall comply with the requirements of the *International Building Code* for new construction for the higher *risk category*. Where the addition is not structurally independent of the *existing building*, the *existing building* and its *addition* acting together as a single structure shall be assigned a risk category in accordance with Table 1604.5 of the *International Building Code.* Where the *addition* results in a building being assigned to a higher *risk category* for the *existing building* compared with the *risk category* for the *existing building* before the *addition*, such a change shall comply with Chapter 10 of this code.

Exception: Unless risk category IV is triggered, the original risk category classification of the existing building is permitted to remain where the increase in building area or increase in occupant load due to the addition is less than 10 percent than before the addition. The cumulative effect of changes in building area or occupant load over time shall be considered.

Reason: The proposed amendment to Sections 502.1.1 and 1101.3 of the International Existing Building Code (IEBC) aims to provide clear and specific guidelines for assigning risk categories to building additions and the existing structures they adjoin.

Historically, users of the International Existing Building Code (IEBC) referred to Section 1604.5 of the International Building Code (IBC) to determine the appropriate risk category, as there was no explicit provision within the IEBC itself. The 2024 edition of the IEBC now includes a provision for risk category assignment for additions. However, the amendments to Sections 502.1.1 and 1101.3 specifically address the assignment of risk categories in cases where the addition and the existing building have different uses (multiple occupancies). These amendments do not address scenarios where the addition and the existing building share similar occupancies or when an addition is structurally connected to the existing building. This omission may lead to confusion among users regarding the continued necessity of referring to IBC Section 1604.5 to determine the risk category for these cases.

This proposal resolves potential ambiguities by:

- Adding a reference to IBC Section 1604.5 for general risk category classification.
- Establishing that when an addition is structurally independent or occupied by different occupancies, the risk category for each portion shall be evaluated per IBC Section 1604.5.1 and the new IEBC provisions in Section 502.1.1 (and Section 1101.3) to determine whether the existing building and/or the addition must be classified under a higher risk category.
- Establishing that when an addition is not structurally independent, regardless whether the addition and the existing building have different or similar uses, the combined structure shall be assigned a single risk category using IBC Table 1604.5.

If the addition results in a higher risk category for the existing building, the change must comply with IEBC Section 506, the Change of Occupancy provision for the prescriptive method, or IEBC Chapter 10 for the work area method.

This proposal provides an exception that allows the original risk category to remain if the increase in building area or occupant load is less than 10%, unless risk category IV is triggered. This proposed exception aligns with the lateral design exceptions offered for existing buildings in other sections of the IEBC, such as Exception 1 of Section 506.5.3, concerning seismic loads for buildings and structures undergoing a change of occupancy. This exception provides the necessary flexibility to existing buildings undergoing small additions that do not involve essential facilities.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

The code change proposal will not increase or decrease the cost of construction since this is intended to clarify the proper application of the code. In some cases, with small additions, construction costs may decrease because this proposal provides an exception for triggering a higher risk category if the proposed addition is less than 10% of the existing building.

EB50-25

EB51-25

IEBC: 502.1.2, 1101.2

Proponents: David Bonowitz, representing David Bonowitz, S.E. (dbonowitz@att.net); Kelly Cobeen, Wiss Janney Elstner Associates, representing Self (kcobeen@wje.com); Peter Somers, Magnusson Klemencic Associates, representing self (psomers@mka.com)

2024 International Existing Building Code

Revise as follows:

502.1.2 Creation or extension of nonconformity. ~~An *addition* shall not~~ Where the intended *addition* would create or extend any nonconformity in the *existing building* to which the *addition* is being made with regard to accessibility, structural strength, supports and attachments for nonstructural components, fire safety, means of egress or the capacity of mechanical, plumbing or electrical systems, the nonconforming components and systems shall be altered to comply with the requirements of the *International Building Code* for new construction.

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Exception: Nonconforming supports and attachments for nonstructural components that serve the *addition* from within the *existing building* need not be altered to comply with *International Building Code* Section 1613 unless the components are part of the *addition*'s life-safety system or are required to serve an *addition* assigned to *Risk Category* IV.

1101.2 Creation or extension of nonconformity. ~~An *addition* shall not~~ Where the intended *addition* would create or extend any nonconformity in the *existing building* to which the *addition* is being made with regard to accessibility, structural strength, supports and attachments for nonstructural components, fire safety, means of egress or the capacity of mechanical, plumbing or electrical systems, the nonconforming components and systems shall be altered to comply with the requirements of the *International Building Code* for new construction.

Exception: Nonconforming supports and attachments for nonstructural components that serve the *addition* from within the existing building need not be altered to comply with *International Building Code* Section 1613 unless the components are part of the *addition*'s life safety system or are required to serve an *addition* assigned to *Risk Category* IV.

Reason: The proposal is an editorial clarification. The current wording just says what's not allowed. More effective wording, as proposed, tells the user what to do in unacceptable cases, with specific design criteria. This is consistent with how other structural provisions in the IEBC are written. The IBC is specified as the criteria for modification of any non-conforming elements, consistent with the rest of Sections 502 and 1101, which are about additions.

As background, we note that Section 502.1.2 was added to the 2024 IEBC by proposal EB48-22 (SCSC was the proponent), based on wording and logic from Section 1101.2. EB48-22 added the words "supports and attachments for nonstructural components," as well as the Exception.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

The proposal merely restates the current provision in a way that is more direct and complete for the user, consistent with how other IEBC provisions are written.

EB52-25 Part I

IEBC: [BS] 502.2, [BS] 1103.3, ACI Chapter 16 (New)

Proponents: Rebecca Quinn, RCQuinn Consulting, representing Association of State Floodplain Managers (rebecca@rcquinnconsulting.com); Chad Berginnis, representing Association of State Floodplain Managers (cberginnis@floods.org)

THIS IS A 2 PART CODE CHANGE. PART I WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. PART II WILL BE HEARD BY THE IRC-B CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THESE COMMITTEES.

2024 International Existing Building Code

CHAPTER 5
PRESCRIPTIVE COMPLIANCE METHOD

Revise as follows:

[BS] 502.2 Flood hazard areas. For buildings and structures in *flood hazard* areas established in Section 1612.3 of the *International Building Code*, or Section R322 of the *International Residential Code*, additions and foundations shall comply with the following, as applicable~~,~~:

1. An ~~any~~ *addition* that constitutes *substantial improvement* of the *existing structure* shall comply with the flood design requirements for new construction, and all aspects of the *existing structure* shall be brought into compliance with the requirements for new construction for flood design.
2. For new foundations, foundations raised or extended upward, and replacement foundations, the foundations shall be in compliance with the requirements for new construction for flood design.
3. Existing buildings with slab-on-ground foundations shall not be elevated on new, raised, extended, or replaced foundations unless the existing slabs are assessed in accordance with ACI 562 and, if required in accordance with the assessment, strengthened in accordance with ACI 562 and ACI 318 to meet the load requirements of Chapter 16 of the *International Building Code*, or Chapter 3 of the *International Residential Code*, as applicable.
4. ~~For buildings and structures in *flood hazard areas* established in Section 1612.3 of the *International Building Code*, or Section R322 of the *International Residential Code*, as applicable, any~~ Any *additions* that do not constitute *substantial improvement* of the *existing structure* are not required to comply with the flood design requirements for new construction, provided that both of the following apply:
   4.1 The *addition* shall not create or extend a nonconformity of the *existing building* or structure with the flood-resistant construction requirements.
   4.2 The *lowest floor* of the *addition* shall be at or above the lower of the *lowest floor* of the *existing building* or structure or the *lowest floor* elevation required in Section 1612 of the *International Building Code* or Section R306 of the *International Residential Code*, as applicable.

CHAPTER 11
ADDITIONS

[BS] 1103.3 Flood hazard areas. *Additions* and *foundations* in *flood hazard areas* shall comply with the following requirements:

1. For horizontal *additions* that are structurally interconnected to the *existing building*:

   1.1. If the *addition* and all other proposed work, when combined, constitute *substantial improvement*, the *existing building* and the *addition* shall comply with Section 1612 of the *International Building Code*, or Section R306 of the *International Residential Code*, as applicable.

   1.2. If the *addition* constitutes *substantial improvement*, the *existing building* and the *addition* shall comply with Section 1612 of the *International Building Code*, or Section R306 of the *International Residential Code*, as applicable.

   1.3. If the *addition* does not constitute *substantial improvement*, the *addition* is not required to comply with the flood design requirements for new construction, provided that both of the following apply:

      1.3.1. The *addition* shall not create or extend any nonconformity of the *existing building* with the flood-resistant construction requirements.

      1.3.2. The *lowest floor* of the *addition* shall be at or above the lower of the *lowest floor* of the *existing building* or the *lowest floor* elevation required in Section 1612 of the *International Building Code*, or Section R306 of the *International Residential Code*, as applicable.

2. For horizontal *additions* that are not structurally interconnected to the *existing building*:

   2.1. The *addition* shall comply with Section 1612 of the *International Building Code*, or Section R306 of the *International Residential Code*, as applicable.

   2.2. If the *addition* and all other proposed work, when combined, constitute *substantial improvement*, the *existing building* and the *addition* shall comply with Section 1612 of the *International Building Code*, or Section R306 of the *International Residential Code*, as applicable.

3. For vertical *additions* and all other proposed work that, when combined, constitute *substantial improvement*, the *existing building* shall comply with Section 1612 of the *International Building Code*, or Section R306 of the *International Residential Code*, as applicable.

4. For a new foundation, replacement foundation or a foundation raised or extended upward, the foundation shall comply with Section 1612 of the *International Building Code,* or Section R306 of the *International Residential Code*, as applicable.

5. For existing buildings with slab-on-ground foundations, the buildings shall not be elevated on new, raised, extended, or replaced foundations unless the existing slabs are assessed in accordance with ACI 562 and, if required in accordance with the assessment, strengthened in accordance with ACI 562 and ACI 318 to meet the load requirements of Chapter 16 of the *International Building Code*, or Chapter 3 of the *International Residential Code*, as applicable.

Add new standard(s) as follows:

ACI

American Concrete Institute
38800 Country Club Drive
Farmington Hills, MI 48331-3439

318-19 Building Code Requirements for Structural Concrete and Commentary

EB52-25 Part I

EB52-25 Part II

IRC: BO102.7.1 (New), ACI Chapter 44 (New)

Proponents: Rebecca Quinn, RCQuinn Consulting, representing Association of State Floodplain Managers (rebecca@rcquinnconsulting.com); Chad Berginnis, representing Association of State Floodplain Managers (cberginnis@floods.org)

2024 International Residential Code

APPENDIX BO
EXISTING BUILDINGS AND STRUCTURES

SECTION BO102
COMPLIANCE

BO102.7 Flood hazard areas. Work performed in existing buildings located in a flood hazard area as established by Table R301.2 shall be subject to the provisions of Section R104.3.1.

Add new text as follows:

BO102.7.1 Elevation projects. Existing buildings in flood hazard areas with slab-on-ground foundations shall not be elevated on new, raised, extended, or replaced foundations unless the existing slabs are assessed in accordance with ACI 562 and, if required in accordance with the assessment, strengthened in accordance with ACI 562 and ACI 318 to meet the load requirements of Chapter 3.

Add new standard(s) as follows:

ACI

American Concrete Institute
38800 Country Club Drive
Farmington Hills, MI 48331

562-21 Assessment, Repair, and Rehabilitation of Existing Concrete Structures—Code Requirements

Reason:
All across the country, communities are seeing permit applications to raise existing buildings on foundations that comply with elevation and foundation requirements for construction in flood hazard areas. From a structural perspective, these projects are relatively straightforward when the existing foundations are perimeter walls, piers, piles, or columns. However, it is significantly more complicated when existing buildings have slab-on-ground foundations.

On-ground slabs are designed to be supported by underlying soils, so it's not a surprise that elevating buildings that are on existing slab foundations can be challenging. One method to elevate buildings on slabs is elevating the slab itself. These slabs would need to perform as elevated structural floor systems, which they were not necessarily originally designed to do. This proposal is intended to ensure that slabs are appropriately evaluated and reinforced, if necessary, as structural elements to resist flood loads and load combinations.

It should be the standard of care that contractors and design professionals perform evaluations of slab foundations as part of proposals to elevate buildings on those foundations. However, FEMA has reported on problems and failures of elevation projects when slabs are not evaluated and strengthened before raising. However, we're also aware that many slab-on-ground buildings have been successfully raised when assessments are performed prior to starting the elevation process, and when the assessments prompt strengthening. Citing the standard ACI 562 brings consistency to those assessments to determine what additional stiffening and/or strengthening of the now spanning structural slab is required to accommodate the required loads.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal would require that a specific set of standards be used to evaluate existing slabs when buildings on those slab foundations are proposed to be elevated and, if necessary, those slabs would need to be reinforced and strengthened in accordance with those standards. In order to meet the code requirement that buildings and structures be constructed to safely support all loads, a design professional or contractor should perform some type of evaluation of an existing slab foundation to determine whether the slab should be reinforced as part of a project to elevate-in-place or relocate the building. There is no added cost of construction for this proposal because this proposal simply specifies the consensus standards to accomplish

something they should already be doing. Not performing an evaluation is negligent and exposes the designer/builder to liability. Not adequately performing the evaluation could also add repair costs if the slab is elevated without reinforcement and subsequently cracks or fails.

Staff Analysis: Part I: The proposed referenced standard, ACI 318-19 Building Code Requirements for Structural Concrete and Commentary, is currently referenced in the IBC and IRC.

Part II: The proposed referenced standard, ACI 562-21 Assessment, Repair, and Rehabilitation of Existing Concrete Structures—Code Requirements, is currently referenced in the IEBC.

EB52-25 Part II

EB53-25

IEBC: [BS] 502.3, [BS] 502.4, [BS] 503.3, [BS] 503.11, [BS] 706.2, [BS] 805.2, [BS] 906.2, [BS] 1103.1, [BS] 1103.2

Proponents: Julie Furr, Smith Seckman Reid, Inc, representing Julie Furr, PE (jcfurr@ssr-inc.com); Kelly Cobeen, Wiss Janney Elstner Associates, representing Self (kcobeen@wje.com); David Bonowitz, representing David Bonowitz, S.E. (dbonowitz@att.net); Peter Somers, Magnusson Klemencic Associates, representing self (psomers@mka.com)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

Revise as follows:

[BS] 502.3 Existing structural elements carrying gravity load. Any existing gravity load-carrying structural element for which an *addition* and its related *alterations* cause an increase in design dead, live or snow load, including snow drift effects, of more than 5 percent shall be replaced or altered as needed to carry the gravity loads required by the *International Building Code* for new structures. Any existing gravity load-carrying structural element whose vertical load-carrying capacity is decreased as part of the *addition* and its related *alterations* shall be considered to be an altered element subject to the requirements of Section 503.3. Any existing element that will form part of the lateral load path for any part of the *addition* shall be considered to be an existing lateral load-carrying structural element subject to the requirements of Section 502.4 ~~502.3~~.

Exception: Buildings within the scope of *International Residential Code* Section R101.2 shall comply with this code or the *International Residential Code*. ~~Buildings of Group R occupancy with not more than five dwelling or sleeping units used solely for residential purposes where the *existing building* and the *addition* together comply with the conventional light frame construction methods of the *International Building Code* or the provisions of the *International Residential Code*.~~

[BS] 502.4 Existing structural elements carrying lateral load. Where the *addition* is structurally independent of the *existing structure*, existing lateral load-carrying structural elements shall be permitted to remain unaltered. Where the *addition* is not structurally independent of the *existing structure*, the lateral force-resisting system of the *existing structure* and its *addition* acting together as a single structure shall comply with Section 1609 of the *International Building Code* and with Section 304.3.1 of this code.

Exceptions:

1. Any existing lateral load-carrying structural element whose demand-capacity ratio with the *addition* considered is not more than 10 percent greater than its demand-capacity ratio with the *addition* ignored shall be permitted to remain unaltered. For purposes of calculating demand-capacity ratios, the demand shall consider applicable load combinations with design lateral loads or forces in accordance with Sections 1609 and 1613 of the *International Building Code*. For purposes of this exception, comparisons of demand-capacity ratios and calculation of design lateral loads, forces and capacities shall account for the cumulative effects of *additions* and *alterations* since original construction. When calculating demand-capacity ratios for wind, the date of original construction shall be permitted to be taken as the date of completion of a prior *addition*, *alteration* or *repair* in compliance with Section 1609 of the *International Building Code* or the code wind forces in effect at the time. When calculating demand-capacity ratios for earthquake, the date of original construction shall be permitted to be taken as the date of completion of a prior *addition*, *alteration* or *repair* in compliance with Section 304.3.1 or the full seismic forces in effect at the time.
2. Buildings within the scope of *International Residential Code* Section R101.2 shall comply with this code or the *International Residential Code*. ~~Buildings of Group R occupancy with not more than five dwelling or sleeping units used solely for residential purposes where the *existing building* and the *addition* together comply with the conventional light frame construction methods of the *International Building Code* or the provisions of the *International Residential Code*.~~

[BS] 503.3 Existing structural elements carrying gravity load. Any existing gravity load-carrying structural element for which an *alteration* causes an increase in design dead, live or snow load, including snow drift effects, of more than 5 percent shall be replaced or altered as needed to carry the gravity loads required by the *International Building Code* for new structures. Any existing gravity load-carrying structural element whose gravity load-carrying capacity is decreased as part of the *alteration* shall be shown to have the

capacity to resist the applicable design dead, live and snow loads including snow drift effects required by the *International Building Code* for new structures.

Exceptions:

1. Buildings within the scope of *International Residential Code* Section R101.2 shall comply with this code or the *International Residential Code.* ~~Buildings of Group R occupancy with not more than five dwelling or sleeping units used solely for residential purposes where the altered building complies with the conventional light frame construction methods of the *International Building Code* or the provisions of the *International Residential Code*.~~
2. Buildings in which the increased dead load is due entirely to the addition of a second layer of roof covering weighing 3 pounds per square foot (0.1437 kN/m^2) or less over an existing single layer of roof covering.

[BS] 503.11 Substantial structural alteration. Where the *work area* exceeds 50 percent of the building area and where work involves a *substantial structural alteration*, the lateral load-resisting system of the altered building shall satisfy the requirements of Section 1609 of the *International Building Code* and Section 304.3.2 of this code. Where the building is assigned to Seismic Design Category D or F, supports and attachments for nonstructural components required to serve any portion of the building with a use included in *Risk Category* IV shall comply with Section 1613 of the *International Building Code* or shall comply with ASCE 41 using an objective of Position Retention nonstructural performance with the BSE-1E earthquake hazard level.

Exceptions:

1. Buildings within the scope of *International Residential Code* Section R101.2 shall comply with this code or the *International Residential Code.* ~~Buildings of Group R occupancy with not more than five dwelling or sleeping units used solely for residential purposes that are altered based on the conventional light frame construction methods of the *International Building Code* or in compliance with the provisions of the *International Residential Code*.~~
2. Where the intended *alteration* involves structural components of the lowest story of a building, only the lateral load-resisting system above that story need not comply with this section.

[BS] 706.2 Addition or replacement of roofing or replacement of equipment. Any existing gravity load-carrying structural element for which an *alteration* causes an increase in design dead, live or snow load, including snow drift effects, of more than 5 percent shall be replaced or altered as needed to carry the gravity loads required by the *International Building Code* for new structures.

Exceptions:

1. Buildings within the scope of *International Residential Code* Section R101.2 shall comply with this code or the *International Residential Code.* ~~Buildings of Group R occupancy with not more than five dwelling or sleeping units used solely for residential purposes where the altered building complies with the conventional light frame construction methods of the *International Building Code* or the provisions of the *International Residential Code*.~~
2. Buildings in which the increased dead load is due entirely to the addition of a second layer of roof covering weighing 3 pounds per square foot (0.1437 kN/m^2) or less over an existing single layer of roof covering.

[BS] 805.2 Existing structural elements carrying gravity loads. Any existing gravity load-carrying structural element for which an *alteration* causes an increase in design dead, live or snow load, including snow drift effects, of more than 5 percent shall be replaced or altered as needed to carry the gravity loads required by the *International Building Code* for new structures. Any existing gravity load-carrying structural element whose gravity load-carrying capacity is decreased as part of the *alteration* shall be shown to have the capacity to resist the applicable design dead, live and snow loads, including snow drift effects, required by the *International Building Code* for new structures.

Exceptions:

1. Buildings within the scope of *International Residential Code* Section R101.2 shall comply with this code or the *International Residential Code.* ~~Buildings of Group R occupancy with not more than five dwelling or sleeping units used solely for residential purposes where the altered building complies with the conventional light frame construction methods of the *International Building Code* or the provisions of the *International Residential Code*.~~

2. Buildings in which the increased dead load is attributable to the addition of a second layer of roof covering weighing 3 pounds per square foot (0.1437 kN/m^2) or less over an existing single layer of roof covering.

[BS] 906.2 Existing structural elements resisting lateral loads. Where work involves a *substantial structural alteration*,the lateral load-resisting system of the altered building shall be shown to satisfy the requirements of Section 1609 of the *International Building Code* and Section 304.3.2 of this code. Where the building is assigned to Seismic Design Category D or F, supports and attachments for nonstructural components required to serve any portion of the building with a use included in *Risk Category* IV shall comply with Section 1613 of the *International Building Code* or shall comply with ASCE 41 using an objective of Position Retention nonstructural performance with the BSE-1E earthquake hazard level.

Exceptions:

1. Buildings within the scope of *International Residential Code* Section R101.2 shall comply with this code or the *International Residential Code*. ~~Buildings of Group R occupancy with not more than five dwelling or sleeping units used solely for residential purposes that are altered based on the conventional light-frame construction methods of the *International Building Code* or in compliance with the provisions of the *International Residential Code*.~~
2. Where the intended alteration involves only the lowest story of a building, structural components of the lateral load resisting system above that story need not comply with this section.

[BS] 1103.1 Additional gravity loads. Any existing gravity load-carrying structural element for which an *addition* and its related *alterations* cause an increase in design dead, live or snow load, including snow drift effects, of more than 5 percent shall be replaced or altered as needed to carry the gravity loads required by the *International Building Code* for new structures. Any existing gravity load-carrying structural element whose gravity load-carrying capacity is decreased as part of the *addition* and its related *alterations* shall be considered to be an altered element subject to the requirements of Section 805.2. Any existing element that will form part of the lateral load path for any part of the *addition* shall be considered to be an existing lateral load-carrying structural element subject to the requirements of Section 1103.2.

Exception: Buildings within the scope of *International Residential Code* Section R101.2 shall comply with this code or the *International Residential Code*. ~~Buildings of Group R occupancy with not more than five dwelling units or sleeping units used solely for residential purposes where the *existing building* and the *addition* together comply with the conventional light-frame construction methods of the *International Building Code* or the provisions of the *International Residential Code*.~~

[BS] 1103.2 Lateral force-resisting system. Where the *addition* is structurally independent of the *existing structure*, existing lateral load-carrying structural elements shall be permitted to remain unaltered. Where the *addition* is not structurally independent of the *existing structure*, the lateral force-resisting system of the *existing structure* and its *addition* acting together as a single structure shall comply with Section 1609 of the *International Building Code* and Section 304.3.1 of this code.

Exceptions:

1. Buildings within the scope of *International Residential Code* Section R101.2 shall comply with this code or the *International Residential Code*. ~~Buildings of Group R occupancy with not more than five dwelling or sleeping units used solely for residential purposes where the *existing building* and the *addition* comply with the conventional light-frame construction methods of the *International Building Code* or the provisions of the *International Residential Code*.~~
2. Any existing lateral load-carrying structural element whose demand-capacity ratio with the *addition* considered is not more than 10 percent greater than its demand-capacity ratio with the *addition* ignored shall be permitted to remain unaltered. For purposes of calculating demand-capacity ratios, the demand shall consider applicable load combinations with design lateral loads or forces in accordance with Section 1609of the *International Building Code* and Section 304.3.1 of this code*. For purposes of this exception, comparisons of demand-capacity ratios and calculation of design lateral loads, forces and capacities shall account for the cumulative effects of additions and alterations since original construction.*

When calculating demand-capacity ratios for wind, the date of original construction shall be permitted to be taken as the date of completion of a prior *addition*, alteration or *repair* in compliance with Section 1609 of the *International Building Code* or the code wind forces in effect at the time. When calculating demand-capacity ratios for earthquake, the date of original construction shall be permitted to be taken as the date of completion of a prior *addition*, *alteration* or *repair* in compliance with Section 304.3.1 or the full seismic forces in

effect at the time.

Reason: This proposal clarifies duplicative but not entirely identical language from the IEBC, that allows certain existing buildings to use the IRC instead of the IEBC. This simplifies its use and coordinates the IEBC exceptions that have been present since the 2018 edition. Chapter 4 contains similar exceptions which were more narrowly focused and applicable to seismic provisions not available in the IRC, so were intentionally left untouched by this proposal.

This coordination also removes the need to check two different codes to find the most suitable approach. This proposal acknowledges that, in general, if you're doing an existing building project in a small residential building – even an old or non-conforming one – you should just use the IRC. (This rationale will become even more compelling as the IRC develops its own existing building provisions in Appendix BO, formerly Appendix J.)

What about buildings that might qualify for these IEBC exceptions and are not eligible to use the IRC? Doesn't this proposal make compliance harder (or more expensive) for them? No, because these exceptions already require the building to be in compliance with applicable structural provisions of a code for new construction (the IRC or IBC), so the exception already requires as much or more work as the requirement it's meant to waive. Further, understanding that the IEBC exceptions were meant for typical wood-frame houses, any building not eligible for the IRC because of its size (a four-story dwelling?) or use (A, B, E, I, or other non-R occupancy) was not meant to be exempt in the first case. And what about buildings that are within the scope of the IRC but get bumped to the IBC for structural provisions because they're in high wind or high seismic areas? These buildings also lose no advantage, since they would not be triggered to use those IRC structural provisions anyway, owing to the IRC's general allowance for existing building projects that leave the building "no less compliant."

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

As noted in the reason statement, the revisions are clarifications and preserve the general allowance in Section 101.2 exception to use the IRC.

Staff Analysis: ADM1-25 Part I contains a related proposed revision to IEBC Section 101.2 that will be heard by the ADMIN committee. Similar exceptions to IEBC Section 101.2 are included in IBC Section 101.2, IFC Section 1001.1, IPC Section 101.2, IMC Section 101.2, and IFGC Section 101.2.

EB53-25

EB54-25

IEBC: [BS] 502.4, [BS] 503.4, [BS] 805.3, [BS] 1103.2

Proponents: Gwenyth Searer, Wiss, Janney, Elstner Associates, Inc., representing myself (gsearer@wje.com)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

Revise as follows:

[BS] 502.4 Existing structural elements carrying lateral load. Where the *addition* is structurally independent of the *existing structure*, existing lateral load-carrying structural elements shall be permitted to remain unaltered. Where the *addition* is not structurally independent of the *existing structure*, the lateral force-resisting system of the *existing structure* and its *addition* acting together as a single structure shall comply with Section 1609 of the *International Building Code* and with Section 304.3.1 of this code.

Exceptions:

1. Any existing lateral load-carrying structural element whose demand-capacity ratio with the *addition* considered is not more than 10 percent greater than its demand-capacity ratio with the *addition* ignored shall be permitted to remain unaltered. For purposes of calculating demand-capacity ratios, the demand shall consider applicable load combinations with design lateral loads or forces in accordance with Sections 1609 and 1613 of the *International Building Code*. For purposes of this exception, comparisons of demand-capacity ratios and calculation of design lateral loads, forces and capacities shall account for the cumulative effects of *additions* and *alterations* since original construction. When calculating demand-capacity ratios for wind, the date of original construction shall be permitted to be taken as the date of completion of a prior *addition*, *alteration* or *repair* that brought the structure into ~~in~~ compliance with Section 1609 of the *International Building Code* or the code wind forces in effect at the time. When calculating demand-capacity ratios for earthquake, the date of original construction shall be permitted to be taken as the date of completion of a prior *addition*, *alteration* or *repair* that brought the structure into ~~in~~ compliance with Section 304.3.1 or the full seismic forces in effect at the time.
2. Buildings of Group R occupancy with not more than five dwelling or sleeping units used solely for residential purposes where the *existing building* and the *addition* together comply with the conventional light-frame construction methods of the *International Building Code* or the provisions of the *International Residential Code*.

[BS] 503.4 Existing structural elements carrying lateral load. Except as permitted by Section 503.13, where the *alteration* increases design lateral loads, results in a prohibited structural irregularity as defined in ASCE 7, or decreases the capacity of any existing lateral load-carrying structural element, the lateral force-resisting system of the altered building or structure shall meet the requirements of Section 1609 of the *International Building Code* and Section 304.3.2 of this code.

Exceptions:

1. Any existing lateral load-carrying structural element whose demand-capacity ratio with the alteration considered is not more than 10 percent greater than its demand-capacity ratio with the *alteration* ignored shall be permitted to remain unaltered. For purposes of calculating demand-capacity ratios, the demand shall consider applicable load combinations with design lateral loads or forces in accordance with Section 1609 of the *International Building Code* and Section 304.3.1 or 304.3.2 of this code. The same methodology shall be used for the altered and unaltered structures. For purposes of this exception, comparisons of demand-capacity ratios and calculation of design lateral loads, forces and capacities shall account for the cumulative effects of additions and alterations since original construction. When calculating demand-capacity ratios for wind, the date of original construction shall be permitted to be taken as the date of completion of a prior *addition*, *alteration* or *repair* that brought the structure into ~~in~~ compliance with Section 1609 of the *International Building Code* or the code wind forces in effect at the time. When calculating demand-capacity ratios for earthquake, the date of original construction shall be permitted to be taken as the date of completion of a prior *addition*, *alteration* or *repair* that brought the structure into ~~in~~ compliance with Section 304.3.1 or Section 304.3.2, Item 1 or 3, or the full or reduced seismic forces in effect at the time.

2. Buildings in which the increase in the demand-capacity ratio is due entirely to the addition of rooftop-supported mechanical equipment individually having an operating weight less than 400 pounds (181.4 kg) and where the total additional weight of all rooftop equipment placed after initial construction of the building is less than 10 percent of the roof dead load. For purposes of this exception, “roof” shall mean the roof level above a particular story.
3. Increases in the demand-capacity ratio due to lateral loads from seismic forces need not be evaluated for the installation of rooftop *photovoltaic panel systems* where the additional roof dead load due to the system, including ballast where applicable, does not exceed 5 pounds per square foot (psf) (0.2394 kN/m^2) and does not exceed 10 percent of the dead load of the existing roof.

[BS] 805.3 Existing structural elements resisting lateral loads. Except as permitted by Section 805.4, where the *alteration* increases design lateral loads, or where the alteration results in prohibited structural irregularity as defined in ASCE 7, or where the *alteration* decreases the capacity of any existing lateral load-carrying structural element, the lateral force-resisting system of the altered building or structure shall meet the requirements of Section 1609 of the *International Building Code* and Section 304.3.2 of this code.

Exceptions:

1. Any existing lateral load-carrying structural element whose demand-capacity ratio with the *alteration* considered is not more than 10 percent greater than its demand-capacity ratio with the *alteration* ignored shall be permitted to remain unaltered. For purposes of calculating demand-capacity ratios, the demand shall consider applicable load combinations with design lateral loads or forces in accordance with Section 1609of the *International Building Code* and Section 304.3.1 or 304.3.2 of this code . The same methodology shall be used for the altered and unaltered structures.For purposes of this exception, comparisons of demand-capacity ratios and calculation of design lateral loads, forces and capacities shall account for the cumulative effects of *additions* and *alterations* since original construction. When calculating demand-capacity ratios for wind, the date of original construction shall be permitted to be taken as the date of completion of a prior *addition*, *alteration* or *repair* that brought the structure into ~~in~~ compliance with Section 1609 of the *International Building Code* or the code wind forces in effect at the time. When calculating demand-capacity ratios for earthquake, the date of original construction shall be permitted to be taken as the date of completion of a prior *addition*, *alteration* or *repair* that brought the structure into ~~in~~ compliance with Section 304.3.1 or 304.3.2 Item 1 or 3 or the full or reduced seismic forces in effect at the time.
2. Buildings in which the increase in the demand-capacity ratio is due entirely to the addition of rooftop-supported mechanical equipment individually having an operating weight less than 400 pounds (181.4 kg) and where the total additional weight of all rooftop equipment placed after initial construction of the building is less than 10 percent of the roof dead load. For purposes of this exception, “roof” shall mean the roof level above a particular story.
3. Increases in the demand-capacity ratio due to lateral loads from seismic forces need not be evaluated for the installation of rooftop *photovoltaic panel systems* where the additional roof dead load due to the system, including ballast where applicable, does not exceed 5 pounds per square foot (psf) (0.2394 kN/m^2) and does not exceed 10 percent of the dead load of the existing roof.

[BS] 1103.2 Lateral force-resisting system. Where the *addition* is structurally independent of the *existing structure*, existing lateral load-carrying structural elements shall be permitted to remain unaltered. Where the *addition* is not structurally independent of the *existing structure*, the lateral force-resisting system of the *existing structure* and its *addition* acting together as a single structure shall comply with Section 1609 of the *International Building Code* and Section 304.3.1 of this code.

Exceptions:

1. Buildings of Group R occupancy with not more than five dwelling or sleeping units used solely for residential purposes where the *existing building* and the *addition* comply with the conventional light-frame construction methods of the *International Building Code* or the provisions of the *International Residential Code*.

2. Any existing lateral load-carrying structural element whose demand-capacity ratio with the *addition* considered is not more than 10 percent greater than its demand-capacity ratio with the *addition* ignored shall be permitted to remain unaltered. For purposes of calculating demand-capacity ratios, the demand shall consider applicable load combinations with design lateral loads or forces in accordance with Section 1609of the *International Building Code* and Section 304.3.1 of this code*. For purposes of this exception, comparisons of demand-capacity ratios and calculation of design lateral loads, forces and capacities shall account for the cumulative effects of additions and alterations since original construction.*

When calculating demand-capacity ratios for wind, the date of original construction shall be permitted to be taken as the date of completion of a prior *addition*, alteration or *repair*that brought the structure into ~~in~~ compliance with Section 1609 of the *International Building Code* or the code wind forces in effect at the time. When calculating demand-capacity ratios for earthquake, the date of original construction shall be permitted to be taken as the date of completion of a prior *addition*, *alteration* or *repair* that brought the structure into ~~in~~ compliance with Section 304.3.1 or the full seismic forces in effect at the time.

Reason: Although the overall intent is to allow the clock to be "reset" with respect to cumulative changes if a prior addition, alteration, or repair complied with the wind or seismic provisions at the time (or current code); however, the wording of portions of these four provisions is not entirely clear. There appears to be a minor loophole in which one could have implemented a very small addition, alteration, or repair that was in compliance with the seismic requirements of the then-current code, but most of the structure was not improved, and that might arguably "reset the clock". It is doubtful this is the intent. Instead, it seems likely that the intent was to have only an addition, alteration, or repair that brought the whole structure into compliance with the wind or seismic provisions reset the clock.

Bibliography: "Evaluation of the Effects of Oakland's Earthquake Damage Repair Ordinance" by G.R. Searer, T.F. Paret, S.A. Freeman, and U.M., Gilmartin, pubished in the Proceedings of the 8th US Conference on Earthquake Engineering in San Francisco, California in April 2006.

Cost Impact: Increase

Estimated Immediate Cost Impact:

There is a small (likely very small) chance that someone might have taken advantage of these small loopholes. This change would head off that permissive interpretation and cause them to have to strengthen more members due to their proposed addition or alteration. So either the cost stays the same because the design professonal was always going to interpret the provisions according to the intent, or the cost increases due to the fact that the accidental loophole was closed. If the design professional was going to do something sneaky like add a small addition that complies with Section 1609 and then design a big repair, addition, or alteration that doesn't have to consider all of the other repairs, additions, or alterations that have occurred in the past, that tactic would be prohibited by this change. Although there have not been many studies that quantify the costs of upgrades of existing buildings, the proponent conducted a study of the Oakland Earthquake Damage Repair Ordinance that was implemented after the 1989 Loma Prieta Earthquake and found that repair+upgrade cost anywhere from 53 percent more to 3370 percent more, with several projects costing about 400 percent more, than if repair-only had been permitted. So for a project that would only address the damaged elements and cost, say $100,000, the repair+upgrade might cost $500,000. These are potentially substantial cost increases; however, the cost increases *associated with these loopholes* would be very rare due to a confluence of unlikely events or due to precluding a sneaky approach to avoid the intent of the trigger.

Estimated Immediate Cost Impact Justification (methodology and variables):

The study that quantified the cost differential of repair+upgrade compared to repair-only is this paper: "Evaluation of the Effects of the Oakland's Earthquake Damage Repair Ordinance" by G.R. Searer, T.F. Paret, S.A. Freeman, and U.M., Gilmartin, pubished in the Proceedings of the 8th US Conference on Earthquake Engineering in San Francisco, California in April 2006.

EB54-25

EB55-25

IEBC: 502.6, 1101.6

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

502.6 Enhanced classroom acoustics. In additions to Group E occupancies, enhanced classroom acoustics shall be provided in all classrooms ~~in the *addition*~~ with a volume of 20,000 cubic feet (565 m^3) or less. Enhanced classroom acoustics shall comply with the reverberation time in Section 808 of ICC A117.1.

1101.6 Enhanced classroom acoustics. In additions to Group E occupancies, enhanced classroom acoustics shall be provided in all classrooms ~~in the *addition*~~ with a volume of 20,000 cubic feet (565 m^3) or less. Enhanced classroom acoustics shall comply with the reverberation time in Section 808 of ICC A117.1.

Reason: There is a technical glitch for if the volume is applied to the addition, or to the classrooms. The provisions for acoustics in IBC Section 1207, IRBC 503.18, 506.4, 903.4, and 1011.4 all are applicable for classroom with a volume of 20,000 cubic feet. The size of addition is not relevant if it does not include classrooms.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).
BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is a clarification for where acoustic improvements are needed in an addition, not an increase in requirements.

EB56-25

IEBC: SECTION 503, SECTION 505, 503.21 (New), 505.1, 505.2, 505.3, 505.3.1, 505.4, SECTION 506, SECTION 504, 504.7 (New), [BE] 504.1, [BE] 504.1.1, [BE] 504.1.2, [BE] 504.1.3, [BE] 504.1.4, [BE] 504.2, [BE] 504.3, [BE] 504.4, [BE] 504.5

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

SECTION 503
ALTERATIONS

Delete without substitution:

~~SECTION 505~~
~~WINDOWS AND EMERGENCY ESCAPE OPENINGS~~

Add new text as follows:

503.21 Windows and emergency escape and rescue openings. Windows and emergency escape and rescue opening shall comply with this section.

Revise as follows:

~~**505.1**~~ **503.21.1 Replacement windows.** The installation or replacement of windows shall be as required for new installations.

~~**505.2**~~ **503.21.2 Window fall prevention on replacement windows.** In Group R-2 or R-3 buildings containing dwelling units, and one- and two-family dwellings and townhouses regulated by the *International Residential Code*, window opening control devices or other window fall prevention devices complying with ASTM F2090 shall be installed where an existing window is replaced and where all of the following apply to the replacement window:

1. The window is operable.
2. One of the following applies:
   2.1. The window replacement includes replacement of the sash and frame.
   2.2. The window replacement includes the sash only where the existing frame remains.
3. One of the following applies:
   3.1. In Group R-2 or R-3 buildings containing dwelling units, the bottom of the clear opening of the window opening is at a height less than 36 inches (915 mm) above the finished floor.
   3.2. In one- and two-family dwellings and townhouses regulated by the *International Residential Code*, the bottom of the clear opening of the window opening is at a height less than 24 inches (610 mm) above the finished floor.
4. The window will permit openings that will allow passage of a 4-inch-diameter (102 mm) sphere when the window is in its largest opened position.
5. The vertical distance from the bottom of the clear opening of the window opening to the finished grade or other surface below, on the exterior of the building, is greater than 72 inches (1829 mm).

Exception: Operable windows where the bottom of the clear opening of the window opening is located more than 75 feet (22 860 mm) above the finished grade or other surface below, on the exterior of the room, space or building, and that are provided with window fall prevention devices that comply with ASTM F2006.

~~505.3~~ 505.21.3 **Replacement window emergency escape and rescue openings.** Where windows are required to provide *emergency escape and rescue openings* in Group R-2 and R-3 occupancies and one- and two-family dwellings and townhouses regulated by the *International Residential Code,* replacement windows shall be exempt from the requirements of Section 1031.3 of the *International Building Code* and Section 319.2 of the *International Residential Code,* provided that the replacement window meets the following conditions:

1. The replacement window is the manufacturer's largest standard size window that will fit within the existing frame or existing rough opening. The replacement window shall be permitted to be of the same operating style as the existing window or a style that provides for an equal or greater window opening area than the existing window.
2. Where the replacement of the window is part of a *change of occupancy,* it shall comply with Section 1011.5.6.

~~505.3.1~~ 503.21.3.1 **Control devices.** Window opening control devices or fall prevention devices complying with ASTM F2090 shall be permitted for use on windows required to provide *emergency escape and rescue openings*. After operation to release the control device allowing the window to fully open, the control device shall not reduce the net clear opening area of the window unit. *Emergency escape and rescue openings* shall be operational from the inside of the room without the use of keys or tools.

~~505.4~~ 503.21.4 **Bars, grilles, covers or screens.** Bars, grilles, covers, screens or similar devices are permitted to be placed over *emergency escape and rescue openings*, bulkhead enclosure or window wells that serve such openings, provided all of the following conditions are met:

1. The minimum net clear opening size complies with the code that was in effect at the time of construction.
2. Such devices shall be releasable or removable from the inside without the use of a key, tool or force greater than that which is required for normal operation of the escape and rescue opening.
3. Where such devices are installed, they shall not reduce the net clear opening of the *emergency escape and rescue openings*.
4. Smoke alarms shall be installed in accordance with Section 907.2.11 of the *International Building Code*.

SECTION ~~506~~ 504
CHANGE OF OCCUPANCY

Delete without substitution:

~~SECTION 504~~
~~FIRE ESCAPES~~

Add new text as follows:

504.7 Fire escapes. Fire escapes shall comply with this section.

Revise as follows:

[BE] ~~504.1~~ 504.7.1 Where permitted. Fire escapes shall be permitted only as provided for in Sections ~~504.1.1~~504.7.1.1 through ~~504.1.4~~ 504.7.1.4 .

[BE] ~~504.1.1~~ 504.7.1.1 New buildings. Fire escapes shall not constitute any part of the required means of egress in new buildings.

[BE] ~~504.1.2~~ 504.7.1.2 Existing fire escapes. Existing fire escapes shall continue to be accepted as a component in the means of egress in *existing buildings* only.

[BE] ~~504.1.3~~ 504.7.1.3 New fire escapes. New fire escapes for *existing buildings* shall be permitted only where exterior stairways

cannot be utilized because of lot lines limiting stairway size or because of sidewalks, alleys or roads at grade level. New fire escapes shall not incorporate ladders or access by windows.

[BE] ~~**504.1.4**~~ **504.7.1.4 Limitations.** Fire escapes shall comply with this section and shall not constitute more than 50 percent of the required number of exits nor more than 50 percent of the required exit capacity.

[BE] ~~**504.2**~~ **504.7.2 Location.** Where located on the front of the building and where projecting beyond the building line, the lowest landing shall be not less than 7 feet (2134 mm) or more than 12 feet (3658 mm) above grade, and shall be equipped with a counterbalanced stairway to the street. In alleyways and thoroughfares less than 30 feet (9144 mm) wide, the clearance under the lowest landing shall be not less than 12 feet (3658 mm).

[BE] ~~**504.3**~~ **504.7.3 Construction.** The fire escape shall be designed to support a live load of 100 pounds per square foot (4788 Pa) and shall be constructed of steel or other *approved noncombustible materials*. Fire escapes constructed of wood not less than nominal 2 inches (51 mm) thick are permitted on buildings of Type V construction. Walkways and railings located over or supported by combustible roofs in buildings of Type III and IV construction are permitted to be of wood not less than nominal 2 inches (51 mm) thick.

[BE] ~~**504.4**~~ **504.7.4 Dimensions.** Stairways shall be not less than 22 inches (559 mm) wide with risers not more than, and treads not less than, 8 inches (203 mm) and landings at the foot of stairways not less than 40 inches (1016 mm) wide by 36 inches (914 mm) long, located not more than 8 inches (203 mm) below the door.

[BE] ~~**504.5**~~ **504.7.5 Opening protectives.** Doors and windows within 10 feet (3048 mm) of fire escape stairways shall be protected with $^3/_4$-hour opening protectives.

Exception: Opening protection shall not be required in buildings equipped throughout with an *approved* automatic sprinkler system.

Reason: The intent of this proposal is similar to the more extensive reordering proposed for Chapter 3 and 10. This follows the order of the IBC with the idea that this order is familiar and it will be easier for people to find requirements and use the IEBC.
Chapter 5 is basically divided into additions, alterations, changes of occupancy. Windows and EERO's should not be a separate section; 506.4 addressed EERO under COO. Fire escapes are typically required where the occupant load increases in a COO. Fire escapes should not be in a separate section, but under COO. There are other proposals to relocated these sections and matching sections in the work area method into Chapter 3. That is preferred. However, they should at least not be separate sections in Chapter 5.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is a reorganization of sections. There are no changes to requirements.

EB56-25

EB57-25

IEBC: 503.1.1 (New)

Proponents: Julie C. Furr, representing NCSEA Existing Building Committee (jcfurr@ssr-inc.com); Erik Madsen, representing NCSEA (emadsen@dci-engineers.com); Emily Guglielmo, representing NCSEA (eguglielmo@martinmartin.com)

2024 International Existing Building Code

Add new text as follows:

503.1.1 Photovoltaic panel systems. Roof structures that provide support for *photovoltaic panel systems* shall be shown to comply with or be altered to comply with Section 1607.14.3 of the *International Building Code*.

Reason: This proposal provides a pointer in the IEBC to current provisions in the IBC that give direction on how and when live load offsets are appropriate to use when installing photovoltaic systems. Unlike new construction that can be designed for all planned loads, the structural capacity of existing buildings is a fixed value. When new systems not considered in the original building design are installed, it is critical that the additional new load be properly accounted for to avoid adverse performance (deflection, ponding, etc) or localized failures of the structure.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This language points to an existing IBC section that already addresses live load offsets and does not impose new technical requirements.

EB58-25

IEBC: [BS] 503.11, [BS] 906.2

Proponents: Peter Somers, Magnusson Klemencic Associates, representing self (psomers@mka.com); Kelly Cobeen, Wiss Janney Elstner Associates, representing Self (kcobeen@wje.com); David Bonowitz, representing David Bonowitz, S.E. (dbonowitz@att.net)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

Revise as follows:

[BS] 503.11 Substantial structural alteration. Where the *work area* exceeds 50 percent of the building area and where work involves a *substantial structural alteration*, the lateral load-resisting system of the altered building shall satisfy the requirements of Section 1609 of the *International Building Code* and Section 304.3.2 of this code. Where the building is assigned to Seismic Design Category D or F, supports and attachments for nonstructural components required to serve any portion of the building with a use included in *Risk Category* IV shall comply with Section 1613 of the *International Building Code* or shall comply with ASCE 41 using an objective of Position Retention nonstructural performance with the BSE-1E earthquake hazard level.

Exceptions:

1. Buildings of Group R occupancy with not more than five dwelling or sleeping units used solely for residential purposes that are altered based on the conventional light-frame construction methods of the *International Building Code* or in compliance with the provisions of the *International Residential Code*.
2. Where the intended *alteration* involves only ~~structural components of~~ the lowest story of a building assigned to *Risk Category* I, II, or III, ~~only~~ structural components of the lateral load-resisting system above that story need not comply with this section. This exception shall not be used to reduce or exempt any of the work required by Sections 503.6 through 503.10 or any of the work required by Section 503.12.

[BS] 906.2 Existing structural elements resisting lateral loads. Where work involves a *substantial structural alteration*,the lateral load-resisting system of the altered building shall be shown to satisfy the requirements of Section 1609 of the *International Building Code* and Section 304.3.2 of this code. Where the building is assigned to Seismic Design Category D or F, supports and attachments for nonstructural components required to serve any portion of the building with a use included in *Risk Category* IV shall comply with Section 1613 of the *International Building Code* or shall comply with ASCE 41 using an objective of Position Retention nonstructural performance with the BSE-1E earthquake hazard level.

Exceptions:

1. Buildings of Group R occupancy with not more than five dwelling or sleeping units used solely for residential purposes that are altered based on the conventional light-frame construction methods of the *International Building Code* or in compliance with the provisions of the *International Residential Code*.
2. Where the intended alteration involves only the lowest story of a building assigned to *Risk Category* I, II, or III, structural components of the lateral load resisting system above that story need not comply with this section. This exception shall not be used to reduce or exempt any of the work required by Section 706.3.1, Section 706.3.2 or Sections 906.4 through 906.7.

Reason: This proposal clarifies the application of an exception that applies where a substantial structural alteration (SSA) involves only the lowest story of a building. It confirms that the intent of the exception is to waive the full-building upgrade triggered by the SSA itself, but not to waive other proactive risk reduction measures that might apply to the same project. The proposal has matching parts for the Prescriptive and Work Area methods.

The limitation of Exception 2 to Risk Category I – III serves two purposes. First, it clarifies the intended scope of Exception 2, which is not meant to override Section 503.5, which already triggers a full building retrofit for SDC F (i.e. RC IV with high seismicity) with a major alteration. Second, it clarifies the intended scope of Exception 2, which is not meant to override the part of the provision dealing with

nonstructural components in RC IV.

The limitation where Exception 2 conflicts with other triggers clarifies several issues:

It clarifies the intended scope of Exception 2, which is not meant to override triggered roof-level improvements. Without this clarification, there would be a fair question as to whether triggered roof-level work is actually required. This clarification is necessary for two cases (though both are admittedly limited): First, a major (or Level 3) alteration with substantial structural alteration within the first story. This level of work should trigger the following improvements above:a) rigid wall-flexible diaphragm wall anchorage triggered by major alteration in SDC C-F (Sec 503.7 or 906.4); b) URM wall anchors at floor and roof triggered by major alteration in SDC C-F (Sec 503.8 or 906.5); c) URM parapets triggered by major alteration in SDC C-F (Sec 503.9 or 906.6); and d) URM partition bracing triggered by major alteration in SDC C-F (Sec 503.10 or 906.7). Second, a major (or Level 3) alteration with substantial structural alteration within the first story, together with significant reroofing on the same permit. This level of work should trigger the following improvements above: a) URM parapets in SDC D-F (Sec 503.6 or 706.3.1); b) Roof strengthening for wind where the basic wind speed > 130 mph (Sec 503.12 or 706.3.2).

Notes for reference:

- Exception 2 is already limited in its application. Since 503.11 already presumes a work area greater than 50%, then if the intended work involves only the first story, Exception 2 would already only waive work in the upper story of a 2-story building.
- Per the IBC, a “story” goes from the upper surface of a given floor to the upper surface of the floor above. Thus, a floor diaphragm & floor framing are part of the story below. So, Exception 2 does not exempt the diaphragm above the lowest story.

As background, we note that these sections and exceptions were revised for the 2024 IEBC by proposals EB15-22, which made editorial improvements, and EB66-22, which added the sentence about SDC D & F. SCSC was the proponent for both.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

Will not increase costs, assuming code users have been applying Exception 2 as intended relative to the other related IEBC sections (eg 503.5 etc).

EB58-25

EB59-25

IEBC: [BS] 503.12, [BS] 706.3.2

Proponents: Julie C. Furr, representing NCSEA Existing Building Committee (jcfurr@ssr-inc.com); Emily Guglielmo, representing NCSEA (eguglielmo@martinmartin.com)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

Revise as follows:

[BS] 503.12 ~~Roof diaphragms~~ Roofs resisting wind uplift loads in high-wind regions. Where the intended *alteration* requires a permit for *reroofing* and involves removal of roofing materials from more than 50 percent of the ~~roof diaphragm of a building or section~~ total area of the roof or from more than 50 percent of a structurally independent section of the roof of a building located where the basic wind speed, *V*, is greater than 130 mph (58 m/s) in accordance with Figure 1609.3(2) of the *International Building Code*, ~~roof diaphragms,~~ the connections of the roof ~~diaphragm to roof framing members, and roof-to-wall connections~~ deck to its supports within the reroofing area shall be evaluated for the wind uplift loads specified in Section 1609 of the *International Building Code*~~, including wind uplift~~. If the ~~diaphragms and~~ connections located within the reroofing area in their current condition are not capable of resisting 75 percent of those wind loads, they shall be replaced or strengthened in accordance with the loads specified in Section 1609 of the *International Building Code*.

Exception: Buildings that have been demonstrated to comply with the wind load provisions in ASCE 7—88 or later editions.

[BS] 706.3.2 ~~Roof diaphragms~~ Roofs resisting wind uplift loads in high-wind regions. Where roofing materials are removed from more than 50 percent of the total area of the roof or from more than 50 percent of a structurally independent section of the roof ~~diaphragm or section~~ of a building located where the basic wind speed, *V*, is greater than 130 mph (58 m/s), in accordance with Figure 1609.3(2) of the *International Building Code*, ~~roof diaphragms,~~ connections of the roof deck to its supports located within the reroofing area ~~diaphragm to roof framing members, and roof-to-wall connections~~ shall be evaluated for the wind uplift loads specified in the *International Building Code*~~, including wind uplift~~. If the ~~diaphragms and~~ connections in their current condition are not capable of resisting 75 percent of those wind loads, they shall be replaced or strengthened in accordance with the loads specified in the *International Building Code.*

Exception: Buildings that have been demonstrated to comply with the wind load provisions in ASCE 7—88 or later editions.

Reason: A provision in the first edition of the IEBC, published in 2003, required that when more than 50% of the roofing materials were removed from a roof diaphragm, the integrity of the diaphragm was to be evaluated, and if found to be deficient because of insufficient or deteriorated connections, such connections were to be provided or replaced. This provision appears to have been originally intended to address obviously deficient or deteriorated connections based on a visual observation of the diaphragm's top surface only; deficiencies or deterioration beyond this could not be observed or easily remedied in the relatively short period of time available between removal and replacement of a roofing system. Our inquiries to the International Code Council Technical Services indicated that the committee responsible for drafting this original provision was focused on connections, which they believed were often the cause of failures in high winds; however there were no meeting minutes or other written records that correlated the development of this original provision to any studies or documentation of any structural failures, including roof diaphragm failures.

This original provision changed dramatically in the 2009 IEBC requiring an evaluation that goes far beyond the integrity of only the diaphragm connectors, to include an evaluation of the entire diaphragm. In most cases, the evaluation of an existing roof diaphragm is challenging because most of the structure to be evaluated is concealed. A diaphragm evaluation conforming to this and/or the current provision could involve the following: 1) removal of all existing roofing down to the structural diaphragm for observation and, except where drawings are available and sufficiently detailed, collection of data to support the structural analysis; 2) engineering calculations, which cannot be performed extemporaneously in the field, evaluating the diaphragm and connection strengths to resist the prescribed design wind forces; 3) installation of temporary protection for the roof in anticipation of the possibility of resulting structural retrofit work; 4) both demobilization and subsequent remobilization of the roofing crew; 5) design and permitting of any necessary structural retrofit work; 6) potentially hiring a subcontractor capable of installing the necessary structural retrofits; and 7) resuming installation of the replacement roofing system. (It is significant to note that the code change proposal upon which the revisions to this 2009 IEBC provision were based

did not reference any studies, reports, investigations, etc. documenting diaphragm failures. This code change proposal also stated it would not increase the cost of construction, which appears to have been a gross misrepresentation.)

This provision has become onerous to many building owners trying to maintain and protect their buildings from the weather. Even in those cases where the evaluation indicates that the existing diaphragm possesses the strength required to resist the code-prescribed loads, the costs associated with the evaluation and roofing delays alone, without the need for any structural retrofits, can be substantial and can result in significant increases in costs for the routine exercise of reroofing. And where structural upgrades to a roof diaphragm are found to be necessary, the additional costs associated with the evaluation and retrofits may put the total cost for the project beyond the budget of the building owner. Where this occurs, not being able to reroof the building could lead to deterioration related to a breached roofing envelope resulting in the need for additional expenditures, both structural and non-structural. Some jurisdictions in high wind areas have deleted this provision and others have amended it to only consider the effects of wind uplift.

Wind can and does cause structural damage to buildings due to shortcomings in the original codes, problems with the design, construction defects, or some combination of these factors. However, the safety and sufficiency of existing structures are only rarely revisited unless significant damage has occurred or if a proposed structural alteration or occupancy change triggers compliance with the provisions for new structures. One such instance is that addressed in IEBC Sections 503.6 and 706.3.1; the requirement that unreinforced masonry (URM) parapets be braced when reroofing buildings in high seismic regions. This provision addresses an exceptional hazard demonstrated by repeated poor performance, arguably justifying the imposition of costs on a building owner to abate a significant latent danger to the public. To justify the high costs of diaphragm evaluations and upgrades, there should be a commensurate extraordinary risk from wind-related diaphragm vulnerabilities. Such vulnerabilities may be regional, such as the URM parapet provision that only applies in Seismic Design Categories D through F, or they could be limited to regions or building types where extraordinary vulnerabilities have been observed. However, our research has revealed that there is no evidence of damage to roof diaphragms or that roof diaphragms exhibit extraordinary vulnerabilities in buildings subjected to high wind loads. Factory Mutual (FM), formerly known as FM Global, is an American mutual insurance company with offices worldwide that specializes in loss prevention. FM has extensive loss data over many years and has indicated that most of their loss experience for roofs in high wind regions is primarily due to uplift on components and cladding. FM claims that during a windstorm, damage to the building's structural frame seldom occurs. They have experienced very few if any losses related to load transfer through diaphragms or any portion of the primary structure for that matter with a few exceptions. The costliest impact of these storms is damage that results when a building envelope is torn open, allowing wind and rain into the building. Keeping the roof deck fastened during a windstorm is of utmost importance, for once it is breached, positive pressures can be created within the building envelope to further increase the total wind uplift load on the roof as well.

The requirement that a building undergoes a diaphragm evaluation, involving a significant investigative and analytical effort by an engineer with the possibility of costly structural upgrades, is an extraordinary burden that should only be justifiable based on a commensurately extraordinary hazard. Otherwise, it is logical, appropriate, and consistent with longstanding engineering practice to let grandfathered structures stand unaffected by the increasingly complex regulations governing new structures. Retroactive upgrades are an appropriate tool when the costs of inaction definitively outweigh the costs of action. But that burden should be limited to where there is sufficient evidence of major structural concern.

This code change proposal is focused on the true hazard of wind uplift to building roofs in high wind regions, particularly to roof edges and corners where the uplift can be highest. Upon removal of the existing roofing materials, the roof deck and its connections to the framing can often be readily observed, assessed and, if required, remediated to resist the code-required wind uplift design forces at a reasonable cost to the building owner. The proposal also clarifies the area of evaluation and potential remediation as the area where roofing materials are removed. This proposal rescinds the current requirements pertaining to the evaluation and potential upgrade of roof diaphragms in high wind regions, for which there is no historical evidence substantiating the existence of extraordinary vulnerabilities in these structural components.

This code change proposal also recommends replacing the term "roof diaphragm" with "roof deck" as not all buildings have roof diaphragms. Metal buildings with standing seam metal roof decks typically rely on steel-rod cross braces in the plane of the roof to resist in-plane wind loads. By using the term "roof diaphragm" these type buildings would be excluded from the provision allowing the most critical hazard of roof deck attachment to resist wind uplift to not be addressed.

Bibliography: Provisions from the 2003 IEBC

507.3 Roof diaphragm. Where roofing materials are removed from more than 50 percent of the roof diaphragm of a building or section of a building where the roof diaphragm is a part of the main windforce-resisting system the integrity of the roof diaphragm shall be evaluated and if found deficient because of insufficient or deteriorated connections, such connections shall be provided or

replaced.**[BS]ROOF DECK.** The flat or sloped surface constructed on top of the exterior walls of a building or other supports for the purpose of enclosing the story below, or sheltering an area, to protect it from the elements, not including its supporting members or vertical supports.

Cost Impact: Decrease

Estimated Immediate Cost Impact:

$0.00 by limiting this section to uplift only and not including diaphragms.

Estimated Immediate Cost Impact Justification (methodology and variables):

Extensive field investigation and modification of structural connections has been eliminated from the scope of work.

EB59-25

EB60-25

IEBC: [BS] 503.13, [BS] 805.4

Proponents: Gwenyth Searer, Wiss, Janney, Elstner Associates, Inc., representing myself (gsearer@wje.com)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

Revise as follows:

[BS] 503.13 Voluntary structural ~~lateral force-resisting~~ system alterations. Structural alterations that are intended exclusively to improve the structural ~~lateral force-resisting~~ system and are not required by other sections of this code shall not be subject to the structural requirements of Section 503 , provided that all of the following apply:

1. With the *alteration* complete, the capacity of existing structural systems to resist forces is not reduced.
2. New structural elements are detailed and connected to existing or new structural elements as required by the selected design criteria.

   Exception: New lateral force-resisting systems designed in accordance with the *International Building Code* are permitted to be of a type designated as "Ordinary" or "Intermediate" where ASCE 7 Table 12.2-1 states these types of systems are not permitted.

3. Supports and attachments for nonstructural elements removed and reinstalled to facilitate the work comply with the *International Building Code* for new construction.
4. The *alterations* do not create a structural irregularity as defined in ASCE 7 or make an existing structural irregularity more severe.

   Exception: Condition 4 need not be satisfied where the work complies with Section 304.3.2, Item 3.

[BS] 805.4 Voluntary structural ~~lateral force-resisting~~ system alterations. Structural *alterations* that are intended exclusively to improve the structural ~~lateral force-resisting~~ system and are not required by other sections of this code shall not be subject to the structural requirements of this chapter or Chapter 7, provided that the following conditions are met:

1. With the *alteration* complete, the capacity of existing structural systems to resist forces is not reduced.
2. New structural elements are detailed and connected to existing or new structural elements as required by the selected design criteria.

   Exception: New lateral force-resisting systems designed in accordance with the *International Building Code* are permitted to be of a type designated as "Ordinary" or "Intermediate" where ASCE 7 Table 12.2-1 states these types of systems are not permitted.

3. Supports and attachments for nonstructural elements removed and reinstalled to facilitate the work comply with the *International Building Code* for new construction.
4. The *alterations* do not create a structural irregularity as defined in ASCE 7 or make an existing structural irregularity more severe.

   Exception: Condition 4 need not be satisfied where the work complies with Section 304.3.2 Item 3.

Reason: Only voluntary improvements in the lateral force-resisting system are currently encouraged by Sections 503.13 and 805.4. This does not make sense. A building owner may want to voluntarily strengthen the roof framing of their building to be able to resist snow loads or reduce ponding or to better resist dead loads (e.g., an older bowstring truss). They may want to voluntarily strengthen or stiffen their floor framing to reduce deflection or vibrations. They may want to voluntarily strengthen their building against tornado uplift or flood

loads.

This change encourages voluntary structural strengthening of all parts of buildings, not just the lateral force-resisting system of the buildings. The "do no harm" approach to seismic strengthening has been quite successful. Voluntary strengthening of other components of the structural stystem should also be permitted as long as it does no harm.

Cost Impact: Decrease

Estimated Immediate Cost Impact:

This change is permissive, and it gives owners options that they did not have before. Consequently, it will either result in no change in the cost of a project, or it will decrease the cost of voluntary improvements in the structural systems of buildings. Given that design professionals charge several hundred dollars an hour, having a reduced design effort can easily save thousands of dollars in design fees for smaller projects (e.g., reduction in design effort of 20 hours x $250/hour = $5,000) and tens of thousands of dollars in design fees for larger projects (e.g., reduction in design effort of 100 hours x $250/hour = $25,000). And if the scope of work for a typical retrofit project can be reduced by even a few percentage points, significant savings can be achieved -- on the order of thousands of dollars for small projects (e.g., $50,000 project x 5% savings = $2,500) to potentially tens or hundreds of thousands of dollars (e.g., $10,000,000 project x 5% savings = $500,000 savings), depending on the scope of the project, the purpose of the work, and how much additional work need not be performed due to relaxing the requirements for voluntary improvements to the structural systems of buildings.

One could also back into possible project cost savings by using the design fees that are saved (which seem pretty reasonable) and then converting the saved design fees to an equivalent project cost (i.e., using an approximate conversion rate that very conservatively assumes design fees are roughly 20 percent of the project cost). For example, if the design fees saved are just $5,000, that could equate to a scope reduction of approximately $5,000 / (0.15) = $25,000.

Estimated Immediate Cost Impact Justification (methodology and variables):

The fact that this proposal will decrease costs is a no-brainer. The possible savings presented here are based on my own experience and knowledge, and I have attempted to bound the possible savings using different hypothetically-sized scopes. Variables include the cost of materials, the cost of labor, the complexity and nature of the work being performed, the work that need not be performed if this proposal passes, and the amount of reduced design effort associated with being allowed to target exactly what is desired to be targeted and nothing more, just like is permitted with voluntary seismic strengthening.

EB60-25

EB61-25

IEBC: [BS] 503.13, [BS] 805.4

Proponents: Peter Somers, Magnusson Klemencic Associates, representing self (psomers@mka.com); Kelly Cobeen, Wiss Janney Elstner Associates, representing Self (kcobeen@wje.com)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

Revise as follows:

[BS] 503.13 Voluntary structural ~~lateral force-resisting system~~ alterations. Voluntary ~~S~~structural alterations that are intended exclusively to improve resistance to snow, wind, rain, earthquake, atmospheric ice or tsunami loads ~~the lateral force-resisting system~~ and are not required by other sections of this code ~~shall~~ need not meet the requirements of *International Building Code* Sections 1608, 1609, 1611, 1613, 1614 or 1615 nor ~~not~~ be subject to the structural requirements of Section 503 , provided that all of the following apply:

1. With the structural *alteration* complete, the capacity of existing structural systems to resist forces is not reduced.
2. New structural elements are detailed and connected to existing or new structural elements as required by the selected design criteria.

   Exception: New lateral force-resisting systems designed in accordance with the *International Building Code* are permitted to be of a type designated as "Ordinary" or "Intermediate" where ASCE 7 Table 12.2-1 states these types of systems are not permitted.

3. Supports and attachments for nonstructural elements removed and reinstalled to facilitate the work comply with the *International Building Code* for new construction.
4. The structural *alterations* do not create a structural irregularity as defined in ASCE 7 or make an existing structural irregularity more severe.

   Exception: Condition 4 need not be satisfied where the work complies with Section 304.3.2, Item 3.

Where the *code official* determines the proposed voluntary structural alterations for structures in flood hazard areas are *substantial improvement*, the requirements of Section 1612 of the IBC, or Section R322 of the IRC, as applicable, shall apply.

[BS] 805.4 Voluntary structural ~~lateral force-resisting system~~ alterations. Voluntary ~~S~~structural *alterations* that are intended exclusively to improve resistance to snow, wind, rain, earthquake, atmospheric ice or tsunami loads ~~the lateral force-resisting system~~ and are not required by other sections of this code ~~shall~~need not meet the requirements of *International Building Code* Sections 1608, 1609, 1611, 1613, 1614 or 1615 nor ~~not~~ be subject to the structural requirements of this chapter or Chapter 7, provided that the following conditions are met:

1. With the structural *alteration* complete, the capacity of existing structural systems to resist forces is not reduced.
2. New structural elements are detailed and connected to existing or new structural elements as required by the selected design criteria.

   Exception: New lateral force-resisting systems designed in accordance with the *International Building Code* are permitted to be of a type designated as "Ordinary" or "Intermediate" where ASCE 7 Table 12.2-1 states these types of systems are not permitted.

3. Supports and attachments for nonstructural elements removed and reinstalled to facilitate the work comply with the *International Building Code* for new construction.

4. The structural *alterations* do not create a structural irregularity as defined in ASCE 7 or make an existing structural irregularity more severe.

   Exception: Condition 4 need not be satisfied where the work complies with Section 304.3.2 Item 3.

Where the *code official* determines the proposed voluntary structural alterations for structures in flood hazard areas are *substantial improvement*, the requirements of Section 1612 of the IBC, or Section R322 of the IRC, as applicable, shall apply.

Reason: The language in Section 503.13 (and later matched in Section 806.4) addressing "Voluntary lateral force-resisting system alterations" was first introduced in the 1994 UBC. Since then, in spite of periodic updates to the language, the concept at the heart of this section has remained: to encourage voluntary partial retrofits to increase the resilience of the existing building stock. This language is used to permit a partial retrofit scope to address one or more specific vulnerabilities (soft story, cripple wall, etc.) and to retrofit to a level lower the full code forces when this is found to be more practical. Meanwhile, design for environmental loads has undergone significant development in ASCE 7 as well as the IBC and IRC, broadening the environmental loads and resulting effects for which voluntary retrofit might be provided. This proposal updates the terminology to include the broader scope of environmental loads addressed in ASCE 7 and the broader scope of voluntary retrofit measures that could be implemented. This is intended to include a broad range of measures including such items as hurricane clips to improve roof framing resistance to wind or tornado uplift, bracing on nonstructural components, and glazing improvements for wind or seismic loading. This language is also intended to waive mandatory compliance with Chapter 3 full seismic forces or reduced seismic forces, allowing the structural loads to be set by the owner's retrofit criteria.

FEMA publications very broadly encourage voluntary partial retrofit against environmental hazards including seismic, wind, flood, tsunami, etc. A partial list of FEMA documents that support partial retrofit includes:

FEMA P-807 - Seismic Evaluation and Retrofit of Multi-Unit Wood-Frame Buildings With Weak First Stories.

FEMA P-807-1 - Guidance and Recommendations for the Seismic Evaluation and Retrofit of Multi-Unit Wood-Frame Buildings with Weak First Stories

FEMA P-1100 - Vulnerability-Based Seismic Assessment and Retrofit of One- and Two-Family Dwellings

FEMA P-232 – Homebuilders' Guide to Earthquake Resistant Design and Construction

ICSSC RP10 - Standards of Seismic Safety for Existing Federally Owned and Leased Buildings ICSSC Recommended Practice 10 (RP 10-22). Section 1.11 specifically recognizes the ability to perform voluntary partial retrofit, using wording that largely mirrors the language used in the IEBC.

Other documents that support partial retrofit include: ASCE 41 Tier 2 retrofit provisions.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal is at most cost-neutral and could result in cost decreases, since it will give more flexibility in the scope of voluntary environmental load improvements, thereby making achieving improved structural performance more cost effective and encouraging broader implementation of voluntary improvements. By eliminating the potential for additional structural scope, often unrelated to the intended work, that could be triggered by a voluntary improvement project, the proposal could reduce construction costs. If a given project would not have had any other triggered structural scope anyway, then this proposal is cost-neutral.

EB61-25

EB62-25

IEBC: [BS] 503.13, [BS] 805.4

Proponents: Nathalie Boeholt, Seattle Dept. of Construction and Inspections (SDCI), representing Washington Association of Building Officials Technical Code Development Committee (WABO TCD) (nathalie.boeholt@seattle.gov); Julius Carreon, City of Bellevue, representing Washington Association of Building Officials Technical Code Development Committee (jcarreon@bellevuewa.gov); Micah Chappell, Seattle Dept. of Construction and Inspections (SDCI), representing Washington Association of Building Officials Technical Code Development Committee (WABO TCD) (micah.chappell@seattle.gov)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

Revise as follows:

[BS] 503.13 Voluntary lateral force-resisting system alterations. Structural alterations that are intended exclusively to improve the lateral force-resisting system and are not required by other sections of this code shall not be subject to the structural requirements of Section 503 , provided that all of the following apply:

1. With the *alteration* complete, the capacity of existing structural systems to resist forces is not reduced.
2. New structural elements are detailed and connected to existing or new structural elements as required by the selected design criteria.

   2.1. Where approved, new lateral force-resisting systems are permitted to be of a type designated as "Ordinary" or "Intermediate" where ASCE 7 Table 12.2-1 states these types of systems are not permitted provided that both of the following apply:

   2.1.1. The selected design criteria is the *International Building Code*.

   2.1.2 The new "Ordinary" or "Intermediate" system provides deformation compatibility with the existing lateral force-resisting system.

   ~~Exception:~~ ~~New lateral force-resisting systems designed in accordance with the *International Building Code* are permitted to be of a type designated as "Ordinary" or "Intermediate" where ASCE 7 Table 12.2-1 states these types of systems are not permitted.~~

3. Supports and attachments for nonstructural elements removed and reinstalled to facilitate the work comply with the *International Building Code* for new construction.
4. The *alterations* do not create a structural irregularity as defined in ASCE 7 or make an existing structural irregularity more severe.

   Exception: Condition 4 need not be satisfied where the work complies with Section 304.3.2, Item 3.

[BS] 805.4 Voluntary lateral force-resisting system alterations. Structural *alterations* that are intended exclusively to improve the lateral force-resisting system and are not required by other sections of this code shall not be subject to the structural requirements of this chapter or Chapter 7, provided that the following conditions are met:

1. With the *alteration* complete, the capacity of existing structural systems to resist forces is not reduced.

2. New structural elements are detailed and connected to existing or new structural elements as required by the selected design criteria.

   2.1. Where approved, new lateral force-resisting systems are permitted to be of a type designated as "Ordinary" or "Intermediate" where ASCE 7 Table 12.2-1 states these types of systems are not permitted provided that both of the following apply:

      2.1.1. The selected design criteria is the *International Building Code*.

      2.1.2. The new "Ordinary" or "Intermediate" system provides deformation compatibility with the existing lateral force-resisting system.

   ~~**Exception:** New lateral force-resisting systems designed in accordance with the *International Building Code* are permitted to be of a type designated as "Ordinary" or "Intermediate" where ASCE 7 Table 12.2-1 states these types of systems are not permitted.~~

3. Supports and attachments for nonstructural elements removed and reinstalled to facilitate the work comply with the *International Building Code* for new construction.

4. The *alterations* do not create a structural irregularity as defined in ASCE 7 or make an existing structural irregularity more severe.

   Exception: Condition 4 need not be satisfied where the work complies with Section 304.3.2 Item 3.

Reason: Sub-section 2 of sections 503.13 and 805.4 was changed in the last code cycle (with EB70-22) to clarify that when the selected design criteria is the IBC, regardless of the force level used, and under certain conditions, there can be flexibility with the type of lateral force-resisting system used to supplement or replace inadequate lateral systems in an existing building. EB70-22 was approved as submitted at the Committee Action Hearings (vote 10-2).

Edits were proposed during the Public Comment Hearings that improved this section based on comments from the committee, but they were unfortunately disapproved based on confusing arguments presented during the public hearing. This version is better, it addresses the following comments from the committee:

Comment 1: "This should be part of the paragraph and not be an exception."

- This proposal moves the text out of the exception into the text of sub-section 2.

Comment 2: "This proposal is too broad."

- This proposal adds "where approved" in sub-section 2.1 which indicates that approval by the code official is required. This gives a chance to the code official to review and determine if the proposal is reasonable.
- This proposal adds sub-section 2.1.2 as a criterion for when this flexibility can be used. It clarifies that the purpose is to provide deformation compatibility with an existing structure that would likely not be allowed in today's codes due to its low ductility.

This proposal addresses the committee comments and adds clarity, it does not change the technical intent.

Note that EB70-22, as modified by this proposal (corresponding to the PCH proposal), was adopted in the 2021 Washington State Existing Building Code.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

No cost impact for construction, this is an editorial change to add clarity to the code language. See reason statement.

EB62-25

EB63-25 Part I

IEBC: [A] 106.2.1, 503.16, 503.16.1, 503.17, 503.18, 503.20, 506.6

Proponents: Grant Ullrich, Chair, representing ICC Adaptive Reuse Working Group (grant.ullrich@cityofchicago.org); Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

THIS IS A 2 PART CODE CHANGE. PART I WILL BE HEARD BY THE IEBC CODE COMMITTEE. PART II WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THESE COMMITTEES.

2024 International Existing Building Code

Revise as follows:

[A] 106.2.1 Construction documents. Construction documents shall be dimensioned and drawn on suitable material. Electronic media documents are permitted to be submitted where *approved* by the *code official*. Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of this code and relevant laws, ordinances, rules and regulations, as determined by the *code official*. The ~~*work areas*~~ areas of work shall be shown.

503.16 Conditions for Group I-1 occupancies. Group I-1 occupancies that are being altered and where the ~~*work area*~~ area of *alteration* work is greater than 50 percent of the ~~aggregate~~ building area shall be classified as Condition 1 or Condition 2 in accordance with Section 308.2 of the *International Building Code*.

503.16.1 Smoke Barriers in Group I-1, Condition 2. In Group I-1, Condition 2 occupancies where the ~~*work area*~~ area of *alteration* work is on a story used for sleeping rooms for more than 30 care recipients, the story shall be divided into not less than two compartments by smoke barrier walls in accordance with Section 420.6 of the *International Building Code*.

503.17 Ambulatory care facilities. Where a ~~*work area*~~ area of *alteration* work exceeds 50 percent of the building area and the ~~*work area*~~ area of *alteration* work includes an existing *ambulatory care facility*, the following shall be provided:

1. A smoke compartment in accordance with Section 422.3 of the *International Building Code* where the *alteration* results in an *ambulatory care facility* greater than 10,000 square feet on one story.
2. Separation from adjacent spaces in accordance with Section 422.2 of the *International Building Code*, where any such facility has the potential for four or more care recipients are to be incapable of self-preservation at any time.

503.18 Enhanced classroom acoustics. In Group E occupancies, where the ~~*work area*~~ area of *alteration* work exceeds 50 percent of the building area, enhanced classroom acoustics shall be provided in all classrooms with a volume of 20,000 cubic feet (565 m^3) or less. Enhanced classroom acoustics shall comply with the reverberation time in Section 808 of ICC A117.1.

503.20 Two-way communications systems. Where the ~~*work area for alterations*~~ area of *alteration* work exceeds 50 percent of the building area and the building has elevator service, ~~a~~ two-way communication systems shall be provided where required by Section 1009.8 of the *International Building Code*.

506.6 Enhanced classroom acoustics. In Group E occupancies, where the ~~*work area*~~ area of *alteration* work exceeds 50 percent of the building area, enhanced classroom acoustics shall be provided in all classrooms with a volume of 20,000 cubic feet (565 m^3) or less. Enhanced classroom acoustics shall comply with the reverberation time in Section 808 of ICC A117.1.

EB63-25 Part II

IEBC: [BS] 503.5, [BS] 503.7, [BS] 503.8, [BS] 503.9, [BS] 503.10, [BS] 503.11

Proponents: Grant Ullrich, Chair, representing ICC Adaptive Reuse Working Group (grant.ullrich@cityofchicago.org); Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

[BS] 503.5 Seismic Design Category F. Where the ~~*work area*~~ area of *alteration* work exceeds 50 percent of the building area, and where the building is assigned to Seismic Design Category F, the lateral force-resisting system of the altered building shall meet the requirements of Section 1609 of the *International Building Code* and Section 304.3.2 of this code. Supports and attachments for nonstructural components serving any portion of the building with a use included in *Risk Category* IV shall comply with Section 1613 of the *International Building Code* or shall comply with ASCE 41 using an objective of Position Retention nonstructural performance with the BSE-1E earthquake hazard level.

[BS] 503.7 Anchorage for concrete and reinforced masonry walls. Where the ~~*work area*~~ area of *alteration* work exceeds 50 percent of the building area, the building is assigned to Seismic Design Category C, D, E or F and the building's structural system includes concrete or reinforced masonry walls with a flexible roof diaphragm, the *alteration* shall comply with Section 304.3.2 by evaluation of the existing condition or by installation of wall anchors at the roof line.

[BS] 503.8 Anchorage for unreinforced masonry walls in major alterations. Where the ~~*work area*~~ area of *alteration* work exceeds 50 percent of the building area, the building is assigned to Seismic Design Category C, D, E or F and the building's structural system includes unreinforced masonry bearing walls, the *alteration* shall comply with Section 304.3.2 by evaluation of the existing condition or by installation of wall anchors at the floor and roof lines.

[BS] 503.9 Bracing for unreinforced masonry parapets in major alterations. Where the ~~*work area*~~ area of *alteration* work exceeds 50 percent of the building area, and where the building is assigned to Seismic Design Category C, D, E or F, and the building has parapets constructed of unreinforced masonry, the *alteration* shall comply with Section 304.3.2 by evaluation of the existing condition or by installation of parapet bracing to resist out-of-plane seismic forces.

[BS] 503.10 Anchorage of unreinforced masonry partitions in major alterations. Where the ~~*work area*~~ area of *alteration* work exceeds 50 percent of the building area, or where the building is assigned to Seismic Design Category C, D, E or F, and the building has unreinforced masonry partitions and nonstructural walls, the *alteration* work shall include evaluation of the existing condition or removal, anchoring or alteration of any such partitions or walls within the ~~*work area*~~ area of *alteration* work and adjacent to egress paths from the ~~*work area*~~ area of *alteration* work, to comply with Section 304.3.2 .

[BS] 503.11 Substantial structural alteration. Where the ~~*work area*~~ area of *alteration* work exceeds 50 percent of the building area and where work involves a *substantial structural alteration*, the lateral load-resisting system of the altered building shall satisfy the requirements of Section 1609 of the *International Building Code* and Section 304.3.2 of this code. Where the building is assigned to Seismic Design Category D or F, supports and attachments for nonstructural components required to serve any portion of the building with a use included in *Risk Category* IV shall comply with Section 1613 of the *International Building Code* or shall comply with ASCE 41 using an objective of Position Retention nonstructural performance with the BSE-1E earthquake hazard level.

Exceptions:

1. Buildings of Group R occupancy with not more than five dwelling or sleeping units used solely for residential purposes that are altered based on the conventional light-frame construction methods of the *International Building Code* or in compliance with the provisions of the *International Residential Code*.
2. Where the intended *alteration* involves structural components of the lowest story of a building, only the lateral load-resisting system above that story need not comply with this section.

Reason: In the IEBC "work area" is a defined term that is central to application of the Work Area Compliance Method, which is set out in Chapters 6 through 12. The defined term is particular to the intent of this compliance method and is not equivalent to the everyday meaning of this phrase. Accordingly, this proposal eliminates usage of the term "work area" in Chapters 1 and 5, where the context indicates use of the defined term is not appropriate.

This proposal is submitted by the ICC Adaptive Reuse Working Group (ARWG) and the ICC Building Code Action Committee (BCAC).

ARWG was convened in 2024 by ICC Government Relations to explore opportunities to facilitate the reuse of existing nonresidential buildings for multi-family residential uses through better training on use of the International Codes for adaptive reuse work and potential amendments to the International Codes. ARWG held numerous virtual meetings in 2024 and met in person at the 2024 annual business meeting in Long Beach. ARWG consists of code officials, design professionals, and other interested parties.

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal is editorial in nature. See reason statement.

EB63-25 Part II

EB64-25

IEBC: [BS] 503.2, [BS] 701.3

Proponents: Rebecca Quinn, RCQuinn Consulting, representing Association of State Floodplain Managers (rebecca@rcquinnconsulting.com); Chad Berginnis, representing Association of State Floodplain Managers (cberginnis@floods.org)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

CHAPTER 5
PRESCRIPTIVE COMPLIANCE METHOD

SECTION 503
ALTERATIONS

Revise as follows:

[BS] 503.2 Flood hazard areas. For buildings and structures in *flood hazard areas* established in Section 1612.3 of the *International Building Code*, or Section R306 of the *International Residential Code*, alterations shall comply with the following, as applicable~~.~~:

1. ~~any~~ Any *alteration* that constitutes *substantial improvement* of the *existing structure* shall comply with the flood design requirements for new construction, and all aspects of the *existing structure* shall be brought into compliance with the requirements for new construction for flood design.
2. New foundations, foundations raised or extended upward, and replacement foundations shall comply with Section 502.2.
3. Any ~~For buildings and structures in *flood hazard areas* established in Section 1612.3 of the *International Building Code*, or Section R306 of the *International Residential Code*, as applicable, any~~ *alterations* that do not constitute *substantial improvement* of the *existing structure* are not required to comply with the flood design requirements for new construction.

CHAPTER 7
ALTERATIONS—LEVEL 1

SECTION 701
GENERAL

[BS] 701.3 Flood hazard areas. In *flood hazard areas*, *alterations* that constitute *substantial improvement* shall require that the building comply with Section 1612 of the *International Building Code*, or Section R306 of the *International Residential Code*, as applicable. New foundations, foundations raised or extended upward, and replacement foundations shall comply with Section 1103.3.

Reason: The I-Code definition for Addition is “An extension or increase in floor area, number of stories, or height of a building or structure.” The flood provisions of the IEBC for additions (Sec. 502.2 and Sec. 1103.3) include work for new foundations, replacement foundations, and foundation raised or extended upward.

In 2023, the ICC BCAC questioned whether raising an existing building in a flood hazard area less than a story could be classified an alteration, not considered an addition. We note that the definition for “addition” cites an increase in height, without parsing how much additional height is needed to classify the work as an addition. On behalf of FEMA, a dozen building officials in Florida communities with

considerable floodplain construction activities were asked their opinion on whether the requirements for the described foundation work should remain under Additions or be moved to Alterations. Nearly all agreed that it should remain under Additions. However, we also want to acknowledge that code users may be looking for requirements for this foundation work under Alterations.

The code proposal is editorial in that it does not add a new requirement – it adds cross references to sections on Alterations in flood hazard areas, to refer users to the appropriate sections for Additions in flood hazard areas.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal adds pointers to existing requirements in the code. There is no change to the technical content of the provisions. By reminding users of existing applicable requirements there will be no cost impact when approving this proposal.

Staff Analysis: CC # EB64-25 and CC # EB32-25 addresses requirements in a different or contradicting manner. The committee is urged to make their intensions clear with their actions on these proposals.

EB64-25

EB65-25

IEBC: SECTION 202 (New), [BS] 503.3

Proponents: Julie C. Furr, representing NCSEA Existing Building Committee (jcfurr@ssr-inc.com); Emily Guglielmo, representing NCSEA (eguglielmo@martinmartin.com)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

Add new definition as follows:

GRAVITY LOAD. The force exerted on structural elements created by the effects of gravity from dead, live, snow, rain, ice, soil, or static fluid loads.

Revise as follows:

[BS] 503.3 Existing structural elements carrying gravity load. Any existing gravity load-carrying structural element for which an *alteration* causes an increase in design gravity load(s) ~~dead, live or snow load, including snow drift effects, of more than 5 percent~~ shall be replaced or altered as needed to carry the gravity loads required by the *International Building Code* for new structures. Any existing gravity load-carrying structural element whose gravity load-carrying capacity is decreased as part of the *alteration* shall be shown to have the capacity to resist the applicable design gravity load(s) ~~dead, live and snow loads including snow drift effects~~ required by the *International Building Code* for new structures. The following exceptions shall not apply to structural elements whose gravity load carrying capacity has been decreased.

Exceptions:

1. Buildings of Group R occupancy with not more than five dwelling or sleeping units used solely for residential purposes where the altered building complies with the conventional light-frame construction methods of the *International Building Code* or the provisions of the *International Residential Code*.
2. Buildings in which the increased dead load is due entirely to the addition of a second layer of roof covering weighing 3 pounds per square foot (0.1437 kN/m^2) or less over an existing single layer of roof covering.
3. Structural elements whose design gravity load combination is increased by not more than 5 percent. Determination of the percent increase shall account for the cumulative effects of additions or alterations since original construction and shall use design criteria required by the *International Building Code* for new construction applied to both the unaltered and altered condition.

Reason: The organization of the paragraph is changed to show the exception of allowing up to a 5% increase in load as an exception rather than the charging language. The basic code requirement is that if load is increased, the member must be structurally evaluated per the current code for new structures and replaced or altered as necessary.

The revision clarifies that the load combination is considered for the 5% increase, not individual loads. Review of documentation from the 2015 to 2018 code revision cycle indicates that the changes adopted in this cycle were made in a good-faith effort to harmonize the various chapters of the IEBC on the topic of the “5 percent rule,” and the resulting language borrowed features from each provision. There is no indication in the records that the proposed intent was to substantially deviate from the prior application of the “5 percent rule,” but was rather to provide more clarity and consistency. Therefore, reverting to load combination rather than individual loads puts the provision back to the original historic intent and practice.

The specific gravity loads enumerated in the definition, “dead, live or snow load, including snow drift effects,” are not comprehensive. Further, the use of "loads" and "effects" suggests that only capacity should be considered for dead, live, and snow, but capacity AND deflection/etc should be considered for snow drifts. While less common, other forms of gravity load, such as sliding snow, ice, rain, earth and fluids, may also be relevant to structural stability. This proposal reverts to the more general language of the 2015 IEBC (and prior editions), which leaves it to the designer to determine what gravity loads are applicable.

Within the 5% exception itself additional language was added:

- To clarify that the net load increase over the originally constructed condition should be compared to the 5% threshold. This is needed to ensure successive individual load increases at or below the 5%, do not effectively exceed the 5% allowance over time. Without this language, a member could gradually become increasingly overloaded to the point of failure, even though each separate addition or alteration would appear to be compliant.
- To clearly define the new IBC loads should be used for the 5% threshold evaluation, applied to both the original and new condition. Because this exception operates only on the load, not the capacity, the original design capacity is not relevant for this calculation. By specifying the new IBC for both the original and new condition, the percent change reflects only the physically changed condition of the addition or alteration. The percent change is not skewed by revisions in design load methodologies that may have occurred between different building code versions.

The gravity load definition was added in response to prior ICC Committee comments questioning what actually constituted a gravity load. The IEBC has used gravity load terminology for a long time, but without a specific definition. The IEBC has separate provisions dealing with the addition or alteration of gravity loads and lateral loads. As there are separate provisions, the intent of this proposal is to clarify when the load is a gravity load versus a lateral load, so that the existing provisions can be applied more correctly and consistently.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal restores the original intent of the 5% language that was added to an earlier version of the IEBC.

EB65-25

EB66-25

IEBC: [BS] 503.3, [BS] 805.2

Proponents: Joseph H. Cain, P.E., representing Solar Energy Industries Association (SEIA) (joecainpe@gmail.com)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

[BS] 503.3 Existing structural elements carrying gravity load. Any existing gravity load-carrying structural element for which an *alteration* causes an increase in design dead, live or snow load, including snow drift effects, of more than 5 percent shall be replaced or altered as needed to carry the gravity loads required by the *International Building Code* for new structures. Any existing gravity load-carrying structural element whose gravity load-carrying capacity is decreased as part of the *alteration* shall be shown to have the capacity to resist the applicable design dead, live and snow loads including snow drift effects required by the *International Building Code* for new structures.

Exceptions:

1. Buildings of Group R occupancy with not more than five dwelling or sleeping units used solely for residential purposes where the altered building complies with the conventional light-frame construction methods of the *International Building Code* or the provisions of the *International Residential Code*.
2. Buildings in which the increased dead load is due entirely to the addition of a second layer of roof covering weighing 3 pounds per square foot (0.1437 kN/m^2) or less over an existing single layer of roof covering.
3. Buildings of Group R3 occupancy with installation of rooftop-mounted *photovoltaic (PV) panel systems* weighing 4 psf (0.1915 kN/m^2) or less over an existing single layer of *roof covering*.

Exceptions 2 and 3 shall not be applied simultaneously.

[BS] 805.2 Existing structural elements carrying gravity loads. Any existing gravity load-carrying structural element for which an *alteration* causes an increase in design dead, live or snow load, including snow drift effects, of more than 5 percent shall be replaced or altered as needed to carry the gravity loads required by the *International Building Code* for new structures. Any existing gravity load-carrying structural element whose gravity load-carrying capacity is decreased as part of the *alteration* shall be shown to have the capacity to resist the applicable design dead, live and snow loads, including snow drift effects, required by the *International Building Code* for new structures.

Exceptions:

1. Buildings of Group R occupancy with not more than five dwelling or sleeping units used solely for residential purposes where the altered building complies with the conventional light-frame construction methods of the *International Building Code* or the provisions of the *International Residential Code*.
2. Buildings in which the increased dead load is attributable to the addition of a second layer of roof covering weighing 3 pounds per square foot (0.1437 kN/m^2) or less over an existing single layer of roof covering.
3. Buildings of Group R3 occupancy with installation of rooftop-mounted *photovoltaic (PV) panel systems* weighing 4 psf (0.1915 kN/m^2) or less over an existing single layer of *roof covering*.

Exceptions 2 and 3 shall not be applied simultaneously.

Reason: This proposal seeks to create new exceptions in the IEBC consistent with a new exception created in the previous cycle in Appendix BO of the 2024 IRC.

Proposal RB162-22 sought to include a new Section R331 Alterations in the 2024 IRC. Originally proposed Section R331.1.2.1 Dead load increase included a proposed exception for a second layer of roof covering weighing 3 pounds per square foot or less.

During the process of the Public Comment Hearings, RB162-22 was Approved As Modified, including Exception 2 for PV and the

statement "These exceptions shall not be applied simultaneously."

This proposal seeks to used the language established in Appendix BO by RB162-22, and add it to IEBC Sections 503.3 and 805.2 with the limitation that it applies to Group R3 buildings only.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal only seeks to create new exceptions based on 2024 IRC Appendix BO.

EB66-25

EB67-25

IEBC: [BS] 503.4, [BS] 805.3

Proponents: Joseph H. Cain, P.E., representing Solar Energy Industries Association (SEIA) (joecainpe@gmail.com)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

Revise as follows:

[BS] 503.4 Existing structural elements carrying lateral load. Except as permitted by Section 503.13, where the *alteration* increases design lateral loads, results in a prohibited structural irregularity as defined in ASCE 7, or decreases the capacity of any existing lateral load-carrying structural element, the lateral force-resisting system of the altered building or structure shall meet the requirements of Section 1609 of the *International Building Code* and Section 304.3.2 of this code.

Exceptions:

1. Any existing lateral load-carrying structural element whose demand-capacity ratio with the alteration considered is not more than 10 percent greater than its demand-capacity ratio with the *alteration* ignored shall be permitted to remain unaltered. For purposes of calculating demand-capacity ratios, the demand shall consider applicable load combinations with design lateral loads or forces in accordance with Section 1609 of the *International Building Code* and Section 304.3.1 or 304.3.2 of this code. The same methodology shall be used for the altered and unaltered structures. For purposes of this exception, comparisons of demand-capacity ratios and calculation of design lateral loads, forces and capacities shall account for the cumulative effects of additions and alterations since original construction. When calculating demand-capacity ratios for wind, the date of original construction shall be permitted to be taken as the date of completion of a prior *addition*, *alteration* or *repair* in compliance with Section 1609 of the *International Building Code* or the code wind forces in effect at the time. When calculating demand-capacity ratios for earthquake, the date of original construction shall be permitted to be taken as the date of completion of a prior *addition*, *alteration* or *repair* in compliance with Section 304.3.1 or Section 304.3.2, Item 1 or 3, or the full or reduced seismic forces in effect at the time.
2. Buildings in which the increase in the demand-capacity ratio is due entirely to the addition of rooftop-supported mechanical equipment individually having an operating weight less than 400 pounds (181.4 kg) and where the total additional weight of all rooftop equipment placed after initial construction of the building is less than 10 percent of the roof dead load. For purposes of this exception, “roof” shall mean the roof level above a particular story.
3. Increases in the demand-capacity ratio due to lateral loads from seismic forces need not be evaluated for the installation of rooftop *photovoltaic panel systems* where the additional roof dead load due to the system, including ballast where applicable, ~~does not exceed 5 pounds per square foot (psf) (0.2394 kN/m^2)~~ and does not exceed 10 percent of the dead load of the existing roof.

[BS] 805.3 Existing structural elements resisting lateral loads. Except as permitted by Section 805.4, where the *alteration* increases design lateral loads, or where the alteration results in prohibited structural irregularity as defined in ASCE 7, or where the *alteration* decreases the capacity of any existing lateral load-carrying structural element, the lateral force-resisting system of the altered building or structure shall meet the requirements of Section 1609 of the *International Building Code* and Section 304.3.2 of this code.

Exceptions:

1. Any existing lateral load-carrying structural element whose demand-capacity ratio with the *alteration* considered is not more than 10 percent greater than its demand-capacity ratio with the *alteration* ignored shall be permitted to remain unaltered. For purposes of calculating demand-capacity ratios, the demand shall consider applicable load combinations with design lateral loads or forces in accordance with Section 1609of the *International Building Code* and Section 304.3.1 or 304.3.2 of this code . The same methodology shall be used for the altered and unaltered structures.For purposes of this exception, comparisons of demand-capacity ratios and calculation of design lateral loads, forces and capacities shall account for the cumulative effects of *additions* and *alterations* since original construction. When calculating demand-capacity ratios for wind, the date of original construction shall be permitted to be taken as the date of completion of a prior *addition*, *alteration* or *repair* in compliance with Section 1609 of the *International Building Code* or the code wind forces in effect at the time. When calculating demand-capacity ratios for earthquake, the date of original construction shall be permitted to be taken as the date of completion of a prior *addition*, *alteration* or *repair* in compliance with Section 304.3.1 or 304.3.2 Item 1 or 3 or the full or reduced seismic forces in effect at the time.

2. Buildings in which the increase in the demand-capacity ratio is due entirely to the addition of rooftop-supported mechanical equipment individually having an operating weight less than 400 pounds (181.4 kg) and where the total additional weight of all rooftop equipment placed after initial construction of the building is less than 10 percent of the roof dead load. For purposes of this exception, “roof” shall mean the roof level above a particular story.

3. Increases in the demand-capacity ratio due to lateral loads from seismic forces need not be evaluated for the installation of rooftop *photovoltaic panel systems* where the additional roof dead load due to the system, including ballast where applicable, ~~does not exceed 5 pounds per square foot (psf) (0.2394 kN/m^2)~~ and does not exceed 10 percent of the dead load of the existing roof.

Reason: This proposal seeks to strike out in both Sections 503.4 and 805.3 an unnecessary second threshold in exception language that was created last cycle by Proposal EB64-22.

Proposal EB64-22 was well-intentioned in efforts to formalize existing practice in the rooftop segment of the solar industry. For PV added on roofs of existing buildings, while it is common and expected to provide a gravity analysis for existing roof members, it is not necessary to create a comprehensive structural analysis of the entire lateral force resisting system to determine the increase in DCR of individual existing structural elements carrying lateral load. As shown in the language in 2024 IBC Section 503.4 Exception 3 and Section 805.3 Exception 3, the important threshold is whether the additional roof dead load due to the PV system does not exceed 10% of the dead load of the existing roof.

Unfortunately, the proponent of EB64-22 created an additional 5 psf threshold for both of these exceptions that is both unnecessary and overly restrictive. While many attached (but not not ballasted) rooftop PV systems will be at or below the 5 psf threshold, many ballasted and unattached PV systems will exceed 5 psf, and will therefore be unnecessarily excluded from using Exception 3. It is common for ballasted rooftop PV systems to be in the range of 5 to 8 psf, and these systems should be allowed to use Exception 3.

During testimony the proponent argued that the second threshold is needed in cases where the PV is concentrated in one portion of the building roof more than another portion of the building roof. In our opinion, this distinction exceeds the intent and the precision implied in the application of "the 10 percent rule."

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

The proposed change is only intended to formalize existing practice in the rooftop solar industry, and seeks to strike an unnecessary second threshold from the language created in the prior cycle.

EB67-25

EB68-25

IEBC: [BS] 503.4, [BS] 805.3

Proponents: David Bonowitz, representing David Bonowitz, S.E. (dbonowitz@att.net); Kelly Cobeen, Wiss Janney Elstner Associates, representing Self (kcobeen@wje.com); Peter Somers, Magnusson Klemencic Associates, representing self (psomers@mka.com)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

Revise as follows:

[BS] 503.4 Existing structural elements carrying lateral load. ~~Except as permitted by Section 503.13, where~~ Where the *alteration* increases design lateral loads, results in a prohibited structural irregularity as defined in ASCE 7, or decreases the capacity of any existing lateral load-carrying structural element, the lateral force-resisting system of the altered building or structure shall meet the requirements of Section 1609 of the *International Building Code* and Section 304.3.2 of this code.

Exceptions:

1. Any existing lateral load-carrying structural element whose demand-capacity ratio with the alteration considered is not more than 10 percent greater than its demand-capacity ratio with the *alteration* ignored shall be permitted to remain unaltered. For purposes of calculating demand-capacity ratios, the demand shall consider applicable load combinations with design lateral loads or forces in accordance with Section 1609 of the *International Building Code* and Section 304.3.1 or 304.3.2 of this code. The same methodology shall be used for the altered and unaltered structures. For purposes of this exception, comparisons of demand-capacity ratios and calculation of design lateral loads, forces and capacities shall account for the cumulative effects of additions and alterations since original construction. When calculating demand-capacity ratios for wind, the date of original construction shall be permitted to be taken as the date of completion of a prior *addition*, *alteration* or *repair* in compliance with Section 1609 of the *International Building Code* or the code wind forces in effect at the time. When calculating demand-capacity ratios for earthquake, the date of original construction shall be permitted to be taken as the date of completion of a prior *addition*, *alteration* or *repair* in compliance with Section 304.3.1 or Section 304.3.2, Item 1 or 3, or the full or reduced seismic forces in effect at the time.
2. ~~Buildings in which~~ Where the increase in ~~the demand-capacity ratio~~ load is due entirely to the addition of rooftop-supported mechanical equipment individually having an operating weight less than 400 pounds (~~181.4 kg~~ 1.78 kN) and ~~where~~ the total ~~additional~~ weight of all rooftop equipment placed after initial construction of the building , including the intended new equipment, is less than 10 percent of the original roof dead load, compliance with this section is not required. For purposes of this exception, “roof” shall mean the roof level above a particular story. This exception shall not be applied concurrently with Exception 3.
3. ~~Increases in the demand-capacity ratio due to lateral loads from seismic forces need not be evaluated for~~ Where the intended alteration involves the installation of a rooftop *photovoltaic panel systems* ~~where~~ , the additional ~~roof~~ dead load due to the system, including ballast where applicable, does not exceed 5 pounds per square foot (psf) (0.2394 kN/m^2), and ~~does not exceed~~ the total weight of all rooftop equipment placed after initial construction of the building, including the intended new system, is less than 10 percent of the original roof dead load ~~of the existing roof~~ , compliance with this section is not required. This exception shall not be applied concurrently with Exception 2.

[BS] 805.3 Existing structural elements resisting lateral loads. ~~Except as permitted by Section 805.4, where~~ Where the *alteration* increases design lateral loads, or where the alteration results in prohibited structural irregularity as defined in ASCE 7, or where the *alteration* decreases the capacity of any existing lateral load-carrying structural element, the lateral force-resisting system of the altered building or structure shall meet the requirements of Section 1609 of the *International Building Code* and Section 304.3.2 of this code.

Exceptions:

1. Any existing lateral load-carrying structural element whose demand-capacity ratio with the *alteration* considered is not more than 10 percent greater than its demand-capacity ratio with the *alteration* ignored shall be permitted to remain unaltered. For purposes of calculating demand-capacity ratios, the demand shall consider applicable load combinations with design lateral loads or forces in accordance with Section 1609of the *International Building Code* and Section 304.3.1 or 304.3.2 of this code . The same methodology shall be used for the altered and unaltered structures.For purposes of this exception, comparisons of demand-capacity ratios and calculation of design lateral loads, forces and capacities shall account for the cumulative effects of *additions* and *alterations* since original construction. When calculating demand-capacity ratios for wind, the date of original construction shall be permitted to be taken as the date of completion of a prior *addition*, *alteration* or *repair* in compliance with Section 1609 of the *International Building Code* or the code wind forces in effect at the time. When calculating demand-capacity ratios for earthquake, the date of original construction shall be permitted to be taken as the date of completion of a prior *addition*, *alteration* or *repair* in compliance with Section 304.3.1 or 304.3.2 Item 1 or 3 or the full or reduced seismic forces in effect at the time.

2. ~~Buildings in which~~ Where the increase in ~~the demand-capacity ratio~~ load is due entirely to the addition of rooftop-supported mechanical equipment individually having an operating weight less than 400 pounds (~~181.4 kg~~ 1.78 kN) and ~~where~~ the total ~~additional~~ weight of all rooftop equipment placed after initial construction of the building , including the intended new equipment, is less than 10 percent of the original roof dead load, compliance with this section is not required. For purposes of this exception, “roof” shall mean the roof level above a particular story. This exception shall not be applied concurrently with Exception 3.

3. ~~Increases in the demand-capacity ratio due to lateral loads from seismic forces need not be evaluated for~~ Where the intended alteration involves the installation of a rooftop *photovoltaic panel systems* ~~where~~ , the additional ~~roof~~ dead load due to the system, including ballast where applicable, does not exceed 5 pounds per square foot (psf) (0.2394 kN/m^2), and ~~does not exceed~~ the total weight of all rooftop equipment placed after initial construction of the building, including the intended new system, is less than 10 percent of the original roof dead load ~~of the existing roof~~ , compliance with this section is not required. This exception shall not be applied concurrently with Exception 2.

Reason: This proposal makes matching editorial clarifications to the Prescriptive and Work Area methods, with no substantive change. The intent is only to clarify what should be the current interpretation of this provision.

In the main provision, the proposal deletes the reference to the section that allows voluntary seismic improvement (Section 503.13 or 805.4). This reference is not needed, as Section 503.13 (or 805.4) already functions effectively as an exception to Section 503.4 (or 805.3), since it states that where applicable, other structural requirements throughout Section 503 (or Chapters 7 and 8) are waived. Further, none of the other alteration triggers throughout Section 503 (or Chapters 7 and 8) have this reference, so having it here is inconsistent and potentially confusing.

In Exceptions 2 and 3, the proposal makes various editorial corrections and clarifications:

- The exceptions are reworded to read as complete sentences, similar to Exception 1. This is consistent with ICC practice.
- The references to “demand-capacity ratio” are removed. Since the main provision does not mention DCR, mentioning it in these exceptions is misleading.
- In Exception 2, the metric equivalent is corrected from a mass to a weight. ASCE 7 (and the IEBC commentary) properly use 1.78 kN.
- In Exception 3, the reference to “10 percent” of the current roof weight is reworded to match the wording in Exception 2, which properly accounts for past increases. In both exceptions the application of this limit is clarified.
- In both Exception 2 and 3, a final sentence is added to confirm the common understanding (as stated in the IEBC commentary) that these two exceptions were developed independently and only one of them should be applied to a given alteration project.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

As explained in the reason statement, the proposal is entirely an editorial clarification, intended to improve usability, with no substantive effect.

EB69-25

IEBC: [BS] 503.7, [BS] 503.8, [BS] 906.4, [BS] 906.5

Proponents: Julie C. Furr, representing NCSEA Existing Building Committee (jcfurr@ssr-inc.com); Emily Guglielmo, representing NCSEA (eguglielmo@martinmartin.com)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

Revise as follows:

[BS] 503.7 Anchorage for concrete and reinforced masonry ~~walls~~ buildings in major alterations. Where the *work area* exceeds 50 percent of the building area, the building is assigned to Seismic Design Category C, D, E or F and the building's structural system includes concrete or reinforced masonry walls with a flexible roof diaphragm, the *alteration* shall comply with Section 304.3.2 by evaluation of the existing condition or by installation of wall anchors at the roof line of all subject buildings.

[BS] 503.8 Anchorage for unreinforced masonry walls in major alterations. Where the *work area* exceeds 50 percent of the building area, the building is assigned to Seismic Design Category C, D, E or F and the building's structural system includes unreinforced masonry bearing walls, the *alteration* shall comply with Section 304.3.2 by evaluation of the existing condition or by installation of wall anchors at the floor and roof lines.

[BS] 906.4 Anchorage for concrete and reinforced masonry buildings. For any building assigned to Seismic Design Category C, D, E or F with a structural system that includes concrete or reinforced masonry walls with a flexible roof diaphragm, the *alteration* shall comply with Section 304.3.2 by evaluation of the existing condition or by installation of wall anchors at the roof line of all subject buildings ~~and at the floor lines of unreinforced masonry~~.

[BS] 906.5 Anchorage for unreinforced masonry walls. For any building assigned to Seismic Design Category C, D, E or F with a structural system that includes unreinforced masonry bearing walls, the *alteration* shall comply with Section 304.3.2 by evaluation of the existing condition or by installation of wall anchors at the floor and roof ~~line~~ lines.

Reason: This code change proposal reconciles the work area compliance method with the prescriptive compliance method for anchorage of concrete, reinforced masonry and un-reinforced masonry walls in major alterations. As written, for unreinforced masonry bearing walls, the prescriptive method requires wall anchors at the floor and roof lines in SDC-C, D, E & F. For the work area method, unreinforced masonry wall anchors are required at the roof line for SDC-C and at the floor lines for SDC-D, E & F. This code change proposal will require unreinforced masonry wall anchors at the roof and wall lines for SDC-C,D,E & F in the work area compliance method. This code change proposal adds clarifying language for consistency between the two methods and reconciles the work area method with the prescriptive method.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

The provisions have always been intended to be identical between the two compliance methods.

EB70-25

IEBC: [BS] 503.9, [BS] 906.6

Proponents: Julie C. Furr, representing NCSEA Existing Building Committee (jcfurr@ssr-inc.com); Emily Guglielmo, representing NCSEA (eguglielmo@martinmartin.com)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

Revise as follows:

[BS] 503.9 Bracing for unreinforced masonry parapets in major alterations. Where the *work area* exceeds 50 percent of the building area, and where the building is assigned to Seismic Design Category B, C, D, E or F, and the building has parapets constructed of unreinforced masonry, the *alteration* shall comply with Section 304.3.2 by evaluation of the existing condition or by installation of parapet bracing to resist out-of-plane seismic forces.

[BS] 906.6 Bracing for unreinforced masonry parapets. Parapets constructed of unreinforced masonry in buildings assigned to Seismic Design Category B, C, D, E or F shall comply with Section 304.3.2 by evaluation of the existing condition or by installation of parapet bracing.

Reason: Although seismic events are not as frequent on the east coast as the west coast, there have been a few historic events of estimated magnitude 6.0 or greater.

- In the 1755 Cape Anne EQ M6.2 EQ there was substantial damage to masonry chimneys and walls with an account of bricks littering the city streets of Boston.
- In 1811 there was an estimated M7.7 EQ in New Madrid and the 1886 M7.1 Charlston SC EQ with damaging effects to URM buildings.
- In 2011 there was the M5.8 Mineral VA EQ. A 15 WCEE report on the Earthquake by J.E. Beavers, M.R. Eartherton, R.E. Gilsane, J.M. Ricles & Y.C. Lin was written with funding from the Earthquake Engineering Research Institute. They observed that many commercial buildings in downtown Mineral, Virgina have URM storefronts and parapets that were damaged. There was also extensive damage to URM veneers and chimneys. An account from a colleague who was in Mineral at the time of the earthquake was that there were bricks littering the ground everywhere. The earthquake also caused architectural and structural damage in Washington D.C., almost 90 miles away with damage to the National Cathedral, Smithsonian Institute and the Washington Monuments.

For URM buildings, the parapet at the top of the building is the most vulnerable falling hazard in consideration of low overburden stress and lack of anchorage to the roof line. FEMA considers URM buildings the most hazardous building type when subjected to earthquakes and states that URM parapets can become damaged even with just slight shaking.

In Mineral VA, based on a default soil class D, most Risk Category II buildings would be classified as SDC-B. Based on the history of damage that has occurred to URM parapets in SDC-B on the East Coast where there is a large inventory of URM buildings, including URM Parapet provisions in SDC-B is a common sense way to preserve health and safety.

Cost Impact: Increase

Estimated Immediate Cost Impact:

URM Parapets in SDC B would be required to comply with structural seismic provisions with an estimated cost of $55 per lineal foot. This cost is based on historical pricing of similar limited URM retrofits reported for Seattle, WA.

Estimated Immediate Cost Impact Justification (methodology and variables):

The estimated cost of $55 per lineal foot is based on pricing for Seattle, WA for URM parapet reinforcing as determined from information available from the Seattle Department of Construction & Inspections.

EB71-25

IEBC: [BS] 503.9, [BS] 906.6

Proponents: Julie C. Furr, representing NCSEA Existing Building Committee (jcfurr@ssr-inc.com); Emily Guglielmo, representing NCSEA (eguglielmo@martinmartin.com)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

Revise as follows:

[BS] 503.9 Bracing for unreinforced masonry parapets in major alterations. Where the *work area* exceeds 50 percent of the building area, and where the building is assigned to Seismic Design Category C, D, E or F, and the building has parapets constructed of unreinforced masonry, the *alteration* shall comply with Section 304.3.2 by evaluation of the existing condition or by installation of parapet bracing and anchorage at the roof line to resist out-of-plane seismic forces.

[BS] 906.6 Bracing for unreinforced masonry parapets. Parapets constructed of unreinforced masonry in buildings assigned to Seismic Design Category C, D, E or F shall comply with Section 304.3.2 by evaluation of the existing condition or by installation of parapet bracing and anchorage at the roof line to resist out-of-plane seismic forces.

Reason: An important part of mitigating unreinforced masonry parapets is assuring that they are properly anchored at the roof line. For unreinforced masonry parapets in seismic design category C,D,E & F buildings, walls anchorage is covered in Sections 503.1 and 906.5. There is no provision for unreinforced masonry wall anchors for buildings in Seismic Design Category-B. By adding wall anchorage to sections 503.9 and 906.6, it would not un-necessarily have to be added to sections 503.1 and 906.6 where it may not be a hazard in the event there are no unreinforced masonry parapets.

Cost Impact: Increase

Estimated Immediate Cost Impact:

This would result in a potential cost increase of $55.00 for parapets requiring remediation at the roof line. This cost is based on historical pricing of similar limited URM retrofits reported for Seattle, WA.

Estimated Immediate Cost Impact Justification (methodology and variables):

The estimated cost of $55 per lineal foot is based on pricing for Seattle, WA for URM parapet reinforcing as determined from information available from the Seattle Department of Construction & Inspections.

EB72-25

IEBC: SECTION 202 (New), 505.3.1, 702.5.1

Proponents: Mike Fischer, Fischer Advocacy, representing Mighton Products (mdfischer@outlook.com)

2024 International Existing Building Code

Add new definition as follows:

WINDOW OPENING CONTROL DEVICE. A window hardware device that controls the window sash opening and includes a release mechanism that allows the window to serve as an *emergency escape and rescue opening.*

Revise as follows:

505.3.1 Control devices. Window opening control devices or fall prevention devices complying with ASTM F2090 shall be permitted for use on windows required to provide *emergency escape and rescue openings*. After operation to release the control device allowing the window to fully open, the control device shall not reduce the net clear opening area of the window unit. *Emergency escape and rescue openings* shall be operational from the inside of the room without the use of keys or tools. The use of window stops, night latches or other devices that restrict the window from opening to the emergency escape and rescue opening dimensions required by this code shall not be permitted.

702.5.1 Control devices. Window opening control devices or fall prevention devices complying with ASTM F2090 shall be permitted for use on windows required to provide *emergency escape and rescue openings.* After operation to release the control device allowing the window to fully open, the control device shall not reduce the net clear opening area of the window unit. *Emergency escape and rescue openings* shall be operational from the inside of the room without the use of keys or tools. The use of window stops, night latches or other devices that restrict the window from opening to the emergency escape and rescue opening dimensions required by this code shall not be permitted.

Reason: There is confusion among child safety advocates regarding the use of devices to help reduce child window fall incidents. As an example, some public health groups recommend the use of window locks, window stops, or night latches to reduce the clear window opening. While well-intentioned, this safety messaging almost universally ignores the potential impact of window locks on the emergency escape and rescue provisions of the code.

This proposal adds a definition of window opening control device to help establish the dual role of the devices- child fall safety and home fire safety. The additional provisions regarding window locks and other devices make it clear that such devices are not permitted on windows used as emergency escape and rescue openings. With the definition, this provision will aid in code enforcement by making it crystal clear that only ASTM F20290 compliant devices can be used on windows that serve as emergency escape and rescue openings. WDMA and FGIA released a technical bulletin in 2024 (AAMA/WDMA TB-24-01) that includes the following information about window hardware:

"Vent stops and night latches are devices that may be installed on windows (typically single or double-hung windows or sliding or gliding windows) as a means of providing natural ventilation while attempting to discourage unwanted entry of an intruder. It can be confusing, as these devices can look similar to or even partially function similar to WOCDs, but do not meet the requirements of the ASTM F2090 standard and should not be mistaken as a window fall prevention device. Caution should be taken before using vent stops or night latches on any window designated or intended for emergency escape and rescue. Vent stops and night latches which cannot be released, and which restrict the sash from being fully opened should not be used on windows designated or intended for emergency escape and rescue."

And:

"Vent limiters, night latches and other limiting devices Other types of devices that limit the window sash opening include vent limiters, night latches or vent stops — none of which fall under the scope of ASTM F2090. These devices can be installed on all operable window types (hung, sliding or gliding, or casement/awning styles) to limit the sash opening to let air in or out for ventilation. Vent limiters are devices that restrict the sash opening and typically require a tool or removal of a fastener to open the sash fully. As such, these devices should not be installed on windows required for emergency escape and rescue. If a vent limiter restricts a sash to a less than a four-inch

opening, it is possible that a building code official will accept it as an option to the minimum sill height code requirement provided that the vent limiter is not installed on a required emergency escape and rescue (egress) opening. Vent limiters may also be used in applications where windows are installed greater than 75 feet above grade. Vent stops or night latches are devices that may limit the sash opening but do not meet the criteria for a WOCD per ASTM F2090. Therefore, they would not be allowed as an option to the minimum sill height code requirement but may be of interest to occupants as a way of restricting the sash opening. Night latches allow the sash to open a limited distance for ventilation, while limiting the amount a window sash is open, which can help support home security. Caution should be taken before using vent stops or night latches on any window designated or intended for emergency escape and rescue. Vent stops and night latches which cannot be released, and which restrict the sash from being fully opened should not be used on windows designated or intended for emergency escape and rescue."

To download the Technical Bulletin visit: https://wdma.memberclicks.net/assets/docs/TechnicalCenter/AAMA-WDMA_TB-24-01_UL.pdf

This proposal will assist code officials with interpretation and enforcement of the window fall and emergency escape and rescue opening provisions of the code, while also providing an opportunity to improve child safety and home fire safety advocacy programs. It is critical that both fall and fire safety issues are considered when enforcing the code and educating the public.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

The proposal is a clarification of the current code and contains no mandatory provisions.

EB72-25

EB73-25

IEBC: 506.4, 1011.5.6

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

506.4 Existing emergency escape and rescue openings. Where a *change of occupancy* would require an *emergency escape and rescue opening* in accordance with Section 1031.1 of the *International Building Code*, operable windows serving as the *emergency escape and rescue opening* shall comply with ~~the following:~~Sections 505.3 and 505.4.

1. ~~An existing operable window shall provide a minimum net clear opening of 4 square feet (0.38 m^2) with a minimum net clear opening height of 22 inches (559 mm) and a minimum net clear opening width of 20 inches (508 mm).~~
2. ~~A replacement window where such window complies with both of the following:~~
   2.1. ~~The replacement window meets the size requirements in Item 1.~~
   2.2. ~~The replacement window is the manufacturer's largest standard size window that will fit within the existing frame or existing rough opening. The replacement window shall be permitted to be of the same operating style as the existing window or a style that provides for an equal or greater window opening area than the existing window.~~

1011.5.6 Existing emergency escape and rescue openings. Where a *change of occupancy* would require an *emergency escape and rescue opening* in accordance with Section 1031 of the *International Building Code*, operable windows serving as the *emergency escape and rescue opening* shall comply with ~~the following:~~ Sections 702.5 and 702.6.

1. ~~An existing operable window shall provide a minimum net clear opening of 4 square feet (0.38 m^2) with a minimum net clear opening height of 22 inches (559 mm) and a minimum net clear opening width of 20 inches (508 mm).~~
2. ~~A replacement window where such window complies with both of the following:~~
   2.1. ~~The replacement window meets the size requirements in Item 1.~~
   2.2. ~~The replacement window is the manufacturer's largest standard size window that will fit within the existing frame or existing rough opening. The replacement window shall be permitted to be of the same operating style as the existing window or a style that provides for an equal or greater window opening area than the existing window.~~

Reason: There are additional clarifications/requirements for EERO in the prescriptive method in Section 505.3 and 505.4 and in the work area method in Section 702.5 and 702.6. Using a reference instead of repeating part of the requirements would help with consistency for EEROs. In addition, for the work area method, referencing this would be consistent with the reference to Chapter 8 in handrails and guards (Section 1105.4 and 1105.5).

This proposal is one of the series of changes to IEBC Chapter 10 from the BCAC. See the proposal for Chapter 10 reorganization for a clean draft.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).
BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is a correlation between chapters, so there is no change in requirements.

EB74-25

IEBC: SECTION 202 (New), [BS] 506.5.5 (New), [BS] 1006.5 (New)

Proponents: Julie C. Furr, representing NCSEA Existing Building Committee (jcfurr@ssr-inc.com); Emily Guglielmo, representing NCSEA (eguglielmo@martinmartin.com)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

Add new definition as follows:

[BS] TSUNAMI DESIGN GEODATABASE. The ASCE database (2022-1.0) of *Tsunami Design Zone* maps and associated design data for the states of Alaska, California, Hawaii, Oregon and Washington.
[BS] TSUNAMI DESIGN ZONE. An area identified on the *Tsunami Design Zone* map between the shoreline and the inundation limit, within which certain structures designated in Chapter 16 of the International Building Code are designed for or protected from inundation.

Add new text as follows:

[BS] 506.5.5 Tsunami Loads. Where a *change of occupancy* results in a structure being reassigned to Tsunami Risk Category III or IV, as defined by ASCE 7, and is located in a *Tsunami Design Zone* according to the *Tsunami Design Geodatabase*, the structure shall satisfy the requirements of Section 1615 of the International Building Code for the new tsunami *risk category*.

Exception: Where the area of the new occupancy is less than 10 percent of the building area, compliance with this section is not required. The cumulative effect of occupancy changes over time shall be considered.

[BS] 1006.5 Tsunami Loads. Where a *change of occupancy* results in a structure being reassigned to Tsunami Risk Category III or IV, as defined by ASCE 7, and is located in a *Tsunami Design Zone* according to the *Tsunami Design Geodatabase*, the structure shall satisfy the requirements of Section 1615 of the International Building Code for the new tsunami *risk category*.

Exception: Where the area of the new occupancy is less than 10 percent of the building area, compliance with this section is not required. The cumulative effect of occupancy changes over time shall be considered.

Reason: When a change of occupancy results in a higher Risk Category, additional consideration is already required for snow, wind, and seismic design. This proposal adds tsunami design zones as a hazard to be considered where the change of occupancy results in a higher Risk Category. This approach extends the same rationale used for new building design to existing buildings, which is to limit development of higher risk category structures in tsunami design zones, unless the structure is appropriately designed for the hazard. The proposal language mimics language used for snow and wind design in Sections 506.5.2 and 1006.2, and seismic design in Sections 506.5.3 and 1006.3.

The alteration or change of occupancy of a structure is still permitted for a non-conforming structure provided that there is no increase in Risk Category. A substantial improvement or substantial structural alteration is still permitted without consideration of tsunami design, provided that there is no increase in Risk Category. Therefore, the proposed language has quite limited, but important, applicability. Unless modified by a local jurisdiction tsunami design only applies to Risk Category III and IV buildings.

This proposal copies the definitions of Tsunami Design Zone and Tsunami Design Geodatabase from the IBC and requires that structures with a change of occupancy resulting in an elevated Tsunami Risk Category (as defined in ASCE 7) shall conform to the building code for tsunami design as for a new building. If not modified to achieve current code conformance, a structure can still be maintained or renovated within the pre-existing Risk Category.

The vulnerability of an existing structure should not be elevated by an increased occupant load or a change of occupancy that would elevate the Tsunami Risk Category of a Risk Category II structure to a Risk Category III structure, or Risk Category III structure to a Risk Category IV structure, when it does not conform to the building code for tsunami design.

Cost Impact: Increase

Estimated Immediate Cost Impact:

Minimally $0.00 where a change of occupancy does not result in the structure being reassigned to a Tsunami Risk Category III or IV, there will be no change in current practice.

Estimated Immediate Cost Impact Justification (methodology and variables):

The estimated cost of $80.00 per square foot was determined by using estimated costs from Flood Mart to reinforce structural integrity of a building, and increasing those costs to account for added strength required to resist the force of flood wave impacts. The estimated cost of 100,000 square foot structure would be $8,000,000.

Staff Analysis: This proposal is simply duplicating definitions from the IBC. The definitions cannot be revised in this proposal as they are scoped to another committee.

EB74-25

EB75-25

IEBC: 506.5.5 (New), 1006.5 (New)

Proponents: Julie C. Furr, representing NCSEA Existing Building Committee (jcfurr@ssr-inc.com); Emily Guglielmo, representing NCSEA (eguglielmo@martinmartin.com)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

Add new text as follows:

506.5.5 Flood loads. Where a change of occupancy results in a structure being assigned to a higher flood design class, according to ASCE 24, and the structure is located within a flood hazard area, the structure shall satisfy the requirements of Sections 1612 of the *International Building Code* for the new flood design class.

Exception: Where the area of the new occupancy is less than 10 percent of the building area, compliance with this section is not required. The cumulative effect of occupancy changes over time shall be considered.

1006.5 Flood loads. Where a change of occupancy results in a structure being assigned to a higher flood design class, according to ASCE 24, and the structure is located within a f*lood hazard area*, the structure shall satisfy the requirements of Sections 1612 of the *International Building Code* for the new flood design class.

Exception: Where the area of the new occupancy is less than 10 percent of the building area, compliance with this section is not required. The cumulative effect of occupancy changes over item shall be considered.

Reason: When a change of occupancy results in a higher Risk Category, additional consideration is already required for snow, wind, and seismic design. This proposal adds flood design as a hazard to be considered where the change of occupancy results in a higher Flood Design Class. This approach extends the same rationale used for new building design to existing buildings, which is to limit increasing the hazard from occupied structures in flood hazard areas if the structure has not already been designed for that increased hazard. The proposal language mimics language used for snow and wind design in Sections 506.5.2 and 1006.2, and seismic design in Sections 506.5.3 and 1006.3.

The vulnerability of an existing structure should not be elevated by an increased occupant load or a change of occupancy that would elevate the hazard of a structure when it does not conform to the building code for flood design.

Cost Impact: Increase

Estimated Immediate Cost Impact:

Minimally $0.00 where a change of occupancy does not result in the structure being reassigned to a higher flood design class, there will be no change in current practice.

Estimated Immediate Cost Impact Justification (methodology and variables):

An estimated cost of $40 per square foot to raise an existing structure above the base flood elevation. This cost is based on estimated costs provided by Flood Mart, December 2024. The estimated cost for a 5,000 square foot structure would be $200,000.

EB76-25

IEBC: [BS] 506.5.3, [BS] 1006.3

Proponents: Shahen Akelyan, Los Angeles Department of Building and Safety, representing self (shahen.akelyan@lacity.org)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

Revise as follows:

[BS] 506.5.3 Seismic loads (seismic force-resisting system). Where a *change of occupancy* results in a building being assigned to a higher *risk category*, or where the change is from a Group S or Group U occupancy to any occupancy other than Group S or Group U, the lateral force-resisting system of the building shall comply with Section 304.3.1 for the new *risk category* or occupancy. Where a *change of occupancy* results in a building being assigned to *Risk Category* IV and Seismic Design Category D or F, nonstructural components serving any portion of the building changed to *Risk Category* IV shall comply with the requirements of Section 1613 of the *International Building Code* or shall comply with ASCE 41 using an objective of Operational nonstructural performance with the BSE-1N earthquake hazard level.

Exceptions:

1. Where the area of the new occupancy is less than 10 percent of the building area, the occupancy is not changing from a Group S or Group U occupancy, and the new occupancy is not assigned to *Risk Category* IV, compliance with this section is not required. The cumulative effect of occupancy changes over time shall be considered.
2. Where a *change of use* results in a building being reclassified from *Risk Category* I or II to *Risk Category* III and the seismic coefficient, S_{DS}, is less than 0.33, compliance with this section is not required.
3. Unreinforced masonry bearing wall buildings assigned to *Risk Category* III and to Seismic Design Category A or B, shall be permitted to use Appendix Chapter A1 of this code.
4. Where the change is from a Group S or Group U occupancy and there is no change of *risk category*, compliance with Section 304.3.2 shall be permitted.

[BS] 1006.3 Seismic loads. Where a *change of occupancy* results in a building being assigned to a higher *risk category*, or where the change is from a Group S or Group U occupancy to any occupancy other than Group S or Group U, the lateral force-resisting system of the building shall comply with Section 304.3.1 for the new *risk category* or occupancy. Where a *change of occupancy* results in a building being assigned to *Risk Category* IV and Seismic Design Category D or F, nonstructural components serving any portion of the building changed to *Risk Category* IV shall comply with the requirements of Section 1613 of the *International Building Code* or shall comply with ASCE 41 using an objective of operational nonstructural performance with the BSE-1N earthquake hazard level.

Exceptions:

1. Where a *change of use* results in a building being reclassified from *Risk Category* I or II to *Risk Category* III and the seismic coefficient, S_{DS}, is less than 0.33, compliance with this section is not required.
2. Where the area of the new occupancy is less than 10 percent of the building area, the occupancy is not changing from a Group S or Group U occupancy, and the new occupancy is not assigned to *Risk Category* IV, compliance with this section is not required. The cumulative effect of occupancy changes over time shall be considered.
3. Unreinforced masonry bearing wall buildings assigned to *Risk Category* III and to Seismic Design Category A or B shall be permitted to use Appendix Chapter A1 of this code.
4. Where the change is from a Group S or Group U occupancy and there is no change of *risk category*, compliance with Section 304.3.2 shall be permitted.

Reason: The proposal is editorial. This section lists a condition where there is a change in occupancy group, but leaves out the

requirements for the compliance for the new occupancy group.

Bibliography: Shahen Akelyan, City of Los Angeles with consensus with the Existing Building Code committee of the Structural Engineering Association of Southern California and in collaboration with the Los Angeles tall Building Seismic Design Council.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

The proposal is editorial in nature.

EB76-25

EB77-25

IEBC: [BS] 506.5.3, [BS] 1006.3

Proponents: Shahen Akelyan, Los Angeles Department of Building and Safety, representing self (shahen.akelyan@lacity.org)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

Revise as follows:

[BS] 506.5.3 Seismic loads (seismic force-resisting system). Where a *change of occupancy* results in a building being assigned to a higher *risk category*, or where the change is from a Group S or Group U occupancy to any occupancy other than Group S or Group U, the lateral force-resisting system of the building shall comply with Section 304.3.1 for the new *risk category*. Where a *change of occupancy* results in a building being assigned to *Risk Category* IV and Seismic Design Category D or F, nonstructural components serving any portion of the building changed to *Risk Category* IV shall comply with the requirements of Section 1613 of the *International Building Code* or shall comply with ASCE 41 using an objective of Operational nonstructural performance with the BSE-1N earthquake hazard level.

Exceptions:

1. Where the area of the new occupancy is less than 10 percent of the building area, ~~the occupancy is not changing from a Group S or Group U occupancy,~~ and the new occupancy is not assigned to *Risk Category* IV, compliance with this section is not required. The cumulative effect of occupancy changes over time shall be considered.
2. Where a *change of use* results in a building being reclassified from *Risk Category* I or II to *Risk Category* III and the seismic coefficient, S_{DS}, is less than 0.33, compliance with this section is not required.
3. Unreinforced masonry bearing wall buildings assigned to *Risk Category* III and to Seismic Design Category A or B, shall be permitted to use Appendix Chapter A1 of this code.
4. Where the change is from a Group S or Group U occupancy and there is no change of *risk category*, compliance with Section 304.3.2 shall be permitted.

[BS] 1006.3 Seismic loads. Where a *change of occupancy* results in a building being assigned to a higher *risk category*, or where the change is from a Group S or Group U occupancy to any occupancy other than Group S or Group U, the lateral force-resisting system of the building shall comply with Section 304.3.1 for the new *risk category*. Where a *change of occupancy* results in a building being assigned to *Risk Category* IV and Seismic Design Category D or F, nonstructural components serving any portion of the building changed to *Risk Category* IV shall comply with the requirements of Section 1613 of the *International Building Code* or shall comply with ASCE 41 using an objective of operational nonstructural performance with the BSE-1N earthquake hazard level.

Exceptions:

1. Where a *change of use* results in a building being reclassified from *Risk Category* I or II to *Risk Category* III and the seismic coefficient, S_{DS}, is less than 0.33, compliance with this section is not required.
2. Where the area of the new occupancy is less than 10 percent of the building area, ~~the occupancy is not changing from a Group S or Group U occupancy,~~ and the new occupancy is not assigned to *Risk Category* IV, compliance with this section is not required. The cumulative effect of occupancy changes over time shall be considered.
3. Unreinforced masonry bearing wall buildings assigned to *Risk Category* III and to Seismic Design Category A or B shall be permitted to use Appendix Chapter A1 of this code.
4. Where the change is from a Group S or Group U occupancy and there is no change of *risk category*, compliance with Section 304.3.2 shall be permitted.

Reason: The current language in 2024 IEBC does not allow any portions of Group U or Group S occupancies to non-Group U or Group S occupancies

without having the entire building satisfy the requirement of section 1613 of CBC. This creates a hardship when only a small portion, such as 10% of the building is converted to non-Group U or Group S occupancies, and it does not drastically change the characteristics of the entire building. For example, if a small office is created within an existing parking garage or portion of an attached garage is converted to an ADU. The change to the exception will allow these small conversions without requiring expensive and unnecessary retrofit of the entire building.

Allowing small, 10% conversions, is consistent with the area limitation of the incidental use that is allowed per section 509.3 of IBC.

509.3 Area limitations. The aggregate floor area of incidental uses shall not occupy more than 10 percent of the building area of the story in which they are located.

Bibliography: Shahen Akelyan, City of Los Angeles with consensus with the Existing Building Code committee of the Structural Engineering Association of Southern California and in collaboration with the Los Angeles tall Building Seismic Design Council.

Cost Impact: Decrease

Estimated Immediate Cost Impact:

-$50,000 to $5,000,000.

Estimated Immediate Cost Impact Justification (methodology and variables):

The proposal will reduce the cost of contraction by not requiring retrofit of the entire building due to change of use of small portion of the building. The reduction in cost will depend on the size and type of the building in question. The reduction will be on the construction cost as well as engineering cost.

The construction cost

The construction cost of the retrofit will depend on the deficiencies of the building, materials, the existing structural systems, the method of the of retrofit.

1. For Wood Frame buildings: the retrofit cost will be between $20/sf to $50/sf
2. For Moment Frame buildings: the retrofit cost will be between $50/sf to $100/sf
3. For Concrete buildings: the retrofit cost will be between $50/sf to $150/sf

The engineering cost

The engineering cost will be the method of analysis. For example, if the engineering will require a performance based design such as non-linier time history analysis, it would require a peer review and increased cost. The cost of the engineering will vary between $5,000 to $100,000

Sources:

1. FEMA 547: Techniques for the Seismic Rehabilitation of Existing Buildings, https://nehrpsearch.nist.gov/static/files/FEMA/PB2008108236.pdf
2. FEMA 156: Typical Cost for Seismic Rehabilitations of Existing Buildings, Volume 1
3. FEMA 157: Typical Cost for Seismic Rehabilitations of Existing Buildings, Volume 12
4. FEMA Benefit Cost Calculator: https://www.fema.gov/grants/tools/benefit-cost-analysis
5. dbs.lacity.org

EB77-25

EB78-25

IEBC: [A] 106.2.3, SECTION 202 (New), SECTION 202, 601.2, 603.1, 604.1, 901.2

Proponents: Grant Ullrich, City of Chicago, representing Self (grant.ullrich@cityofchicago.org)

2024 International Existing Building Code

Revise as follows:

[A] 106.2.3 Means of egress. The construction documents for ~~*Alterations*—Level 2, *Alterations*—Level 3~~ *reconfigured spaces*, *additions* and *changes of occupancy* shall show in sufficient detail the location, construction, size and character of all portions of the means of egress in compliance with the provisions of this code. The construction documents shall designate the number of occupants to be accommodated in every ~~*work area* of every~~ floor where work is to be performed and in all affected rooms and spaces.

Add new definition as follows:

RECONFIGURED SPACE. A newly created room or space or existing room or space where any of the following occur:

1. An increase in floor area.
2. A change from non-habitable to habitable space.
3. A change from non-occupiable to occupiable space.
4. Creation or elimination of an opening connecting two or more stories.
5. An increase in exit access travel distance.
6. An increase in common path of egress travel.
7. Elimination or relocation of an *emergency escape and rescue opening*.
8. An increase in travel distance to toilet facilities.

Revise as follows:

WORK AREA. ~~That~~ The portion or portions of ~~a building~~ an *existing building* consisting of all ~~*reconfigured spaces* as indicated on the construction documents~~ *reconfigured spaces* intended as part of a project or series of related projects in an *existing building*. Work area excludes other portions of the building where incidental work ~~entailed~~ necessitated by the intended work must be performed and portions of the building where work not initially intended by the owner is specifically required by this code.

601.2 Work area. The *work area*, ~~as defined in Chapter 2,~~ including each *reconfigured space*, shall be identified on the construction documents.

603.1 Scope. Level 2 *alterations* include ~~the addition or elimination of any door or window, the reconfiguration or extension of any system, or the installation of any additional equipment, and shall apply~~ *reconfigured space* where the total floor area of the w*ork area* is ~~equal to or~~ less than or equal to 50 percent of the ~~building area~~ total floor area of the *existing building*.

Exception: The movement or addition of nonfixed and movable fixtures, cases, racks, counters and partitions not over 5 feet 9 inches (1753 mm) in height shall not be considered a Level 2 *alteration*.

604.1 Scope. Level 3 *alterations* ~~apply~~ include *reconfigured space* where the total floor area of the *work area* exceeds 50 percent of the ~~*building area*~~total floor area of the *existing building*.

901.2 Compliance. In addition to the provisions of this chapter, work shall comply with all of the requirements of Chapters 7 and 8. The requirements of Sections 802, 803, 804 and 805 shall apply ~~within all~~ throughout the *work areas* whether or not ~~they~~ it includes exits and corridors shared by more than one tenant and regardless of the occupant load.

Exception: Buildings in which the reconfiguration of space affecting exits or shared egress access is exclusively the result of compliance with the accessibility requirements of Section 306.7.1 shall not be required to comply with this chapter.

Reason: One of the greatest challenges of applying the IEBC's work area method is determining what exactly the code intends to encompass as work area. The current definition of work area turns on the meaning of the undefined term “reconfigured spaces.”

When a term is undefined in the IEBC and other I-Codes, it has its “ordinarily accepted meaning[] such as the context implies.” (2024 IEBC § 201.4).

The Merriam-Webster Online Dictionary provides the following definition for “reconfigure[d]”:

> “to rearrange (something) into an altered form, figure, shape, or layout **:** to configure (something) again or in a new way”

This dictionary definition is not particularly helpful.

The 2024 IEBC Commentary suggests that “where a new opening is cut in a wall between rooms . . . only the actual floor area occupied by the columns, beams or walls that are being modified would be included in the “work area.” The Commentary seemingly conflates “reconfigured spaces” with “reconfigured plan areas.”

After a discussion with code officials in several other large jurisdictions, I found none who accepted the IEBC Commentary’s example as a correct reading of “reconfigured space.” (I did speak with one architect who loved the narrow reading in the Commentary!)

Among the code officials I spoke with, there were two alternative readings of “work area.”

One group said that by cutting a new door opening between two existing rooms, the spaces on both sides are always reconfigured. The other group said that in their jurisdictions, the extent of “reconfigured” space was dependent on whether the new opening changed the code requirements applicable to either or both spaces.

This code change proposal is to codify the second reading and add a new definition of “reconfigured space” to the IEBC, which will make determining the “work area” much more consistent and predictable.

The proposed definition of "reconfigured space" encompasses "newly created rooms and spaces" and existing rooms and spaces that undergo one of 8 enumerated changes. The 8 enumerated changes are intended to capture the vast majority of conditions where an alteration may trigger enhanced code requirements.

The balance of this proposal makes coordinating changes to Chapters 6 and 9 to recognize that "total floor area" is an attribute of the "work area," not an equivalent term, and that there is only one "work area" in a given project, even though it may include discontinuous portions of a building.

EXAMPLE:

The following example illustrates how “work area” is to be determined if this code change is adopted (and how many jurisdictions apply it today):

There is a 50,000 square foot single-story office building that is currently subdivided into two tenant spaces: one is 30,000 square feet and one is 20,000 square feet. Both tenant spaces are open-plan professional offices and there will be no change of occupancy. The intended project is to relocate the demising wall so that the two tenant spaces will be equal in size (25,000 square feet each), with corresponding adjustments to MEP systems in both tenant spaces.

Under this proposal, only the floor area of the tenant space that has increased in floor area is counted as part of the "work area." (None of the other 7 conditions are triggered in the tenant space that is being reduced in floor area.) Because this "work area" is “equal to or less than 50 percent of the building area,” this is a Level 2 alteration. (IEBC 603.1)

Bibliography: “Reconfigure.” *Merriam-Webster.com Dictionary*, Merriam-Webster, https://www.merriam-webster.com/dictionary/reconfigure (Accessed 1/10/2025).

“Work Area.” *2024 IEBC Code and Commentary (Existing Building)*, International Code Council, Inc. (2024).

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal provides a clearer framework for determining what is included in the "work area" for purposes of applying the work area method.

EB79-25

IEBC: 602.1, 603.1, 604.1, 801.1, 801.3, 901.1, 901.2

Proponents: Grant Ullrich, Chair, representing ICC Adaptive Reuse Working Group (grant.ullrich@cityofchicago.org); Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

602.1 Scope. Level 1 *alterations* include the removal and replacement or the covering of existing materials, elements, *equipment or fixtures* using new materials, elements, *equipment or fixtures* that serve the same purpose.Work that is limited to one or more of the following categories shall also be classified as a Level 1 *alteration*:

1. Installation or alteration of mechanical systems or equipment.
2. Installation or alteration of electrical systems or equipment.
3. Installation or alteration of fire protection systems or equipment.
4. Abatement of hazardous materials.
5. Installation or alteration of windows, hardware, operating controls, or signage.
6. The movement or addition of nonfixed and movable fixtures, cases, racks, counters and partitions not over 5 feet 9 inches (1753 mm) in height.
7. Work that is for the primary purpose of increasing the degree of accessibility or usability for individuals with disabilities or that is required by Section 306.7.1.

603.1 Scope. Level 2 *alterations* include the addition or elimination of any door or window, the reconfiguration or extension of any system, or the installation of any additional equipment, and shall apply where the w*ork area* is equal to or less than 50 percent of the building area.

Exception: ~~The movement or addition of nonfixed and movable fixtures, cases, racks, counters and partitions not over 5 feet 9 inches (1753 mm) in height shall not be considered a Level 2 *alteration*.~~ Work classified as a Level 1 *alteration* in accordance with Section 602.1.

604.1 Scope. Level 3 *alterations* apply where the *work area* exceeds 50 percent of the *building area*.

Exception: Work classified as a Level 1 *alteration* in accordance with Section 602.1.

801.1 Scope. Level 2 *alterations* as described in Section 603 shall comply with the requirements of this chapter.

~~**Exception:** Buildings in which the reconfiguration is exclusively the result of compliance with the accessibility requirements of Section 306.7.1 shall be permitted to comply with Chapter 7.~~

Delete without substitution:

~~**801.3 System installations.** Requirements related to *work area* are not applicable where the Level 2 *alterations* are limited solely to one or more of the following:~~

1. ~~Mechanical systems, electrical systems, fire protection systems and abatement of hazardous materials.~~
2. ~~Windows, hardware, operating controls, electrical outlets and signs.~~
3. ~~*Alterations* undertaken for the primary purpose of increasing the accessibility of a *facility*.~~

901.1 Scope. Level 3 *alterations* as described in Section 604 shall comply with the requirements of this chapter.

Revise as follows:

901.2 Compliance. In addition to the provisions of this chapter, work shall comply with all of the requirements of Chapters 7 and 8. The requirements of Sections 802, 803, 804 and 805 shall apply within all *work areas* whether or not they include exits and corridors shared by more than one tenant and regardless of the occupant load.

~~**Exception:** Buildings in which the reconfiguration of space affecting exits or shared egress access is exclusively the result of compliance with the accessibility requirements of Section 306.7.1 shall not be required to comply with this chapter.~~

Reason: When using the IEBC Work Area Compliance Method for alterations, it is essential to correctly classify the level of alteration work being performed. Over several code development cycles, several provisions have been inserted that reduce the classification of certain types of alteration work from Level 2 or 3 to Level 1. Because of the scattered nature of these provisions, they are sometimes difficult to locate and to apply consistently. This proposal replaces the existing provisions with a single exception in Chapter 6 (the scoping chapter for the Work Area Compliance Method.)

New exception items 1 through 4 replace current Section 801.3, item 1.

New exception item 5 replaces current Section 801.3, item 2.

New exception item 6 replaces the current exception to Section 603.1.

New exception item 7 replaces the current exceptions to Sections 801.1 and 901.2.

This proposal is submitted by the ICC Adaptive Reuse Working Group (ARWG) and the ICC Building Code Action Committee (BCAC)

ARWG was convened in 2024 by ICC Government Relations to explore opportunities to facilitate the reuse of existing nonresidential buildings for multi-family residential uses through better training on use of the International Codes for adaptive reuse work and potential amendments to the International Codes. ARWG held numerous virtual meetings in 2024 and met in person at the 2024 annual business meeting in Long Beach. ARWG consists of code officials, design professionals, and other interested parties.

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This change is editorial. It relocates related provisions to make it easier to consistently classify work when using the work area compliance method.

EB79-25

EB80-25

IEBC: CHAPTER 7, SECTION 701, 702.7, [FG] 702.7.1, SECTION 703, SECTION 702, 702.1, 702.2, 702.3, SECTION 704, 702.4, 702.5, 702.5.1, 702.6, SECTION 708, SECTION 705, SECTION 706, 707, CHAPTER 8, SECTION 801, SECTION 802, 802.6, 803.1.1, SECTION 803 (New), 802.4, 802.4.1, SECTION 803, SECTION 804, 802.5, 802.5.1, 802.5.2, SECTION 809, SECTION 805, SECTION 806, SECTION 807, SECTION 808, CHAPTER 9, SECTION 901, SECTION 902, SECTION 903, SECTION 904 (New), 903.3, SECTION 904, SECTION 908, 908.1, 908.1.1, 908.1.2, SECTION 905, SECTION 907 (New), 903.4, SECTION 907, SECTION 906

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

CHAPTER 7
ALTERATIONS—LEVEL 1

SECTION 701
GENERAL

Revise as follows:

~~**702.7**~~ **701.4 Materials and methods.** New work shall comply with the materials and methods requirements in the *International Building Code*, International Energy Conservation Code, *International Mechanical Code* and *International Plumbing Code*, as applicable, that specify material standards, detail of installation and connection, joints, penetrations and continuity of any element, component or system in the building.

[FG] ~~**702.7.1**~~ **701.4.1 International Fuel Gas Code.** The following sections of the *International Fuel Gas Code* shall constitute the fuel gas materials and methods requirements for Level 1 *alterations*.

1. Chapter 3, entitled “General Regulations,” except Sections 303.7 and 306.
2. Chapter 4, entitled “Gas Piping Installations,” except Sections 401.8 and 402.3.
   2.1. Sections 401.8 and 402.3 shall apply where the work being performed increases the load on the system such that the existing pipe does not meet the size required by code. Existing systems that are modified shall not require resizing as long as the load on the system is not increased and the system length is not increased even if the altered system does not meet code minimums.
3. Chapter 5, entitled “Chimneys and Vents.”
4. Chapter 6, entitled “Specific Appliances.”

SECTION ~~703~~ 702
FIRE PROTECTION SYSTEMS

SECTION ~~702~~ 703
INTERIOR FINISHES
~~BUILDING ELEMENTS AND MATERIALS~~

~~**702.1**~~ **703.1 Interior finishes.** Newly installed interior wall and ceiling finishes shall comply with Chapter 8 of the *International Building Code*.

~~**702.2**~~ **703.2 Interior floor finish.** New interior floor finish, including new carpeting used as an interior floor finish material, shall comply

with Section 804 of the *International Building Code*.

~~702.3~~ 703.3 **Interior trim.** Newly installed interior trim materials shall comply with Section 806 of the *International Building Code*.

SECTION 704
MEANS OF EGRESS

~~702.4~~ 704.4 **Window fall prevention .** In Group R-2 or R-3 buildings containing dwelling units and one- and two-family dwellings and townhouses regulated by the *International Residential Code*, window opening control devices or other window fall prevention devices complying with ASTM F2090 shall be installed where an existing window is replaced and where all of the following apply to the replacement window:

1. The window is operable.
2. One of the following applies:
   2.1. The window replacement includes replacement of the sash and frame.
   2.2. The window replacement includes the sash only where the existing frame remains.
3. One of the following applies:
   3.1. In Group R-2 or R-3 buildings containing dwelling units, the bottom of the clear opening of the window opening is at a height less than 36 inches (915 mm) above the finished floor.
   3.2. In one- and two-family dwellings and townhouses regulated by the *International Residential Code*, the bottom of the clear opening of the window opening is at a height less than 24 inches (610 mm) above the finished floor.
4. The window will permit openings that will allow passage of a 4-inch-diameter (102 mm) sphere when the window is in its largest opened position.
5. The vertical distance from the bottom of the clear opening of the window opening to the finished grade or other surface below, on the exterior of the building, is greater than 72 inches (1829 mm).

Exception:

Operable windows where the bottom of the clear opening of the window opening is located more than 75 feet (22 860 mm) above the finished grade or other surface below, on the exterior of the room, space or building, and that are provided with window fall prevention devices that comply with ASTM F2006.

~~702.5~~ 704.5 **Replacement window for emergency escape and rescue openings.** Where windows are required to provide *emergency escape and rescue openings* in Group R-2 and R-3 occupancies and one- and two-family dwellings and townhouses regulated by the *International Residential Code*, replacement windows shall be exempt from the requirements of Section 1031.3 of the *International Building Code* and Section R310.2 of the *International Residential Code*, provided that the replacement window meets the following conditions:

1. The replacement window is the manufacturer's largest standard size window that will fit within the existing frame or existing rough opening. The replacement window shall be permitted to be of the same operating style as the existing window or a style that provides for an equal or greater window opening area than the existing window.
2. Where the replacement window is part of a *change of occupancy* it shall comply with Section 1011.5.6.

~~702.5.1~~ 704.5.1 **Control devices.** Window opening control devices or fall prevention devices complying with ASTM F2090 shall be permitted for use on windows required to provide *emergency escape and rescue openings.* After operation to release the control device allowing the window to fully open, the control device shall not reduce the net clear opening area of the window unit. *Emergency escape and rescue openings* shall be operational from the inside of the room without the use of keys or tools.

~~702.6~~ 704.6 **Bars, grilles, covers or screens.** Bars, grilles, covers, screens or similar devices are permitted to be placed over *emergency escape and rescue openings*, bulkhead enclosure or window wells that serve such openings, provided all of the following conditions are met:

1. The minimum net clear opening size complies with the code that was in effect at the time of construction.
2. Such devices shall be releasable or removable from the inside without the use of a key, tool or force greater than that which is required for normal operation of the escape and rescue opening.
3. Where such devices are installed, they shall not reduce the net clear opening of the *emergency escape and rescue openings*.
4. Smoke alarms shall be installed in accordance with Section 907.2.11 of the *International Building Code*.

SECTION ~~708~~ 705
ENERGY CONSERVATION

SECTION ~~705~~ 706
REROOFING

SECTION ~~706~~ 707
STRUCTURAL

SECTION ~~707~~ 708
ELECTRICAL

CHAPTER 8
ALTERATIONS—LEVEL 2

SECTION 801
GENERAL

SECTION 802
~~BUILDING ELEMENTS AND MATERIALS~~ FIRE AND SMOKE PROTECTION SYSTEMS

~~802.6~~ 802.4 **Fire-resistance ratings.** Where *approved* by the *code official*, buildings where an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 of the *International Building Code* has been added, and the building is now sprinklered throughout, the required fire-resistance ratings of building elements and materials shall be permitted to meet the requirements of the current building code. The building is required to meet the other applicable requirements of the *International Building Code*.

Plans, investigation and evaluation reports, and other data shall be submitted indicating which building elements and materials the applicant is requesting the *code official* to review and approve for determination of applying the current building code fire-resistance ratings. Any special construction features, including fire-resistance-rated assemblies and smoke-resistive assemblies, conditions of occupancy, means-of-egress conditions, fire code deficiencies, *approved* modifications or *approved* alternative materials, design and methods of construction, and equipment applying to the building that impact required fire-resistance ratings shall be identified in the evaluation reports submitted.

~~803.1.1~~802.5 **Corridor ratings.** Where an *approved* automatic sprinkler system is installed throughout the story, the required fire-resistance rating for any corridor located on the story shall be permitted to be reduced in accordance with the *International Building*

Code. In order to be considered for a corridor rating reduction, such system shall provide coverage for the stairway landings serving the floor and the intermediate landings immediately below.

Add new text as follows:

SECTION 803
INTERIOR FINISHES

Revise as follows:

~~802.4~~ 803.1 **Interior finish.** The interior finish and trim of walls and ceilings in exits and corridors in any *work area* shall comply with the requirements of the *International Building Code*.

Exception: Existing materials that do not comply with the requirements of the International Building Code shall be permitted to be treated with an *approved* fire-retardant coating in accordance with the manufacturer's instructions to achieve the required classification. Compliance with this section shall be demonstrated by testing the fire-retardant coating on the same material and achieving the required performance. Where the same material is not available, testing on a similar material shall be permitted.

~~802.4.1~~ 803.2 **Supplemental interior finish requirements.** Where the *work area* on any floor exceeds 50 percent of the floor area, Section ~~802.4~~ 803.1 shall apply to the interior finish and trim in exits and corridors serving the *work area* throughout the floor.

Exception: Interior finish within tenant spaces that are entirely outside the *work area*.

SECTION ~~803~~ 804
~~FIRE PROTECTION~~AUTOMATIC SPRINKLER SYSTEMS AND FIRE ALARM AND DETECTION SYSTEMS

SECTION ~~804~~ 805
MEANS OF EGRESS

~~802.5~~ 805.14 **Guards.** The requirements of Sections ~~802.5.1~~ 805.14.3.1 and ~~802.5.2~~ 805.14.3.2 shall apply in all *work areas*.

~~802.5.1~~ 805.14.3.1 **Minimum requirement.** Every portion of a floor, such as a balcony or a loading dock, that is more than 30 inches (762 mm) above the floor or grade below and is not provided with guards, or those in which the existing guards are judged to be in danger of collapsing, shall be provided with guards.

~~802.5.2~~ 805.14.3.2 **Design.** Where there are no guards or where existing guards must be replaced, the guards shall be designed and installed in accordance with the *International Building Code*.

SECTION ~~809~~ 806
ENERGY CONSERVATION

SECTION ~~805~~ 807
STRUCTURAL

SECTION ~~806~~ 808
ELECTRICAL

SECTION ~~807~~ 809
MECHANICAL

SECTION ~~808~~ 810
PLUMBING

CHAPTER 9
ALTERATIONS—LEVEL 3

SECTION 901
GENERAL

SECTION 902
SPECIAL USE AND OCCUPANCY

SECTION 903
~~BUILDING ELEMENTS AND MATERIALS~~ FIRE PROTECTION SYSTEMS

Add new text as follows:

SECTION 904
INTERIOR FINISHES

Revise as follows:

~~903.3~~ 904.1 **Interior finish.** Interior finish in exits serving the *work area* shall comply with Section 802.4 between the highest floor on which there is a *work area* to the floor of exit discharge.

SECTION ~~904~~ 905
~~FIRE PROTECTION~~ AUTOMATIC SPRINKLER SYSTEMS AND FIRE ALARM AND DETECTION SYSTEMS

Delete without substitution:

~~SECTION 908~~
~~EMERGENCY RESPONDER COMMUNICATIONS ENHANCEMENT SYSTEM COVERAGE~~

Revise as follows:

~~908.1~~ 904.3 **Emergency responder communication enhancement system coverage.** The *existing building* shall undergo an evaluation of the emergency responder communication signal strength and coverage area within the entire building in accordance with Sections ~~908.1.1~~ 904.3.1 and ~~908.1.2~~ 904.3.2.

Exception: Where it is determined by the fire *code official* that the emergency responder communication enhancement system

(ERCES) is not needed.

~~908.1.1~~ **904.3.1 Evaluation.** The evaluation shall determine the current signal strength and coverage capabilities of the public safety communication systems utilized by the jurisdiction, measured at the exterior of the building.

~~908.1.2~~ **904.3.2 Compliance.** The evaluation report shall be submitted for approval by the fire code official and the frequency license holder. Where the coverage area, signal strength or DAQ does not comply with Section 510 of the *International Fire Code*, the *existing building* shall be provided with ERCES coverage. The fire code official is authorized to establish the timeframe for such installation or modification.

SECTION ~~905~~ 906
MEANS OF EGRESS

Add new text as follows:

SECTION 907
INTERIOR ENVIRONMENTS

Revise as follows:

~~903.4~~ **907.1 Enhanced classroom acoustics.** In Group E occupancies, where the *work area* is a Level 3 *alteration*, enhanced classroom acoustics shall be provided in all classrooms with a volume of 20,000 cubic feet (565 m^3) or less. Enhanced classroom acoustics shall comply with the reverberation time in Section 808 of ICC A117.1.

SECTION ~~907~~ 908
ENERGY CONSERVATION

SECTION ~~906~~ 909
STRUCTURAL

Reason: The itent of this proposal is similar to the more extensive reordering proposed for Chapter 3 and 10. This follows the order of the IBC with the idea that this order is familiar and it will be easier for people to find requirements and use the IEBC.

Not all sections are shown. If the main section is renumbered, it is assumed the the sections underneath will also be renumbered. The subsections shown are those proposed to be relocated. Over time it appears that many proposals were dropped into the first section or dropped in at the end. Nothing requirements have been deleted - just regrouped.

Fire protection systems are the requirements for a fire-resistance rating. If smoke protections systems are listed, that is also included in the title. This is related to IBC Chapter 7.

Interior finishes is Chapter 8.

Automatic sprinklers and fire alarm and detections systems are Chapter 9 related

Means of egress - including EERO and guards (including window fall devices) are IBC Chapter 10.

Energy conservation is IBC Chapter 13, so this is moved up in front of the structural provisions.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is a reorganization of sections. There are no changes to requirements.

EB80-25

EB81-25

IEBC: SECTION 707 (New), 707.1 (New), [FG] 702.7.1

Proponents: Andrew Bevis, Chair, representing Plumbing, Mechanical and Fuel Gas Code Action Committee (pmgcac@iccsafe.org); Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Add new text as follows:

SECTION 707
PLUMBING, MECHANICAL AND FUEL GAS

707.1 Materials and methods. New work shall comply with the materials and methods requirements in the *International Residential Code*, *International Mechanical Code*, *International Plumbing Code* and the *International Fuel Gas Code*, as applicable, that specify material standards, detail of installation and connection, joints, penetrations and continuity of any element, component or system in the building.

Revise as follows:

[FG] ~~702.7.1~~ 707.2 International Fuel Gas Code. The following sections of the *International Fuel Gas Code* shall constitute the fuel gas materials and methods requirements for Level 1 *alterations*.

1. Chapter 3, entitled “General Regulations,” except Sections 303.7 and 306.
2. Chapter 4, entitled “Gas Piping Installations,” except Sections 401.8 and 402.3.
   2.1. Sections 401.8 and 402.3 shall apply where the work being performed increases the load on the system such that the existing pipe does not meet the size required by code. Existing systems that are modified shall not require resizing as long as the load on the system is not increased and the system length is not increased even if the altered system does not meet code minimums.
3. Chapter 5, entitled “Chimneys and Vents.”
4. Chapter 6, entitled “Specific Appliances.”

Reason: Plumbing, mechanical, and fuel gas requirements get lost when placed in the building elements and materials section of Section 702. These requirements should fall under the general requirements to ensure that the PMG requirements are not missed by the user of the code.

PMGCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held numerous virtual meetings open to any interested party. Related documents and reports are posted on the PMGCAC website at PMGCAC webpage.

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is not a technical change as this simple relocates sections in the same chapter.

EB82-25

IEBC: [BS] 706.1, [BS] 805.1, [BS] 706.2, [BS] 805.2, [BS] 805.3, [BS] 805.4, [BS] 706.3, [BS] 706.3.1, [BS] 706.3.2, SECTION 805

Proponents: Grant Ullrich, Chair, representing ICC Adaptive Reuse Working Group (grant.ullrich@cityofchicago.org)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

Delete without substitution:

~~**[BS] 706.1 General.** Where *alteration* work includes replacement of equipment that is supported by the building or where a reroofing permit is required, the provisions of this section shall apply.~~

Revise as follows:

[BS] ~~805.1~~ 706.1 General. Structural elements and systems within buildings undergoing ~~Level 2~~ *alterations* shall comply with this section.

Delete without substitution:

~~**[BS] 706.2 Addition or replacement of roofing or replacement of equipment.** Any existing gravity load-carrying structural element for which an *alteration* causes an increase in design dead, live or snow load, including snow drift effects, of more than 5 percent shall be replaced or altered as needed to carry the gravity loads required by the *International Building Code* for new structures.~~

~~**Exceptions:**~~

1. ~~Buildings of Group R occupancy with not more than five dwelling or sleeping units used solely for residential purposes where the altered building complies with the conventional light frame construction methods of the *International Building Code* or the provisions of the *International Residential Code*.~~
2. ~~Buildings in which the increased dead load is due entirely to the addition of a second layer of roof covering weighing 3 pounds per square foot (0.1437 kN/m^2) or less over an existing single layer of roof covering.~~

Revise as follows:

[BS] ~~805.2~~ 706.2 Existing structural elements carrying gravity loads. Any existing gravity load-carrying structural element for which an *alteration* causes an increase in design dead, live or snow load, including snow drift effects, of more than 5 percent shall be replaced or altered as needed to carry the gravity loads required by the *International Building Code* for new structures. Any existing gravity load-carrying structural element whose gravity load-carrying capacity is decreased as part of the *alteration* shall be shown to have the capacity to resist the applicable design dead, live and snow loads, including snow drift effects, required by the *International Building Code* for new structures.

Exceptions:

1. Buildings of Group R occupancy with not more than five dwelling or sleeping units used solely for residential purposes where the altered building complies with the conventional light-frame construction methods of the *International Building Code* or the provisions of the *International Residential Code*.
2. Buildings in which the increased dead load is attributable to the addition of a second layer of roof covering weighing 3 pounds per square foot (0.1437 kN/m^2) or less over an existing single layer of roof covering.

[BS] ~~805.3~~ 706.3 Existing structural elements resisting lateral loads. Except as permitted by Section ~~805.4~~ 706.4, where the *alteration*

increases design lateral loads, or where the alteration results in prohibited structural irregularity as defined in ASCE 7, or where the *alteration* decreases the capacity of any existing lateral load-carrying structural element, the lateral force-resisting system of the altered building or structure shall meet the requirements of Section 1609 of the *International Building Code* and Section 304.3.2 of this code.

Exceptions:

1. Any existing lateral load-carrying structural element whose demand-capacity ratio with the *alteration* considered is not more than 10 percent greater than its demand-capacity ratio with the *alteration* ignored shall be permitted to remain unaltered. For purposes of calculating demand-capacity ratios, the demand shall consider applicable load combinations with design lateral loads or forces in accordance with Section 1609 of the *International Building Code* and Section 304.3.1 or 304.3.2 of this code. The same methodology shall be used for the altered and unaltered structures. For purposes of this exception, comparisons of demand-capacity ratios and calculation of design lateral loads, forces and capacities shall account for the cumulative effects of *additions* and *alterations* since original construction. When calculating demand-capacity ratios for wind, the date of original construction shall be permitted to be taken as the date of completion of a prior *addition*, *alteration* or *repair* in compliance with Section 1609 of the *International Building Code* or the code wind forces in effect at the time. When calculating demand-capacity ratios for earthquake, the date of original construction shall be permitted to be taken as the date of completion of a prior *addition*, *alteration* or *repair* in compliance with Section 304.3.1 or 304.3.2 Item 1 or 3 or the full or reduced seismic forces in effect at the time.
2. Buildings in which the increase in the demand-capacity ratio is due entirely to the addition of rooftop-supported mechanical equipment individually having an operating weight less than 400 pounds (181.4 kg) and where the total additional weight of all rooftop equipment placed after initial construction of the building is less than 10 percent of the roof dead load. For purposes of this exception, “roof” shall mean the roof level above a particular story.
3. Increases in the demand-capacity ratio due to lateral loads from seismic forces need not be evaluated for the installation of rooftop *photovoltaic panel systems* where the additional roof dead load due to the system, including ballast where applicable, does not exceed 5 pounds per square foot (psf) (0.2394 kN/m^2) and does not exceed 10 percent of the dead load of the existing roof.

[BS] ~~805.4~~ 706.4 Voluntary lateral force-resisting system alterations. Structural *alterations* that are intended exclusively to improve the lateral force-resisting system and are not required by other sections of this code shall not be subject to the structural requirements of this chapter ~~or Chapter 7~~, provided that the following conditions are met:

1. With the *alteration* complete, the capacity of existing structural systems to resist forces is not reduced.
2. New structural elements are detailed and connected to existing or new structural elements as required by the selected design criteria.

   Exception: New lateral force-resisting systems designed in accordance with the *International Building Code* are permitted to be of a type designated as "Ordinary" or "Intermediate" where ASCE 7 Table 12.2-1 states these types of systems are not permitted.
3. Supports and attachments for nonstructural elements removed and reinstalled to facilitate the work comply with the *International Building Code* for new construction.
4. The *alterations* do not create a structural irregularity as defined in ASCE 7 or make an existing structural irregularity more severe.

   Exception: Condition 4 need not be satisfied where the work complies with Section 304.3.2 Item 3.

[BS] ~~706.3~~ 706.5 Additional requirements for ~~reroof permits~~ reroofing. The requirements of this section shall apply to ~~alteration~~ *reroofing* work ~~requiring reroof permits~~ not classified as a *repair*.

[BS] ~~706.3.1~~ 706.5.1 Bracing for unreinforced masonry bearing wall parapets. Where a permit is issued for *reroofing* for more than 25 percent of the roof area of a building assigned to Seismic Design Category D, E or F that has parapets constructed of unreinforced masonry, the work shall comply with Section 304.3.2 by evaluation of the existing condition or by installation of parapet bracing.

[BS] ~~706.3.2~~ 706.5.2 Roof diaphragms resisting wind loads in high-wind regions. Where roofing materials are removed from more

than 50 percent of the roof diaphragm or section of a building located where the basic wind speed, *V*, is greater than 130 mph (58 m/s), in accordance with Figure 1609.3(2) of the *International Building Code*, roof diaphragms, connections of the roof diaphragm to roof framing members, and roof-to-wall connections shall be evaluated for the wind loads specified in the *International Building Code*, including wind uplift. If the diaphragms and connections in their current condition are not capable of resisting 75 percent of those wind loads, they shall be replaced or strengthened in accordance with the loads specified in the *International Building Code.*

Exception: Buildings that have been demonstrated to comply with the wind load provisions in ASCE 7—88 or later editions.

Delete without substitution:

~~SECTION 805~~
~~STRUCTURAL~~

Reason: According to Section 602.1, “Level 1 alterations include the removal and replacement or the covering of existing materials, elements, equipment or fixtures using new materials, elements, equipment or fixtures that serve the same purpose.” Based on this scope, many but not all Level 1 alterations will have negligible structural impact. In some cases, however, new elements “serving the same purpose” may have a significant structural impact if they do not match the weight and structural performance of the elements they replace.

Currently, Chapter 7 does not address what to do if elements replaced as part of a Level 1 alteration have a reduced gravity- or lateral-load-carrying capacity relative to what previously existed. This code change addresses this gap by relocating the language that addresses these circumstances from Chapter 8 to Chapter 7. This proposal also recognizes that some voluntary improvements to lateral force resisting systems do not clearly fit within the scope of Level 2 alterations and similarly relocates the provision on this topic from Chapter 8 to Chapter 7. Finally, this provision renumbers the subsection addressing reroofing, and eliminates any confusion about whether structural requirements are triggered (or avoided) by a jurisdiction's roof permitting requirements and exceptions.

This proposal was developed based on feedback received in response to proposal 10997 (CC #EB79-25), which clarifies the types of work that are classified as Level 1 alterations, however the two proposals are independent.

This proposal is submitted with the ICC Adaptive Reuse Working Group (ARWG).

ARWG was convened in 2024 by ICC Government Relations to explore opportunities to facilitate the reuse of existing nonresidential buildings for multi-family residential uses through better training on use of the International Codes for adaptive reuse work and potential amendments to the International Codes. ARWG held numerous virtual meetings in 2024 and met in person at the 2024 annual business meeting in Long Beach. ARWG consists of code officials, design professionals, and other interested parties.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This change provides clarification and additional guidance on how structural requirements apply to Level 1 alteration work.

EB82-25

EB83-25

IEBC: 802.1, 803.1, 804.1

Proponents: Grant Ullrich, City of Chicago, representing Self (grant.ullrich@cityofchicago.org)

2024 International Existing Building Code

Revise as follows:

802.1 Scope. The requirements of this section are limited to ~~*work areas* in which Level 2 *alterations* are being performed~~ the *work area* except where specifically scoped to apply ~~and shall apply~~ beyond the *work area* ~~where specified~~.

803.1 Scope. The requirements of this section ~~shall be~~ are limited to the *work area* except where specifically scoped to apply ~~*work areas* in which Level 2 *alterations* are being performed, and where specified they shall apply throughout the floor on which the *work areas* are located or otherwise~~ beyond the *work area*.

804.1 Scope. The requirements of this section ~~shall be~~ are limited to *work areas* that include exits or corridors shared by more than one tenant ~~within the *work area* in which Level 2 *alterations* are being performed, and where specified they shall apply throughout the floor on which the *work areas* are located or otherwise~~ except where specifically scoped to apply beyond the *work area*.

Reason: One of the key principles of the work area compliance method is focusing requirements to upgrade existing conditions to the area where work is performed, with limited and specific exceptions. The scoping language for three sections of Chapter 8 (802, 803, and 804) provides that the requirements of these sections apply beyond the work area "where specified." This proposal standardizes the wording across the three scoping provisions, and also clarifies that requirements will only apply "beyond the work area" when "specifically scoped" in a subsection.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

The change improves the clarity of three related provisions in Chapter 8 and makes the language consistent across the 3 sections. There is no substantive change in requirements.

EB83-25

EB84-25

IEBC: [A] 106.2.3, SECTION 202 (New), 802.2.1, 802.2.2, 802.2.3, 802.4.1, 803.1, 803.1.1, 803.2.1, 803.2.1.1, 803.2.2, 803.2.5, 803.3, 803.4.2, 804.1, 804.5.1.1, TABLE 804.5.1.1(1), 804.6.2.1, 804.6.3, 804.6.3.1, 804.6.4.1, 804.7.3.1, 804.7.4, 804.8, 804.9.2, 804.10.2, 804.13, 804.14, 902.1, 902.1.1, 902.1.2, 903.1, 903.3, 904.2.1, 905.2, 905.3, 1009.1, 1011.7.3, 1011.8.2, 1201.3, 1305.2.2.2, 1305.2.3.2, 1305.2.5, TABLE 1305.2.5, 1305.2.6, TABLE 1305.2.6(1), 1305.2.8.1, 1305.2.10.1, 1305.2.14, 1305.2.14.1, 1305.2.19, TABLE 1306.1

Proponents: Grant Ullrich, Chair, representing ICC Adaptive Reuse Working Group (grant.ullrich@cityofchicago.org); Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

[A] 106.2.3 Means of egress. The construction documents for *Alterations*—Level 2, *Alterations*—Level 3, *additions* and *changes of occupancy* shall show in sufficient detail the location, construction, size and character of all portions of the means of egress in compliance with the provisions of this code. The construction documents shall designate the number of occupants to be accommodated in every *work area* of every ~~floor~~ *story* and in all affected rooms and spaces.

Add new definition as follows:

EXIT DISCHARGE, LEVEL OF. The *story* at the point at which an exit terminates and an exit discharge begins.
GRADE PLANE. A reference plane representing the average of finished ground level adjoining the building at exterior walls. Where the finished ground level slopes away from the exterior walls, the reference plane shall be established by the lowest points within the area between the building and the lot line or, where the lot line is more than 6 feet (1829 mm) from the building, between the building and a point 6 feet (1829 mm) from the building.
STORY. That portion of a building included between the upper surface of a floor and the upper surface of the floor or roof next above. A story is measured as the vertical distance from top to top of two successive tiers of beams or finished floor surfaces and, for the topmost story, from the top of the floor finish to the top of the ceiling joists or, where there is not a ceiling, to the top of the roof rafters.
STORY ABOVE GRADE PLANE. Any *story* having its finished floor surface entirely above *grade plane*, or in which the finished surface of the floor next above is:

1. More than 6 feet (1829 mm) above *grade plane*; or
2. More than 12 feet (3658 mm) above the finished ground level at any point.

Revise as follows:

802.2.1 Existing vertical openings. Existing interior vertical openings connecting two or more ~~floors~~ *stories* shall be enclosed with *approved* assemblies having a fire-resistance rating of not less than 1 hour with *approved* opening protectives.

Exceptions:

1. Where vertical opening enclosure is not required by the *International Building Code* or the *International Fire Code*.
2. Interior vertical openings other than stairways may be blocked at the floor and ceiling of the *work area* by installation of not less than 2 inches (51 mm) of solid wood or equivalent construction.

3. The enclosure shall not be required where~~:~~

~~3.1. Connecting the main floor and mezzanines; or~~

~~3.2.~~ ~~All~~ all of the following conditions are met:

3.~~2.~~1. The communicating area has a low-hazard occupancy or has a moderate-hazard occupancy that is protected throughout by an automatic sprinkler system.

3.~~2.~~2. The lowest or next-to-the-lowest ~~level~~ *story* is a ~~street floor~~ *level of exit discharge*.

3.~~2.~~3. The entire area is open and unobstructed in a manner such that it is reasonable to assume that a fire in any part of the interconnected spaces will be readily obvious to all of the occupants.

3.~~2.~~4. Exit capacity is sufficient to provide egress simultaneously for all occupants of all levels by considering all areas to be a single ~~floor area~~ *story* for the determination of required exit capacity.

3.~~2.~~5. Each ~~floor level~~ *story*, considered separately, has not less than one-half of its individual required exit capacity provided by an exit or exits leading directly out of that ~~level~~ *story* without having to traverse another communicating ~~floor level~~ *story* or be exposed to the smoke or fire spreading from another communicating ~~floor level~~ *story* .

4. In Group A occupancies, a minimum 30-minute enclosure shall be provided to protect all vertical openings ~~not exceeding~~ connecting no more than three stories.

5. In Group B occupancies, a minimum 30-minute enclosure shall be provided to protect all vertical openings ~~not exceeding~~ connecting no more than three stories. This enclosure, or the enclosure specified in Section 802.2.1, shall not be required in the following locations:

5.1. Buildings not exceeding 3,000 square feet (279 m^2) per ~~floor~~ *story*.

5.2. Buildings protected throughout by an *approved* automatic fire sprinkler system.

6. In Group E occupancies, the enclosure shall not be required for vertical openings~~not exceeding~~ connecting no more than three stories where the building is protected throughout by an *approved* automatic fire sprinkler system.

7. In Group F occupancies, the enclosure shall not be required in the following locations:

7.1. Vertical openings ~~not exceeding~~ connecting no more than three stories.

7.2. Special-purpose occupancies where necessary for manufacturing operations and direct access is provided to not fewer than one protected stairway.

7.3. Buildings protected throughout by an *approved* automatic sprinkler system.

8. In Group H occupancies, the enclosure shall not be required for vertical openings~~not exceeding~~ connecting no more than three stories where necessary for manufacturing operations and every ~~floor level~~ *story* has direct access to not fewer than two remote enclosed stairways or other *approved* exits.

9. In Group M occupancies, a minimum 30-minute enclosure shall be provided to protect all vertical openings ~~not exceeding~~ connecting no more than three stories. This enclosure, or the enclosure specified in Section 802.2.1, shall not be required in the following locations:

9.1. Openings connecting only two ~~floor levels~~ *stories*.

9.2. Occupancies protected throughout by an *approved* automatic sprinkler system.

10. In Group R-1 occupancies, the enclosure shall not be required for vertical openings ~~not exceeding~~ connecting no more than three stories in the following locations:

    10.1. Buildings protected throughout by an *approved* automatic sprinkler system.

    10.2. Buildings with less than 25 dwelling units or sleeping units where every sleeping room above the second ~~floor~~ *story above grade plane* is provided with direct access to a fire escape or other *approved* second exit by means of an *approved* exterior door or window having a sill height of not greater than 44 inches (1118 mm) and where both of the following conditions are met:

        10.2.1. Any exit access corridor exceeding 8 feet (2438 mm) in length that serves two means of egress, one of which is an unprotected vertical opening, shall have not fewer than one of the means of egress separated from the vertical opening by a 1-hour fire barrier.

        10.2.2. The building is protected throughout by an automatic fire alarm system, installed and supervised in accordance with the *International Building Code*.

11. In Group R-2 occupancies, a minimum 30-minute enclosure shall be provided to protect all vertical openings ~~not exceeding~~ connecting no more than three stories. This enclosure, or the enclosure specified in Section 802.2.1, shall not be required in the following locations:

    11.1. Vertical openings not exceeding two stories with not more than four dwelling units per ~~floor~~ *story*.

    11.2. Buildings protected throughout by an *approved* automatic sprinkler system.

    11.3. Buildings with not more than four dwelling units per ~~floor~~ *story* where every sleeping room above the second ~~floor~~ *story above grade plane* is provided with direct access to a fire escape or other *approved* second exit by means of an *approved* exterior door or window having a sill height of not greater than 44 inches (1118 mm) and the building is protected throughout by an automatic fire alarm system complying with Section 803.4.

12. One- and two-family dwellings.

13. Group S occupancies where connecting ~~not~~ no more than two ~~floor levels~~ *stories* or where connecting ~~not~~ no more than three ~~floor levels~~ *stories* and the structure is equipped throughout with an *approved* automatic sprinkler system.

14. Group S occupancies where vertical opening protection is not required for open parking garages and ramps.

802.2.2 Supplemental shaft and floor opening enclosure requirements. Where the *work area* on ~~any floor~~ a *story* exceeds 50 percent of ~~that~~ the floor area of that *story*, the enclosure requirements of Section 802.2 shall apply to vertical openings other than stairways throughout the ~~floor~~ *story*.

Exception: Vertical openings located in tenant spaces that are entirely outside the *work area*.

802.2.3 Supplemental stairway enclosure requirements. Where the *work area* on ~~any floor~~ a *story* exceeds 50 percent of ~~that~~ the floor area of the *story*, stairways that are part of the means of egress serving the *work area* shall, at a minimum, be enclosed with smoketight construction on the highest *story* in the *work area* ~~floor~~ and all ~~floors~~ *stories* below.

Exception: Where stairway enclosure is not required by the *International Building Code* or the *International Fire Code*.

802.4.1 Supplemental interior finish requirements. Where the *work area* on ~~any floor~~ a *story* exceeds 50 percent of the floor area of the *story*, Section 802.4 shall apply to the interior finish and trim in exits and corridors serving the *work area* throughout the ~~floor~~ *story*.

Exception: Interior finish within tenant spaces that are entirely outside the *work area*.

803.1 Scope. The requirements of this section shall be limited to *work areas* in which Level 2 *alterations* are being performed, and where specified they shall apply throughout the ~~floor~~ *story* on which the *work areas* are located or otherwise beyond the *work area*.

803.1.1 Corridor ratings. Where an *approved* automatic sprinkler system is installed throughout the story, the required fire-resistance rating for any corridor located on the story shall be permitted to be reduced in accordance with the *International Building Code*. In order to be considered for a corridor rating reduction, such system shall provide coverage for the stairway landings serving the ~~floor~~ *story* and the intermediate landings immediately below.

803.2.1 High-rise buildings. In high-rise buildings, *work areas* that have exits or corridors shared by more than one tenant or that have exits or corridors serving an occupant load greater than 30 shall be provided with automatic sprinkler protection in the entire *work area* where the *work area* is located on a ~~floor~~ *story* that has a sufficient sprinkler water supply system from an existing standpipe or a sprinkler riser serving that ~~floor~~ *story*.

803.2.1.1 Supplemental automatic sprinkler system requirements. Where the *work area* on ~~any floor~~ a *story* exceeds 50 percent of ~~that~~ the floor area of that *story*, Section 803.2.1 shall apply to the entire ~~floor~~ *story* on which the *work area* is located.

Exception: Occupied tenant spaces that are entirely outside the *work area*.

803.2.2 Groups A, B, E, F-1, H, I-1, I-3, I-4, M, R-1, R-2, R-4, S-1 and S-2. In buildings with occupancies in Groups A, B, E, F-1, H, I-1, I-3, I-4, M, R-1, R-2, R-4, S-1 and S-2, *work areas* that have exits or corridors shared by more than one tenant or that have exits or corridors serving an occupant load greater than 30 shall be provided with automatic sprinkler protection where both of the following conditions occur:

1. The *work area* is required to be provided with automatic sprinkler protection in accordance with the *International Building Code* as applicable to new construction.
2. The *work area* exceeds 50 percent of the floor area of the *story*.

Exception: If the building does not have an existing water supply present at the ~~floor~~ *story* of the proposed *work area* with sufficient pressure and flow for the design of a fire sprinkler system and without installation of a new fire pump, the *work areas* shall be protected by an automatic smoke detection system throughout all occupiable spaces other than sleeping units or individual dwelling units that activates the occupant notification system in accordance with Sections 907.4, 907.5 and 907.6 of the *International Building Code*.

803.2.5 Other required automatic sprinkler systems. In buildings and areas listed in Table 903.2.11.6 of the *International Building Code*, *work areas* that have exits or corridors shared by more than one tenant or that have exits or corridors serving an occupant load greater than 30 shall be provided with an automatic sprinkler system under the following conditions:

1. The *work area* is required to be provided with an automatic sprinkler system in accordance with the International Building Code applicable to new construction; and
2. The building has an existing water supply present at the ~~floor~~ *story* of the proposed *work area* with sufficient pressure and flow for the design of an automatic sprinkler system and without installation of a new fire pump.

803.3 Standpipes. Where the *work area* includes exits or corridors shared by more than one tenant and is located more than 50 feet (15 240 mm) above or below the lowest level of fire department access, a standpipe system shall be provided. Standpipes shall have an *approved* fire department connection with hose connections at each ~~floor level~~ *story* above or below the lowest level of fire department access. Standpipe systems shall be installed in accordance with the *International Building Code*.

Exceptions:

1. A pump shall not be required provided that the standpipes are capable of accepting delivery by fire department apparatus of not less than 250 gallons per minute (gpm) at 65 pounds per square inch (psi) (946 L/m at 448 KPa) to the topmost ~~floor~~ *story* in buildings equipped throughout with an automatic sprinkler system or not less than 500 gpm at 65 psi (1892 L/m at 448 KPa) to the topmost ~~floor~~ *story* in all other buildings. Where the standpipe terminates below the topmost ~~floor~~ *story*, the standpipe shall be designed to meet (gpm/psi) (L/m/KPa) requirements of this exception for possible future extension of the standpipe.
2. The interconnection of multiple standpipe risers shall not be required.

803.4.2 Supplemental fire alarm system requirements. Where the *work area* on ~~any floor~~ a *story* exceeds 50 percent of ~~that~~ the floor area of the *story*, Section 803.4.1 shall apply throughout the ~~floor~~ *story*.

Exception: Alarm-initiating and notification appliances shall not be required to be installed in tenant spaces outside of the *work area*.

804.1 Scope. The requirements of this section shall be limited to *work areas* that include exits or corridors shared by more than one tenant within the *work area* in which Level 2 *alterations* are being performed, and where specified they shall apply throughout the ~~floor~~ *story* on which the *work areas* are located or otherwise beyond the *work area*.

804.5.1.1 Single-exit buildings. A single exit or access to a single exit shall be permitted from spaces, any story or any occupiable roof where one of the following conditions exists:

1. The occupant load, number of dwelling units and exit access travel distance do not exceed the values in Table 804.5.1.1(1) or 804.5.1.1(2).
2. In Group R-1 or R-2, buildings without an *approved* automatic sprinkler system, individual single-story or multiple-story dwelling or sleeping units shall be permitted to have a single exit or access to a single exit from the dwelling or sleeping unit provided one of the following criteria are met:
   2.1. The occupant load is not greater than 10 and the exit access travel distance within the unit does not exceed 75 feet (22 860 mm).
   2.2. The building ~~is not~~ has no more than three stories ~~in height~~ above grade plane; all third-story space is part of a dwelling unit with an exit access doorway on the second story above grade plane; and the portion of the ~~exit access~~ travel distance from the door to any habitable room within any such unit to the unit entrance doors does not exceed 50 feet (15 240 mm).
3. In buildings of Group R-2 occupancy of any number of stories with not more than four dwelling units per ~~floor~~ *story* served by an interior exit stairway; with a smokeproof enclosure in accordance with Sections 909.20 and 1023.12 of the *International Building Code* or an exterior stairway as an exit; and where the portion of the exit access travel distance from the dwelling unit entrance door to the exit is not greater than 20 feet (6096 mm).

TABLE 804.5.1.1(1) STORIES WITH ONE EXIT OR ACCESS TO ONE EXIT FOR R-2 OCCUPANCIES

STORY	OCCUPANCY	MAXIMUM NUMBER OF DWELLING UNITS	MAXIMUM EXIT ACCESS TRAVEL DISTANCE
Basement, first, second or third story above grade plane and occupiable roofs over the first or second ~~floor~~ story above grade plane	R-2[a,b,c]	4 dwelling units	125 feet
Fourth story above grade plane and higher	NP	NA	NA

For SI: 1 foot = 304.8 mm.

NP = Not Permitted.

NA = Not Applicable.

a. Buildings classified as Group R-2, equipped without an approved automatic sprinkler system in accordance with Section 903.3.1.1 and 903.3.1.2 of the *International Fire Code* and provided with *emergency escape and rescue openings* in accordance with Section 1031 of the *International Building Code*.

b. This table is used for Group R-2 occupancies consisting of dwelling units. For Group R-2 occupancies consisting of sleeping units, use Table 1006.3.4(2) of the *International Building Code*.

c. This table is for occupiable roofs accessed through and serving individual dwelling units in Group R-2 occupancies. For Group R-2 occupancies with occupiable roofs that are not accessed through and serving individual units, use Table 804.5.1.1(2).

804.6.2.1 Supplemental requirements for door swing. Where the *work area* on a *story* exceeds 50 percent of the floor area of the *story*, door swing shall comply with Section 804.6.2 throughout the ~~floor~~ *story*.

Exception: Means of egress within or serving only a tenant space that is entirely outside the *work area*.

804.6.3 Door closing. In any *work area*, all doors opening onto an exit passageway ~~at grade~~ or an exit stairway shall be self-closing or automatic-closing by *listed* closing devices.

Exceptions:

1. Where exit enclosure is not required by the *International Building Code*.
2. Means of egress within or serving only a tenant space that is entirely outside the *work area*.

804.6.3.1 Supplemental requirements for door closing. Where the *work area* on a *story* exceeds 50 percent of the floor area of the *story* , doors shall comply with Section 804.6.3 throughout the exit stairway from ~~the *work area*~~ that *story* to, and including, the level of exit discharge.

804.6.4.1 Supplemental requirements for panic hardware. Where the *work area* on a *story* exceeds 50 percent of the floor area of the *story*, panic hardware shall comply with Section 804.6.4 throughout the ~~floor~~ *story*.

Exception: Means of egress within a tenant space that is entirely outside the *work area*.

804.7.3.1 Supplemental requirements for other corridor opening. Where the *work area* on a *story* exceeds 50 percent of the floor area of the story, Section 804.7.3 shall be applicable to all corridor windows, ~~grills~~ grilles, sashes and other openings on the ~~floor~~ story.

Exception: Means of egress within or serving only a tenant space that is entirely outside the *work area*.

804.7.4 Supplemental requirements for corridor openings. Where the *work area* on ~~any floor~~ a *story* exceeds 50 percent of the floor area of the *story*, the requirements of Sections 804.7.1 through 804.7.3 shall apply throughout the ~~floor~~ *story*.

804.8 Dead-end corridors. Dead-end corridors in any *work area* shall not exceed 35 feet (10 670 mm). In Group I-2 occupancies, dead-end corridors shall not exceed 30 feet (9144 mm).

Exceptions:

1. Where dead-end corridors of greater length are permitted by the *International Building Code*.
2. In other than Group A, I-2 and H occupancies, the maximum length of an existing dead-end corridor shall be 50 feet (15 240 mm) in buildings equipped throughout with an automatic fire alarm system installed in accordance with the *International Building Code*.
3. In other than Group A, I-2 and H occupancies, the maximum length of an existing dead-end corridor shall be 70 feet (21 356 mm) in buildings equipped throughout with an automatic sprinkler system installed in accordance with the *International Building Code*.
4. In other than Group A, I-2 and H occupancies, the maximum length of an existing, newly constructed, or extended dead-end corridor shall not exceed 50 feet (15 240 mm) on ~~floors~~ *stories* equipped with an automatic sprinkler system installed in accordance with the *International Building Code*.

804.9.2 Supplemental requirements for means-of-egress lighting. Where the *work area* on ~~any floor~~ a *story* exceeds 50 percent of that floor area of the *story*, means of egress throughout the ~~floor~~ *story* shall comply with Section 804.9.1.

Exception: Means of egress within or serving only a tenant space that is entirely outside the *work area*.

804.10.2 Supplemental requirements for exit signs. Where the *work area* on ~~any floor~~ a *story* exceeds 50 percent of ~~that~~ the floor area of the *story*, means of egress throughout the ~~floor~~ *story* shall comply with Section 804.10.1.

Exception: Means of egress within a tenant space that is entirely outside the *work area*.

804.13 Handrails. The requirements of Sections 804.13.1 and 804.13.2 shall apply to handrails from the highest *story* in the *work area* ~~floor~~ to, and including, the level of exit discharge.

804.14 Guards. The requirements of 804.14.1 and 804.14.2 shall apply to guards from the highest *story* in the *work area* ~~floor~~ to, and including, the level of exit discharge but shall be confined to the egress path of any *work area*.

902.1 High-rise buildings. Any building having an occupied ~~floors~~ floor or ~~an~~ *occupiable roof* more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access shall comply with the requirements of Sections 902.1.1 and 902.1.2.

902.1.1 Recirculating air or exhaust systems. Where a ~~floor~~ *story* is served by a recirculating air or exhaust system with a capacity greater than 15,000 cubic feet per minute (701 m^3/s), that system shall be equipped with *approved* smoke and heat detection devices installed in accordance with the *International Mechanical Code*.

902.1.2 Elevators. Where there is an elevator or elevators for public use, not fewer than one elevator serving the *work area* shall comply with this section. Existing elevators with a travel distance of 25 feet (7620 mm) or more above or below the ~~main floor or other level of a building and intended to serve the needs of emergency personnel for fire fighting or rescue purposes~~ lowest level of fire department vehicle access shall be provided with emergency operation in accordance with ASME A17.3. New elevators shall be provided with Phase I emergency recall operation and Phase II emergency in-car operation in accordance with ASME A17.1/CSA B44.1.

903.1 Existing shafts and vertical openings. Existing stairways that are part of the means of egress shall be enclosed in accordance with Section 802.2.1 from the highest *story* in the *work area* ~~floor~~ to, and including, the level of exit discharge and all ~~floors~~ *stories* below.

903.3 Interior finish. Interior finish in exits serving the *work area* shall comply with Section 802.4 between the highest ~~floor on which there is a~~ *story* in the *work area* to the ~~floor~~ level of exit discharge.

904.2.1 Manual fire alarm systems. Where required by the *International Building Code*, a manual fire alarm system shall be provided throughout the *work area*. Alarm notification appliances shall be provided on ~~such floors~~ all *stories* in the *work area* and shall be automatically activated as required by the *International Building Code*.

Exceptions:

1. Alarm-initiating and notification appliances shall not be required to be installed in tenant spaces outside of the *work area*.
2. Visual alarm notification appliances are not required, except where an existing alarm system is upgraded or replaced or where a new fire alarm system is installed.

905.2 Means-of-egress lighting. Means of egress from the highest *story* in the *work area* ~~floor~~ to the ~~floor~~ level of exit discharge shall be provided with artificial lighting within the exit enclosure in accordance with the requirements of the *International Building Code*.

905.3 Exit signs. Means of egress from the highest *story* in the *work area* ~~floor~~ to the ~~floor~~ level of exit discharge shall be provided with exit signs in accordance with the requirements of the *International Building Code*.

1009.1 Increased demand. Where the occupancy of an *existing building* or part of an *existing building* is changed such that the new occupancy is subject to increased or different plumbing fixture requirements or to increased water supply requirements in accordance with the *International Plumbing Code*, the new occupancy shall comply with the intent of the respective *International Plumbing Code* provisions.

Exception: Only where the occupant load of ~~the~~ a story is increased by more than 20 percent, plumbing fixtures for the story shall be provided in quantities specified in the *International Plumbing Code* based on the increased occupant load.

1011.7.3 Opening protectives. Openings in exterior walls shall be protected as required by the *International Building Code*. Where openings in the exterior walls are required to be protected because of their distance from the lot line, the sum of the area of such openings shall not exceed 50 percent of the total area of the wall in each story.

Exceptions:

1. Where the *International Building Code* permits openings in excess of 50 percent.
2. Protected openings shall not be required in exterior walls of buildings of Group R occupancy ~~that do not exceed~~ with no more than three stories above grade plane ~~in height~~ and that are located ~~not less than~~ at least 3 feet (914 mm) from the lot line.
3. Exterior opening protectives are not required where an automatic sprinkler system has been installed throughout.

4. Exterior opening protectives are not required where the *change of occupancy* group is to an equal or lower hazard classification in accordance with Table 1011.7.

1011.8.2 Stairways. Where a change of occupancy classification is made to a higher-hazard category as shown in Table 1011.5, interior stairways shall be enclosed as required by the *International Building Code*.

Exceptions:

1. In other than Group I occupancies, an enclosure shall not be required for openings serving only one adjacent ~~floor~~ *story* and that are not connected with corridors or stairways serving other ~~floors~~ *stories*.
2. Unenclosed existing stairways need not be enclosed in a continuous vertical shaft if each story is separated from other stories by 1-hour fire-resistance-rated construction or *approved* wired glass set in steel frames and all exit corridors are sprinklered in accordance with the *International Building Code* . The openings between the corridor and the tenant space shall have not fewer than one sprinkler above the openings on the tenant side.
3. Existing penetrations of stairway enclosures shall be accepted if they are protected in accordance with the *International Building Code*.

1201.3 Special occupancy exceptions—museums. Where a building in Group R-3 is used for Group A, B or M purposes such as museum tours, exhibits and other public assembly activities, or for museums less than 3,000 square feet (279 m^2) per ~~floor~~ *story* and a maximum of three ~~stories~~ *stories above grade plane*, the occupancy shall be classified as Group B where life safety conditions are *approved* by the *code official* in accordance with Section 1201.2. Adequate means of egress in such buildings, including, but not limited to, a means of maintaining doors in an unlocked position to permit egress, a limit on building occupancy to an occupant load permitted by the means of egress capacity, a limit on occupancy of certain areas or ~~floors~~ *stories*, or supervision by a person knowledgeable in the emergency exiting procedures, shall be provided.

1305.2.2.2 Area formula. The following formulas shall be used in computing the area value. Equation 13-4 shall be used for a single occupancy building~~s~~ and Equation 13-5 shall be used for a multiple occupancy building~~s~~. Determine the area value for each occupancy ~~floor~~ area on a ~~floor-by-floor~~ *story*-by-*story* basis. For multiple occupancy buildings the minimum area value of the set of values obtained for the particular occupancy shall be used as the area value for that occupancy.For single occupancy buildings:

$$\text{Area value}_i = (\text{Allowable area} - \text{Actual area})/1200 \text{ square feet} \qquad \textbf{Equation 13-4}$$

For multiple occupancy buildings:

$$\text{Area value}_i = \frac{\text{Allowable area}_i}{1200 \text{square feet}}\left[1 - \left(\frac{\text{Actual area}_i}{\text{Allowable area}_i} + \ldots + \frac{\text{Actual area}_n}{\text{Allowable area}_n}\right)\right] \qquad \textbf{Equation 13-5}$$

where:

i = Value for an individual separated occupancy on a ~~floor~~ *story*. n = Number of separated occupancies on a ~~floor~~ *story*.

1305.2.3.2 Wall construction. A wall used to create separate compartments shall be a fire barrier conforming to Section 707 of the *International Building Code* with a fire-resistance rating of not less than 2 hours. Where the building is not divided into more than one compartment, the compartment size shall be taken as the total floor area on all ~~floors~~ *stories*. Where there is more than one compartment within a story, each compartmented area on such story shall be provided with a horizontal exit conforming to Section 1026 of the *International Building Code*. The fire door serving as the horizontal exit between compartments shall be so installed, fitted and gasketed that such fire door will provide a substantial barrier to the passage of smoke.

1305.2.5 Corridor walls. Evaluate the fire-resistance rating and degree of completeness of walls which create corridors serving the ~~floor~~ *story* and that are constructed in accordance with Section 1020 of the *International Building Code*. This evaluation shall not include the wall elements considered under Sections 1305.2.3 and 1305.2.4. Under the categories and groups in Table 1305.2.5, determine the appropriate value and enter that value into Table 1306.1 under Safety Parameter 1305.2.5, Corridor Walls, for fire safety, means of egress and general safety.

TABLE 1305.2.5 CORRIDOR WALL VALUES

OCCUPANCY	CATEGORIES			
	a	b	c[a]	d[a]
A-1	-10	-4	0	2
A-2	-30	-12	0	2
A-3, F, M, R, S-1	-7	-3	0	2
A-4, B, E, S-2	-5	-2	0	5
I-2	-10	0	1	2

a. Corridors not providing at least one-half the exit access travel distance for all occupants on a ~~floor~~ story shall use Category b.

1305.2.6 Vertical openings. Evaluate the fire-resistance rating of interior exit stairways or ramps, hoistways, escalator openings and other shaft enclosures within the building, and openings between two or more ~~floors~~ *stories*. Table 1305.2.6(1) contains the appropriate protection values. Multiply that value by the construction-type factor found in Table 1305.2.6(2). Enter the vertical opening value and its sign (positive or negative) in Table 1306.1 under Safety Parameter 1305.2.6, Vertical Openings, for fire safety, means of egress and general safety. If the structure is a one-story building or if all the unenclosed vertical openings within the building conform to the requirements of Section 712 of the *International Building Code*, enter a value of 2. The maximum positive value for this requirement (VO) shall be 2.

TABLE 1305.2.6(1) VERTICAL OPENING PROTECTION VALUE

PROTECTION	VALUE
None (unprotected opening)	-2 times number of ~~floors~~ stories connected
Less than 1 hour	-1 times number of ~~floors~~ storiesconnected
1 to less than 2 hours	1
2 hours or more	2

1305.2.8.1 Categories. The categories for automatic fire detection are:

1. Category a—None.
2. Category b—Existing smoke detectors in HVAC systems and maintained in accordance with the *International Fire Code*.
3. Category c—Smoke detectors in HVAC systems. The detectors are installed in accordance with the requirements for new buildings in the *International Mechanical Code*.
4. Category d—Smoke detectors throughout ~~all floor areas~~ the area of work other than individual sleeping units, tenant spaces and dwelling units.
5. Category e—Smoke detectors installed throughout the ~~floor area~~ area of work.
6. Category f—Smoke detectors in corridors only.

1305.2.10.1 Categories. The categories for smoke control are:

1. Category a—None.
2. Category b—The building is equipped throughout with an automatic sprinkler system. Openings are provided in exterior walls at the rate of 20 square feet (1.86 m^2) per 50 linear feet (15 240 mm) of exterior wall in each story and distributed around the building perimeter at intervals not exceeding 50 feet (15 240 mm). Such openings shall be readily openable from the inside without a key or separate tool and shall be provided with ready access thereto. In lieu of operable openings, clearly and permanently marked tempered glass panels shall be used.
3. Category c—One enclosed exit stairway, with ready access thereto, from each occupied ~~floor~~ *story* of the building. The stairway has operable exterior windows, and the building has openings in accordance with Category b.
4. Category d—One smokeproof enclosure and the building has openings in accordance with Category b.

5. Category e—The building is equipped throughout with an automatic sprinkler system. Each ~~floor~~ area is provided with a mechanical air-handling system designed to accomplish smoke containment. Return and exhaust air shall be moved directly to the outside without recirculation to other ~~floor~~ areas of the building under fire conditions. The system shall exhaust not less than six air changes per hour from ~~the floor~~ each area. Supply air by mechanical means ~~to the floor area~~ is not required. Containment of smoke shall be considered as confining smoke to the ~~floor~~ area involved without migration to other ~~floor~~ areas. Any other tested and *approved* design that will adequately accomplish smoke containment is permitted.
6. Category f—Each stairway shall be one of the following: a smokeproof enclosure in accordance with Section 1023.12 of the *International Building Code*; pressurized in accordance with Section 909.20.4 of the *International Building Code*; or shall have operable exterior windows.

1305.2.14 Elevator control. Evaluate the passenger elevator equipment and controls that are available to the fire department to reach all occupied ~~floors~~ *stories*. Emergency recall and in-car operation of elevators shall be provided in accordance with the *International Fire Code*. Under the categories and occupancies in Table 1305.2.14, determine the appropriate value and enter that value into Table 1306.1 under Safety Parameter 1305.2.14, Elevator Control, for fire safety, means of egress and general safety. The values shall be zero for a single-story building.

1305.2.14.1 Categories. The categories for elevator controls are:

1. Category a—No elevator.
2. Category b—Any elevator without Phase I emergency recall operation and Phase II emergency in-car operation.
3. Category c—All elevators with Phase I emergency recall operation and Phase II emergency in-car operation as required by the *International Fire Code*.
4. Category d—All meet Category c; or Category b where permitted to be without Phase I emergency recall operation and Phase II emergency in-car operation; and at least one elevator that complies with new construction requirements serves all occupied ~~floors~~ *stories*.

1305.2.19 Incidental uses. Evaluate the protection of incidental uses in accordance with Section 509.4.2 of the *International Building Code*. Do not include those where this code requires automatic sprinkler systems throughout the building including covered and open mall buildings, high-rise buildings, public garages and unlimited area buildings. Assign the lowest score from Table 1305.2.19 for the building or ~~floor~~ area being evaluated and enter that value into Table 1306.1 under Safety Parameter 1305.2.19, Incidental Use, for fire safety, means of egress and general safety. If there are no specific occupancy areas in the building or ~~floor~~ area being evaluated, the value shall be zero.

TABLE 1306.1 SUMMARY SHEET—BUILDING CODE

Existing occupancy: _____		Proposed occupancy: _____	
Year building was constructed: _____		Number of stories: _____ Height in feet: _____	
Type of construction: _____		Area per ~~floor~~ story: _____	
Percentage of open perimeter increase: _____ %			
Completely suppressed:	Yes_____ No____	Corridor wall rating:_____	
		Type:_____	
Compartmentation:	Yes _____ No _____	Required door closers:	Yes_____ No_____
Fire-resistance rating of vertical opening enclosures: _____			
Type of HVAC system:_____, serving number of ~~floors~~ stories: _____			
Automatic fire detection:	Yes_____ No_____	Type and location: _____	
Fire alarm system:	Yes_____ No_____	Type: _____	
Smoke control:	Yes_____ No_____	Type: _____	
Adequate exit routes:	Yes _____ No_____	Dead ends: _____	Yes _____ No _____
Maximum exit access travel distance: _____		Elevator controls:	Yes _____ No _____
Means of egress emergency lighting:	Yes _____ No _____	Mixed occupancies:	Yes _____ No _____
Standpipes:	Yes_____ No_____	Care recipients ability for self-preservation: _____	
Incidental use:	Yes_____ No_____	Care recipients concentration: _____	
Smoke compartmentation less than 22,500 ft^2 (2092 m^2):	Yes_____ No_____	Attendant-to-care recipients ratio: _____	

SAFETY PARAMETERS	FIRE SAFETY (FS)	MEANS OF EGRESS (ME)	GENERAL SAFETY (GS)
1305.2.1 Building height			
1305.2.2 Building area			

1305.2.3 Compartmentation			
1305.2.4 Tenant and dwelling unit separations			
1305.2.5 Corridor walls			
1305.2.6 Vertical openings			
1305.2.7 HVAC systems			
1305.2.8 Automatic fire detection			
1305.2.9 Fire alarm system			
1305.2.10 Smoke control	* * * *		
1305.2.11 Means of egress	* * * *		
1305.2.12 Dead ends	* * * *		
1305.2.13 Maximum exit access travel distance	* * * *		
1305.2.14 Elevator control			
1305.2.15 Means of egress emergency lighting	* * * *		
1305.2.16 Mixed occupancies		* * * *	
1305.2.17 Automatic sprinklers		÷ 2 =	
1305.2.18 Standpipes			
1305.2.19 Incidental use			
1305.2.20 Smoke compartmentation			
1305.2.21.1 Care recipients ability for self-preservation[a]	* * * *		
1305.2.21.2 Care recipients concentration[a]	* * * *		
1305.2.21.3 Attendant-to-care recipients ratio[a]	* * * *		
Building score–total value			

* * * *No applicable value to be inserted.

a. Only applicable to Group I-2 occupancies.

Reason: In the IBC, "story" and "story above grade plane" are key defined terms. Currently, the IEBC uses an assortment of undefined terms (story, floor, level, etc.) to refer to levels in a building. This proposal adds IBC-based definitions and makes conforming changes to language throughout the IEBC, excluding Section 306 and Chapter 15. A companion proposal makes corresponding changes in Section 306 ("Accessibility for Existing Buildings") to allow for adequate input on accessibility-related implications of the proposed changes. Chapter 15 ("Construction Safeguards") is excluded as many provisions are scoped to Group A committees and may require further coordination with similar language in Chapter 34 of the IBC.

This proposal is submitted with the ICC Adaptive Reuse Working Group (ARWG).

ARWG was convened in 2024 by ICC Government Relations to explore opportunities to facilitate the reuse of existing nonresidential buildings for multi-family residential uses through better training on use of the International Codes for adaptive reuse work and potential amendments to the International Codes. ARWG held numerous virtual meetings in 2024 and met in person at the 2024 annual business meeting in Long Beach. ARWG consists of code officials, design professionals, and other interested parties.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This change is editorial and intended to use consistently-defined terms to refer to levels in a building.

Staff Analysis: This proposal is simply duplicating a definition from the IBC, IFC, and IMC. The definition cannot be revised in this proposal as it is scoped to another committee.

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IEBC: 802.2.2, 802.2.3, 802.4.1, 803.2.2, 803.2.3, 803.4.2, 804.6.2.1, 804.6.3.1, 804.6.4.1, 804.7.3.1, 804.7.4, 804.9.2, 804.10.2

Proponents: Grant Ullrich, City of Chicago, representing Self (grant.ullrich@cityofchicago.org)

2024 International Existing Building Code

Revise as follows:

802.2.2 Supplemental shaft and floor opening enclosure requirements. Where the ~~*work area* on any floor exceeds 50 percent of that floor area~~ aggregate floor area of *reconfigured spaces* on a *story* exceeds 50 percent of the floor area of the *story*, the enclosure requirements of Section 802.2 shall apply to vertical openings other than stairways throughout the ~~floor~~ *story*.

Exception: Vertical openings ~~located in~~ within a tenant space~~s~~ that ~~are~~ is entirely outside the *work area*.

802.2.3 Supplemental stairway enclosure requirements. Where the ~~*work area* on any floor exceeds 50 percent of that floor area~~ aggregate floor area of *reconfigured spaces* on a *story* exceeds 50 percent of the floor area of the *story*, stairways that are part of the means of egress serving the *work area* shall, at a minimum, be enclosed with smoketight construction on the highest *story* within the *work area* ~~floor~~ and all ~~floors~~ *stories* below.

Exception: Where stairway enclosure is not required by the *International Building Code* ~~or the *International Fire Code*~~.

802.4.1 Supplemental interior finish requirements. Where the ~~*work area* on any floor exceeds 50 percent of the floor area~~ aggregate floor area of *reconfigured spaces* on a *story* exceeds 50 percent of the floor area of the *story*, Section 802.4 shall apply to ~~the~~ interior ~~finish~~ finishes and trim in ~~exits and~~ corridors and other exit access components serving the *work area* throughout the ~~floor~~ *story*.

Exception: Interior ~~finish~~ finishes and trim within a tenant space~~s~~ that ~~are~~ is entirely outside the *work area*.

803.2.2 Groups A, B, E, F-1, H, I-1, I-3, I-4, M, R-1, R-2, R-4, S-1 and S-2. In buildings with occupancies in Groups A, B, E, F-1, H, I-1, I-3, I-4, M, R-1, R-2, R-4, S-1 and S-2, *work areas* that have exits or corridors shared by more than one tenant or that have exits or corridors serving an occupant load greater than 30 shall be provided with automatic sprinkler protection on *stories* where both of the following conditions occur:

1. The *work area* is required to be provided with automatic sprinkler protection in accordance with the *International Building Code* as applicable to new construction.
2. The ~~*work area* exceeds 50 percent of the floor area~~ aggregate floor area of *reconfigured spaces* on a *story* exceeds 50 percent of the floor area of the *story*.

Exception: If the building does not have an existing water supply present at the ~~floor~~ story of the proposed *work area* with sufficient pressure and flow for the design of a fire sprinkler system and without installation of a new fire pump, the *work areas* shall be protected by an automatic smoke detection system throughout all occupiable spaces other than sleeping units or individual dwelling units that activates the occupant notification system in accordance with Sections 907.4, 907.5 and 907.6 of the *International Building Code*.

803.2.3 Group I-2. In Group I-2 occupancies, an automatic sprinkler system installed in accordance with Section 903.3.1.1 of the *International ~~Fire~~ Building Code* shall be provided in the following:

1. In Group I-2, Condition 1, throughout the *work area*.
2. In Group I-2, Condition 2, throughout ~~the *work area*~~ *reconfigured spaces* where the ~~*work area*~~ aggregate floor area of *reconfigured spaces* within a smoke compartment is 50 percent or less of the floor area of the smoke compartment.
3. In Group I-2, Condition 2, throughout ~~the~~ a smoke compartment in which the ~~work occurs where the *work area*~~ aggregate floor area of *reconfigured spaces* exceeds 50 percent of the floor area of the smoke compartment.

803.4.2 Supplemental fire alarm system requirements. Where the ~~*work area* on any floor exceeds 50 percent of that floor area~~

aggregate floor area of *reconfigured spaces* on a *story* exceeds 50 percent of the floor area of the *story*, Section 803.4.1 shall apply throughout the ~~floor~~ *story*.

Exception: Alarm-initiating and notification appliances shall not be required to be installed ~~in~~ within tenant spaces that are entirely outside of the *work area*.

804.6.2.1 Supplemental requirements for door swing. Where the ~~*work area* exceeds 50 percent of the floor area~~ aggregate floor area of *reconfigured spaces* on a *story* exceeds 50 percent of the floor area of the *story*, door swing shall comply with Section 804.6.2 throughout the ~~floor~~ *story*.

Exception: ~~Means of egress~~ Doors within or serving only a tenant space that is entirely outside the *work area*.

804.6.3.1 Supplemental requirements for door closing. Where the ~~*work area* exceeds 50 percent of the floor area~~ aggregate floor area of *reconfigured spaces* on a *story* exceeds 50 percent of the floor area of the *story*, doors in exit stairways serving the *work area* shall comply with Section 804.6.3 ~~throughout the exit stairway~~ from the highest *story* in the *work area* to, and including, the level of exit discharge.

804.6.4.1 Supplemental requirements for panic hardware. Where the ~~*work area* exceeds 50 percent of the floor area~~ aggregate floor area of *reconfigured spaces* on a *story* exceeds 50 percent of the floor area of the *story*, panic hardware shall comply with Section 804.6.4 throughout the ~~floor~~ *story*.

Exception: ~~Means of egress~~ Hardware on doors within a tenant space that is entirely outside the *work area*.

Delete without substitution:

~~**804.7.3.1 Supplemental requirements for other corridor opening.** Where the *work area* exceeds 50 percent of the floor area, Section 804.7.3 shall be applicable to all corridor windows, grills, sashes and other openings on the floor.~~

~~**Exception:** Means of egress within or serving only a tenant space that is entirely outside the *work area*.~~

Revise as follows:

804.7.4 Supplemental requirements for corridor openings. Where the ~~*work area* on any floor exceeds 50 percent of the floor area~~ aggregate floor area of *reconfigured spaces* on a *story* exceeds 50 percent of the floor area of the *story*, the requirements of Sections 804.7.1 through 804.7.3 shall apply throughout the ~~floor~~ *story*.

Exception: Openings in corridors within or serving only a tenant space that is entirely outside the *work area*.

804.9.2 Supplemental requirements for means-of-egress lighting. Where the ~~*work area* on any floor exceeds 50 percent of that floor area~~ aggregate floor area of *reconfigured spaces* on a *story* exceeds 50 percent of the floor area of the *story*, means of egress throughout the ~~floor~~ *story* shall comply with Section 804.9.1.

Exception: Means of egress within or serving only a tenant space that is entirely outside the *work area*.

804.10.2 Supplemental requirements for exit signs. Where the ~~*work area* on any floor exceeds 50 percent of that floor area~~ aggregate floor area of *reconfigured spaces* on a *story* exceeds 50 percent of the floor area of the *story*, means of egress throughout the ~~floor~~ *story* shall comply with Section 804.10.1.

Exception: Means of egress within or serving only a tenant space that is entirely outside the *work area*.

Reason: This proposal cleans up several provisions in Chapter 8 that are triggered where the floor area being reconfigured on a story exceeds 50 percent of the floor area of that story. Unfortunately, the existing wording of these provisions is somewhat unclear and conflates an attribute of the work area (floor area) with the defined term.

The proposal also deletes Section 804.7.3.1 as duplicative of Section 804.7.4; the current exception to 804.7.3.1 is relocated to the remaining section.

This proposal is intended to build upon the definition of "reconfigured space" that is included in Proposal 10993, however it can also be

adopted independently. If this proposal is adopted without the companion proposal, the term "reconfigured space" should not be italicized as shown.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal clarifies the application of existing provisions.

EB85-25

EB86-25

IEBC: 803.1.1, 803.1.2 (New), 1011.2.1 (New), 1011.2.2 (New)

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org); Jeff O'Neill, Chair, representing Committee on Healthcare (ahc@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

803.1.1 Corridor ratings. For other than Group I-1, Condition 2, Group I-2 and I-3, where ~~Where~~ an *approved* automatic sprinkler system is installed throughout the story, the required fire-resistance rating for ~~any corridor~~ corridors located on the story shall be permitted to be reduced in accordance with the *International Building Code*. ~~In order to~~ To be considered for a corridor rating reduction, such system shall provide coverage for the stairway landings serving the ~~floor~~ story and the intermediate landings immediately below.

Add new text as follows:

803.1.2 Corridor ratings in Group I-1 Condition 2, I-2 and I-3. Where an approved automatic sprinkler system is installed throughout the story, the required fire-resistance rating for corridors located on the story shall be permitted to be reduced in accordance with the International Building Code for a building equipped throughout with an automatic sprinkler system. To be considered for a corridor rating reduction, such system shall provide coverage for the stairway landings serving the story and the intermediate landings immediately below.

1011.2.1 Corridor ratings. For other than Group I-1, Condition 2, Group I-2 and I-3, where an approved automatic sprinkler system is installed throughout the story, the required fire-resistance rating for corridors located on the story shall be permitted to be reduced in accordance with the International Building Code for a building equipped throughout with an automatic sprinkler system. To be considered for a corridor rating reduction, such system shall provide coverage for the stairway landings serving the story and the intermediate landings immediately below.

1011.2.2 Corridor ratings in Group I-1 Condition 2, I-2 and I-3. Where an approved automatic sprinkler system is installed throughout the story, the required fire-resistance rating for corridors located on the story shall be permitted to be reduced in accordance with the International Building Code for a building equipped throughout with an automatic sprinkler system. To be considered for a corridor rating reduction, such system shall provide coverage for the stairway landings serving the story and the intermediate landings immediately below.

Reason: The intent is to coordinate the COO with the alteration requirements for corridors.

The reduction in corridor ratings is in Section 803.1.1. This option should be allowed in COO to encourage sprinklers.
Hospitals are in the process of becoming fully sprinklered. Once a smoke compartment is sprinklered, then the corridors should be able to permitted to be reduced.

IFC **1105.5 Corridor construction.** In Group I-2, in areas housing patient sleeping or care rooms, *corridor* walls and the opening protectives therein shall provide a barrier designed to resist the passage of smoke in accordance with Sections 1105.5.1 through 1105.5.7.

1105.5.2 Fire-resistance rating. Unless required elsewhere in this code, *corridor* walls are not required to have a *fire-resistance rating*. *Corridor* walls that were installed as *fire-resistance-rated* assemblies in accordance with the applicable codes under which the building was constructed, remodeled or altered shall be maintained unless modified in accordance with the *International Existing Building Code*.

This proposal is one of the series of changes to IEBC Chapter 10 from the BCAC. See the proposal for Chapter 10 reorganization for a clean draft.

This proposal is submitted by the ICC Committee for Healthcare (CHC) and ICC Building Code Action Committee (BCAC)

The Committee on Healthcare (CHC) was established by the ICC Board of Directors in 2011 to pursue opportunities to study and develop effective and efficient provisions for Hospital, Nursing Homes, Assisted Living and Ambulatory Care Facilities. This committee was formed in cooperation with the American Society for Healthcare Engineering (ASHE). In July of 2017, the ICC Board made CHC a

standing committee. In 2023 and 2024 the CHC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the CHC website at CHC webpage.

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is coordinating COO corridor requirements with alterations and IFC.

EB86-25

EB87-25

IEBC: 804.5.1, 804.5.1.1, TABLE 804.5.1.1(1), TABLE 804.5.1.1(2)

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

804.5.1 Minimum number. Every story utilized for human occupancy on which there is a *work area* that includes exits or corridors shared by more than one tenant within the *work area* shall be provided with the minimum number of exits based on the occupancy and the occupant load in accordance with the *International Building Code*. In addition, the exits shall comply with Sections 804.5.1.1 and 804.5.1.2.

804.5.1.1 Single-exit buildings. A single exit or access to a single exit shall be permitted from spaces, any story or any occupiable roof where one of the following conditions exists:

1. The occupant load, number of dwelling units and exit access travel distance do not exceed the values in Table 804.5.1.1(1) or 804.5.1.1(2).
2. In Group R-1 or R-2, buildings without an *approved* automatic sprinkler system, individual single-story or multiple-story dwelling or sleeping units shall be permitted to have a single exit or access to a single exit from the dwelling or sleeping unit provided one of the following criteria are met:
   2.1. The occupant load is not greater than 10 and the exit access travel distance within the unit does not exceed 75 feet (22 860 mm).
   2.2. The building is not more than three stories in height; all third-story space is part of dwelling with an exit access doorway on the second story; and the portion of the exit access travel distance from the door to any habitable room within any such unit to the unit entrance doors does not exceed 50 feet (15 240 mm).
3. In buildings of Group R-2 occupancy of any number of stories with not more than four dwelling units per floor served by an interior exit stairway; with a smokeproof enclosure in accordance with Sections 909.20 and 1023.12 of the *International Building Code* or an exterior stairway as an exit; and where the portion of the exit access travel distance from the dwelling unit entrance door to the exit is not greater than 20 feet (6096 mm).

Revise as follows:

TABLE 804.5.1.1(1) STORIES AND OCCUPIABLE ROOFS WITH ONE EXIT OR ACCESS TO ONE EXIT FOR R-2 OCCUPANCIES

STORY AND OCCUPIABLE ROOF	OCCUPANCY	MAXIMUM NUMBER OF DWELLING UNITS	MAXIMUM EXIT ACCESS TRAVEL DISTANCE
Basement, first, second or third story above grade plane and occupiable roofs over the first or second floor above grade plane	R-2[d]	4 dwelling units	50 feet
Basement, first, second or third story above grade plane and occupiable roofs over the first or second floor above grade plane	R-2[a,b,c]	4 dwelling units	125 feet
Fourth story above grade plane and higher	NP	NA	NA

For SI: 1 foot = 304.8 mm.

NP = Not Permitted.

NA = Not Applicable.

a. Buildings classified as Group R-2, equipped ~~without~~ throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, ~~and~~ 903.3.1.2 and 903.3.1.3 of the *International Fire Code* and provided with *emergency escape and rescue openings* in accordance with Section 1031 of the *International Building Code*.

b. This table is used for Group R-2 occupancies consisting of dwelling units. For Group R-2 occupancies consisting of sleeping units, use Table 1006.3.4(2) of the *International Building Code*.

c. This table is for occupiable roofs accessed through and serving individual dwelling units in Group R-2 occupancies. For Group R-2 occupancies with occupiable roofs that are not accessed through and serving individual units, use ~~Table 804.5.1.1(2)~~ Table 1006.3.4(2) of the International Building Code.

d. Buildings classified as Group R-2 without an automatic sprinkler system and provided with emergency escape and rescue opening in accordance with Section 1031 of the International Building Code.

TABLE 804.5.1.1(2) STORIES AND OCCUPIABLE ROOFS WITH ONE EXIT OR ACCESS TO ONE EXIT FOR OTHER OCCUPANCIES

STORY OR OCCUPIABLE ROOF	OCCUPANCY	MAXIMUM OCCUPANT LOAD PER STORY	MAXIMUM EXIT ACCESS TRAVEL DISTANCE (feet)
First story above or below grade plane or occupiable roofs over the first story above grade plane	B[b], F-2[b]	49	75
	S-2[a, b]	35	75
Second story above grade plane	B, F-2, S-2[a]	35	75
Third story above grade plane and higher	NP	NA	NA

For SI: 1 foot = 304.8 mm.

NP = Not Permitted.

NA = Not Applicable.

a. The length of exit access travel distance in a Group S-2 open parking garage shall be not more than 100 feet.

b. Group B, F and S occupancies in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the *International Fire Code* or on the roof of such buildings shall have a maximum exit access travel distance of 100 feet.

Reason: This proposal is focused solely on the maximum exit travel distance in R-2 occupancies and attempts to address an error that occurred during the previous code cycle with the approval of EB83-22. The purpose of EB83-22 attempted to clarify the requirements for occupiable roofs when they are within an R-2 with a single exit by modifying the language and values in Table 804.1.1(1). However, it inadvertently made a technical change that increased the maximum travel distance without providing additional protection.

To coordinate the requirements between the IEBC and the IBC, Footnote A and the maximum exit access travel distance for an R-2 with a maximum number of 4 dwelling units were modified. The travel distance was increased from 50 feet to 125 and the footnote was revised to state the increase was only permissible if the R-2 was equipped with an approved automatic sprinkler and emergency escape and rescue openings. However, there was an error in the original proposal, as the word “without” should have been deleted in footnote A.

If you compare the values and footnote A of the 2024 table 804.1.1.(1) to the revised 2027 Table 804.5.1.1(1), it appears that the overall maximum exit access travel distance has increase by 75 feet for an unsprinklered R-2 occupancy.

This proposed change is being submitted to correct the table, by removing the footnote altogether and making it clear within the table what the maximum allowed exit travel distances is for an R-2 with and without the automatic suppression and emergency escape and rescue opening.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).
BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is correcting an error in the single exit tables. This should restore the original intent, so there are no new requirements for construction.

EB87-25

EB88-25

IEBC: 804.14.2, 1011.5.1, 1011.5.2

Proponents: David Renn, PE, SE, City and County of Denver, representing Code Change Committee of ICC Colorado Chapter (david.renn@denvergov.org)

2024 International Existing Building Code

Revise as follows:

804.14.2 Design. Guards required in accordance with Section 804.14.1 shall be designed and installed in accordance with the *International Building Code*.

~~**Exception:** In Group I-1 and I-2 facilities, required guards enclosing the *occupiable roof* areas shall be permitted to be greater than 48 inches (1219 mm) above the surface of the *occupiable roof* where the occupants, because of clinical needs, require restraint or containment as part of a function of a psychiatric or cognitive treatment area.~~

1011.5.1 Means of egress for change to a higher-hazard category. Where a change of occupancy classification is made to a higher-hazard category (lower number) as shown in Table 1011.5, the means of egress shall comply with the requirements of Chapter 10 of the *International Building Code*.

Exceptions:

1. Stairways shall be enclosed in compliance with the applicable provisions of Section 903.1.
2. Existing stairways including handrails and guards complying with the requirements of Chapter 9 shall be permitted for continued use subject to approval of the *code official*.
3. Any stairway replacing an existing stairway within a space where the pitch or slope cannot be reduced because of existing construction shall not be required to comply with the maximum riser height and minimum tread depth requirements.
4. Existing corridor walls constructed on both sides of wood lath and plaster in good condition or $^{1}/_{2}$-inch-thick (12.7 mm) gypsum wallboard shall be permitted. Such walls shall either terminate at the underside of a ceiling of equivalent construction or extend to the underside of the floor or roof next above.
5. Existing corridor doorways, transoms and other corridor openings shall comply with the requirements in Sections 804.7.1, 804.7.2 and 804.7.3.
6. Existing dead-end corridors shall comply with the requirements in Section 804.8.
7. An operable window complying with Section 1011.5.6 shall be accepted as an *emergency escape and rescue opening*.
8. ~~In Group I-1 and I-2 facilities, required guards enclosing the *occupiable roof* areas shall be permitted to be greater than 48 inches (1219 mm) above the surface of the *occupiable roof* where the occupants, because of clinical needs, require restraint or containment as part of a function of a psychiatric or cognitive treatment area.~~

1011.5.2 Means of egress for change of use to an equal or lower-hazard category. Where a change of occupancy classification is made to an equal or lesser-hazard category (higher number) as shown in Table 1011.5, existing elements of the means of egress shall comply with the requirements of Section 905 for the new occupancy classification. Newly constructed or configured means of egress shall comply with the requirements of Chapter 10 of the *International Building Code*.

Exceptions:

1. Any stairway replacing an existing stairway within a space where the pitch or slope cannot be reduced because of existing construction shall not be required to comply with the maximum riser height and minimum tread depth requirements.
2. ~~In Group I-1 and I-2 facilities, required guards enclosing the *occupiable roof* areas shall be permitted to be greater than 48 inches (1219 mm) above the surface of the *occupiable roof* where the occupants, because of clinical needs, require restraint or containment as part of a function of a psychiatric or cognitive treatment area.~~

Reason: The three sections in this proposal require means of egress (including guards) to comply with Chapter 10 of the IBC. These sections also include an exception that allows guards at occupiable roofs to exceed 48" in height above the roof. However, the base requirement in these sections is to comply with Chapter 10 of the IBC, which only gives a minimum height for guards with no maximum height. In other words, Chapter 10 of the IBC already allows guards to exceed 48" so the exceptions are moot and are essentially exceptions to requirements that doesn't exist. Because of this, this proposal is to delete these exceptions.

It is believed that these exceptions are trying to address the maximum 48" height for enclosures around occupied roofs that is in IBC Section 503.1.4.1, but the exceptions don't change this requirement. Also, the allowance to exceed 48" in I-1 and I-2 facilities isn't included in the IBC for new buildings, so it doesn't make sense to allow this in existing buildings that are being altered or are going through a change of occupancy.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal simply deletes exceptions that currently have no impact on the code (they are exceptions to requirements that don't exist), so there is no cost impact.

EB88-25

EB89-25

IEBC: 804.6.5

Proponents: John Woestman, Kellen Company, representing Builders Hardware Manufacturers Association (BHMA) (jwoestman@kellencompany.com)

2024 International Existing Building Code

Revise as follows:

804.6.5 Emergency power source in Group I-3. In Group I-3, ~~Power~~power-operated sliding doors ~~or~~ and power-operated locks for swinging doors shall be operable by a manual release mechanism at the door. Emergency power shall be provided for the doors and locks in accordance with Section 2702 of the *International Building Code*.

Exceptions:

1. Emergency power is not required in *facilities* with 10 or fewer locks complying with the exception to Section 408.4.1 of the *International Building Code*.
2. Emergency power is not required where remote mechanical operating releases are provided.

Reason: The title of this section indicates the requirements in this section apply only to Group I-3. However, the current text, as written, technically would apply to all occupancy groups. The proposed revision aligns the requirements with the scope of the title. Also, "and" is more appropriate than "or" in the first sentence.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

Editorial. The proposed revisions align the intended scope of the requirements.

EB89-25

EB90-25

IEBC: 804.7.1, 804.7.2, NFPA Chapter 16 (New), UL Chapter 16 (New)

Proponents: Marcelo Hirschler, representing GBH International (mmh@gbhint.com)

2024 International Existing Building Code

804.7 Openings in corridor walls. Openings in corridor walls in any *work area* shall comply with Sections 804.7.1 through 804.7.4.

Exception: Openings in corridors where such corridors are not required to be rated in accordance with the *International Building Code*.

Revise as follows:

804.7.1 Corridor doors. Corridor doors in the *work area* shall not be constructed of hollow core wood and shall not contain louvers. Dwelling unit or sleeping unit corridor doors in *work areas* in buildings of Groups R-1, R-2 and I-1 shall be not less than $1\frac{3}{8}$-inch (35 mm) solid core wood or *approved* equivalent and shall not have any glass panels, other than *approved* wired glass or other *approved* glazing material in metal frames. Dwelling unit or sleeping unit corridor doors in *work areas* in buildings of Groups R-1, R-2 and I-1 shall be equipped with *approved* door closers. Replacement doors shall be $1\frac{3}{4}$-inch (44 mm) solid bonded wood core or *approved* equivalent, unless the existing frame will accommodate only a $1\frac{3}{8}$-inch (35 mm) door.

Exceptions:

1. Corridor doors within a dwelling unit or sleeping unit.
2. Existing doors meeting the requirements of *Guidelines on Fire Ratings of Archaic Materials and Assemblies* (Resource A) for a rating of 15 minutes or more shall be accepted as meeting the provisions of this requirement.
3. Existing doors in buildings protected throughout with an *approved* automatic sprinkler system shall be required only to resist smoke, be reasonably tight fitting and shall not contain louvers.
4. In group homes with not more than 15 occupants and that are protected with an *approved* automatic detection system, closing devices are not required.
5. Door assemblies having a fire protection rating of not less than 20 minutes, when tested, without the hose stream test, in accordance with NFPA 252, UL 10B, or UL 10C..

804.7.2 Transoms. In all buildings of Group I-1, I-2, R-1 and R-2 occupancies, all transoms in corridor walls in *work areas* shall be either glazed with $\frac{1}{4}$-inch (6.4 mm) wired glass set in metal frames or other glazing assemblies having a fire protection rating as required for the door, by Section 804.7.1, and permanently secured in the closed position or sealed with materials consistent with the corridor construction.

Add new standard(s) as follows:

NFPA

National Fire Protection Association
1 Batterymarch Park
Quincy, MA 02169-7471

252 (2022)	Standard Methods of Fire Tests of Door Assemblies
10B--2008	Fire Tests of Door Assemblies--with Revisions through May 2020
10C--2016	Positive Pressure Fire Tests of Door Assemblies--with Revisions through May 2021

Reason: Whenever fire testing is required it is important to state which test standard is to be used. These standards are all already referenced in the IBC.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

clarification as to which test standards to use

Staff Analysis: Staff Analysis: The proposed referenced standards are currently referenced in the IBC:

- NFPA 252--2022, Standard Methods of Fire Test of Door Assemblies
- UL 10B--2008, Fire Tests of Door Assemblies--with Revisions through May 2020
- UL 10C--2016, Positive Pressure Fire Tests of Door Assemblies--with Revisions through May 2021

EB90-25

EB91-25

IEBC: 807.1, 807.4 (New), ASHRAE Chapter 16 (New)

Proponents: Jonathan Flannery, representing Pandemic Task Force Code Development Working Group, PTF CDWG (jflannery@aha.org)

2024 International Existing Building Code

Revise as follows:

807.1 Reconfigured or converted spaces. Reconfigured spaces intended for occupancy and spaces converted to habitable or occupiable space in any *work area* shall be provided with natural or mechanical ventilation in accordance with the *International Mechanical Code*.

Exception: Existing mechanical ventilation systems shall comply with the requirements of Section 807.2 and 807.4

Add new text as follows:

807.4 Airflow for increased filtration. In group A, B, E, and I occupancies, ducted mechanical systems that are altered shall be sized to accommodate a design airflow at a total static pressure drop that assumes the utilization of a supply air filter with a Minimum Efficiency Reporting Value of not less than 13 (MERV 13).

Exception: Ventilation for ambulatory care facilities, Group I-1 and Group I-2 occupancies shall be designed and installed in accordance with this code, ASHRAE/ASHE 170 and NFPA 99.

Add new standard(s) as follows:

ASHRAE

ASHRAE
180 Technology Parkway
Peachtree Corners, GA 30092

170--2021 Ventilation of Health Care Facilities

Reason: According to the World Health Organization, 3.2 million people die from household air pollution worldwide[1]. As we spend 90% of our time indoors (inclusive of any occupancy types), this is where we absorb most of the pollutants. There is currently no requirement for filtration in the International Code. MERV 13 is critical to fight both particulate matter and airborne biological contaminants. Since the pandemic, we have seen numerous events of wildfire affecting a large percentage of the population.

- ASHRAE 241 document that MERV-13 filters are 77% efficient at removing infectious aerosol.
- ASHRAE GPC 44 documents that filters with a MERV rating lower than 11 are not effective to at removing PM2.5The choice of filtration level efficiency is made by the person who originally selected and engineered the HVAC system. It is frequently not feasible to upgrade to a MERV-13 in equipment that has not been sized for it.

California Title 24 requires MERV-13 for high-rise residential buildings, nonresidential and hotel/motel buildings.

Washington State legislature in the State Building Code Adoption and Amendment of the 2021 Edition of the International Mechanical Code WAC 51-52-0605 requires MERV13 for ducted air handlers and ventilation systems serving occupiable spaces in Groups A, B, E, M, R and I.

The Pandemic Task force exclude Group I-1 and I-2 where ventilation and filtration are driven by ASHRAE/ASHE 170 and NFPA 99. The ICC/NEHA Pandemic Task Force (PTF) was organized and tasked with researching the effects of the COVID-19 pandemic on the built environment and developing a roadmap and proposing needed resources – including guidelines, recommended practices, publications and updates to the International Codes® (I-Codes®) – that are necessary to overcome the numerous challenges that may be faced during future pandemics and to construct and manage safe, sustainable and affordable occupancy of the built environment.

The ICC Pandemic Task Force Code Development Work Group (PTF CDWG) has conducted a comprehensive review of current code requirements as they relate to the prevention of the transmission of diseases and other serious health concerns and suggested revisions to current code requirements based on this assessment.

[1] https://www.who.int/news-room/fact-sheets/detail/household-air-pollution-and-health

Cost Impact: Increase

Estimated Immediate Cost Impact:

Commercial ducted system equipment are typically able to accommodate MERV13 filters

Estimated installation cost increase on a 7.5-ton rooftop air conditioning unit (serves ~3,000 ft space) with MERV13 is about 2% or < $0.20 per square foot.

Estimated Immediate Cost Impact Justification (methodology and variables):

As we spend 90% of our time indoors (inclusive of any occupancy types), this is where we absorb most of the pollutants. MERV 13 is critical to fight both particulate matter and airborne biological contaminants.

Staff Analysis: The proposed referenced standards are currently referenced in the IBC:

- ASHRAE 170--2021, Ventilation of Health Care Facilities
- NFPA 99--2024, Health Care Facilities Code

EB91-25

EB92-25

IEBC: 807.3

Proponents: Andrew Bevis, Chair, representing Plumbing, Mechanical and Fuel Gas Code Action Committee (pmgcac@iccsafe.org); Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

807.3 Local exhaust. Newly introduced devices, equipment or operations that produce airborne particulate matter, odors, fumes, vapor, combustion products, gaseous contaminants, pathogenic and allergenic organisms, and microbial contaminants in such quantities as to affect adversely or impair health or cause discomfort to occupants shall be provided with local exhaust in accordance with the International Mechanical Code.

Reason: This section requires “local exhaust” to be provided but does not identify to what criteria. Logically, the exhaust requirements in the family of I-Codes are in the International Mechanical Code (IMC), so the IMC should be specifically referenced to be clear as to what the requirements actually are. There are several requirements in Chapters 4 and 5 of the IMC for local exhaust and thus should meet the requirements of those specific devices, equipment or operations.

The PMGCAC recommends that the Code Correlation Committee assign a [M] scoping to this section because the mechanical committee has oversight on exhaust system requirements. Having the same committee responsible for exhaust requirements in the I-Codes will help ensure consistency.

PMGCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held numerous virtual meetings open to any interested party. Related documents and reports are posted on the PMGCAC website at PMGCAC webpage.

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This change simply clarifies where the requirements for “local exhaust” are located.

EB93-25

IEBC: 901.2, 801.2, 803.2.1, 803.2.2, 803.2.5, 803.3, 804.1, 804.5.1

Proponents: Grant Ullrich, Chair, representing ICC Adaptive Reuse Working Group (grant.ullrich@cityofchicago.org); Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

901.2 Compliance. In addition to the ~~provisions~~ requirements of this chapter, Level 3 *alteration* work shall also comply with ~~all of~~ the requirements of Chapters 7 and 8. ~~The requirements of Sections 802, 803, 804 and 805 shall apply within all *work areas* whether or not they include exits and corridors shared by more than one tenant and regardless of the occupant load.~~ Level 3 *alteration* work shall not be entitled to claim any exception in Chapter 8 that is limited to Level 2 *alterations*.

Exception: Buildings in which the reconfiguration of space affecting exits or shared egress access is exclusively the result of compliance with the accessibility requirements of Section 306.7.1 shall not be required to comply with this chapter.

801.2 ~~Alteration Level 1 compliance~~ Compliance. In addition to the requirements of this chapter, ~~all~~ Level 2 *alteration* work shall also comply with the requirements of Chapter 7.

803.2.1 High-rise buildings. In high-rise buildings, ~~*work areas* that have exits or corridors shared by more than one tenant or that have exits or corridors serving an occupant load greater than 30 shall be provided with~~ automatic sprinkler protection shall be provided in the entire *work area* where the *work area* is located on a floor that has a sufficient sprinkler water supply system from an existing standpipe or a sprinkler riser serving that floor.

Exception: For Level 2 *alterations*, Section 803.2.1 shall not apply to a *work area* that does not contain either:

1. Exits or corridors shared by more than one tenant.
2. Exits or corridors serving an occupant load greater than 30.

803.2.2 Groups A, B, E, F-1, H, I-1, I-3, I-4, M, R-1, R-2, R-4, S-1 and S-2. In buildings with occupancies in Groups A, B, E, F-1, H, I-1, I-3, I-4, M, R-1, R-2, R-4, S-1 and S-2, ~~*work areas* that have exits or corridors shared by more than one tenant or that have exits or corridors serving an occupant load greater than 30~~ the *work area* shall be provided with automatic sprinkler protection where both of the following conditions occur:

1. The *work area* is required to be provided with automatic sprinkler protection in accordance with the *International Building Code* as applicable to new construction.
2. The *work area* exceeds 50 percent of the floor area.

Exceptions:

1. For Level 2 *alterations*, Section 803.2.2 shall not apply to a *work area* that does not contain either:
   1.1. Exits or corridors shared by more than one tenant.
   1.2 Exits or corridors serving an occupant load greater than 30.
2. If the building does not have an existing water supply present at the floor of the proposed *work area* with sufficient pressure and flow for the design of a fire sprinkler system and without installation of a new fire pump, the *work areas* shall be protected by an automatic smoke detection system throughout all occupiable spaces other than sleeping units or individual dwelling units that activates the occupant notification system in accordance with Sections 907.4, 907.5 and 907.6 of the *International Building Code*.

803.2.5 Other required automatic sprinkler systems. In buildings and areas listed in Table 903.2.11.6 of the *International Building*

Code, ~~*work areas* that have exits or corridors shared by more than one tenant or that have exits or corridors serving an occupant load greater than 30~~ the *work area* shall be provided with an automatic sprinkler system under the following conditions:

1. The *work area* is required to be provided with an automatic sprinkler system in accordance with the International Building Code applicable to new construction; and
2. The building has an existing water supply present at the floor of the proposed *work area* with sufficient pressure and flow for the design of an automatic sprinkler system and without installation of a new fire pump.

Exception: For Level 2 *alterations*, Section 803.2.5 shall not apply to a *work area* that does not contain either:

1. Exits or corridors shared by more than one tenant.
2. Exits or corridors serving an occupant load greater than 30.

803.3 Standpipes. Where the *work area* ~~includes exits or corridors shared by more than one tenant and~~ is located more than 50 feet (15 240 mm) above or below the lowest level of fire department access, a standpipe system shall be provided. Standpipes shall have an *approved* fire department connection with hose connections at each floor level above or below the lowest level of fire department access. Standpipe systems shall be installed in accordance with the *International Building Code*.

Exceptions:

1. For Level 2 *alterations*, Section 803.3 shall not apply to a *work area* that does not contain exits or corridors shared by more than one tenant.
2. ~~1~~ A pump shall not be required provided that the standpipes are capable of accepting delivery by fire department apparatus of not less than 250 gallons per minute (gpm) at 65 pounds per square inch (psi) (946 L/m at 448 KPa) to the topmost floor in buildings equipped throughout with an automatic sprinkler system or not less than 500 gpm at 65 psi (1892 L/m at 448 KPa) to the topmost floor in all other buildings. Where the standpipe terminates below the topmost floor, the standpipe shall be designed to meet (gpm/psi) (L/m/KPa) requirements of this exception for possible future extension of the standpipe.
3. ~~2~~ The interconnection of multiple standpipe risers shall not be required.

804.1 Scope. The requirements of this section shall be limited to ~~*work areas* that include exits or corridors shared by more than one tenant within the *work area* in which Level 2 *alterations* are being performed~~ the *work area*, and where specified they shall apply throughout the floor on which the *work areas* are located or otherwise beyond the *work area*.

Exception: For Level 2 *alterations*, Section 804 shall not apply to a *work area* that does not contain exits or corridors shared by more than one tenant.

804.5.1 Minimum number. Every story utilized for human occupancy ~~on which there is a *work area* that includes exits or corridors shared by more than one tenant within the *work area*~~ shall be provided with the minimum number of exits based on the occupancy and the occupant load in accordance with the *International Building Code*. In addition, the exits shall comply with Sections 804.5.1.1 and 804.5.1.2.

Reason: As currently written, Section 901.2 of the IEBC, regarding requirements for Level 3 alteration work, requires a very careful re-reading of provisions in Chapter 8. It also references provisions of Chapter 8 (Sections 802 and 805) that are no longer relevant to the provision. This proposal will clarify that the existing language is intended to expand the scope of 5 specific subsections in Chapter 8 when the scope of work is Level 3: 803.2.1 (sprinkler protection in high-rise buildings); 803.2.2 (sprinkler protection in certain occupancies); 803.2.5 (sprinkler protection for other conditions); 803.3 (standpipes); and 804.1 (minimum number of exits).

This proposal is submitted by the ICC Adaptive Reuse Working Group (ARWG) and the ICC Building Code Action Committee (BCAC)

ARWG was convened in 2024 by ICC Government Relations to explore opportunities to facilitate the reuse of existing nonresidential buildings for multi-family residential uses through better training on use of the International Codes for adaptive reuse work and potential amendments to the International Codes. ARWG held numerous virtual meetings in 2024 and met in person at the 2024 annual business meeting in Long Beach. ARWG consists of code officials, design professionals, and other interested parties.

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This change will make it easier to follow existing provisions of the work area method. It does not substantively change the code requirements applicable to any work.

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IEBC: CHAPTER 10, SECTION 1001, 1001.1, 1011.1, 1001.2, 1001.2.1, 1001.2.2, 1001.2.2.1, 1001.3, SECTION 1002, 1002.1, 1002.3, 1002.4, SECTION 1003, 1003.1, 1011.6, TABLE 1011.6, 1011.6.1, 1011.6.1.1, 1011.6.2, 1002.2, SECTION 1004 (New), 1004.1 (New), 1011.7, TABLE 1011.7, 1011.7.1, 1011.7.3, 1011.7.2, 1011.6.3, 1011.8, 1011.8.1, 1011.8.2, 1011.8.3, 1011.8.4, SECTION 1005 (New), 1011.3, SECTION 1004, 1004.1, 1011.2, 1011.2.1, 1011.2.1.1, 1011.2.1.1.1, 1011.2.2, SECTION 1005, 1005.1, 1011.5, TABLE 1011.5, 1011.5.1, 1011.5.2, 1011.5.3, 1011.5.4, 1011.5.5, 1011.5.6, SECTION 1010, 1008.1 (New), 1010.1, 1011.4, SECTION 1006, 1009.1 (New), [BS] 1006.1, [BS] 1006.2, [BS] 1006.3, [BS] 1006.4, SECTION 1007, 1010.1 (New), 1007.1, 1007.2, 1007.3, 1007.4, SECTION 1008, 1011.1 (New), 1008.1, SECTION 1009, 1012.1 (New), 1009.1, 1009.2, 1009.3, 1009.4, 1009.5, SECTION 1011

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

CHAPTER 10
CHANGE OF OCCUPANCY

SECTION 1001
GENERAL

Revise as follows:

1001.1 Scope. ~~The provisions of this chapter shall apply where a~~ A *change of occupancy* ~~occurs, as defined in Section 202.~~ shall comply with this chapter.

~~**1011.1**~~ **1001.2** ~~**General**~~ **Applicability.** The provisions of this ~~section~~ chapter shall apply to buildings or portions thereof undergoing a change of occupancy classification. This includes a change of occupancy classification within a group as well as a change of occupancy classification from one group to a different group. The provisions of this section shall also apply where there is a *change of occupancy* within a building or portion thereof and there is a different fire protection system threshold requirement in Chapter 9 of the current *International Building Code* than exists in the current building or space. ~~Such buildings shall also comply with Sections 1002 through 1010 of this code.~~

~~**1001.2**~~ **1001.3 Certificate of occupancy.** A *change of occupancy* or a *change of occupancy* within a space where there is a different fire protection system threshold requirement in Chapter 9 of the current *International Building Code* than exists in the current building or space shall not be made to any structure without the approval of the *code official*. A certificate of occupancy shall be issued where it has been determined that the requirements for the *change of occupancy* have been met.

~~**1001.2.1**~~ **1001.3.1 Change of use.** Any work undertaken in connection with a change in use shall conform to the applicable requirements for the work as classified in Chapter 6 and to the requirements of Sections 1002 through 1010.

Exception: As modified in Section 1204 for *historic buildings*.

~~**1001.2.2**~~ **1001.3.2 Change of occupancy classification.** Where ~~a~~ an existing building or a portion of an existing building, undergoes a change of occupancy classification, the provisions of Sections 1002 through ~~1011~~ 1010 shall apply.

Delete without substitution:

~~**1001.2.2.1 Partial change of occupancy.** Where a portion of an *existing building* undergoes a change of occupancy classification, Section 1011 shall apply.~~

Revise as follows:

~~**1001.3**~~ **1001.4 Certificate of occupancy required.** A certificate of occupancy shall be issued where a *change of occupancy* occurs that

results in a different occupancy classification as determined by the *International Building Code*.

SECTION 1002
SPECIAL USE AND OCCUPANCY

1002.1 Compliance with the building code. Where an *existing building* or part of an *existing building* undergoes a *change of occupancy* to one of the special use or occupancy categories as described in Chapter 4 in the *International Building Code*, the building shall comply with all of the requirements of Chapter 4 of the *International Building Code* for the new occupancy classifications applicable to the special use or occupancy.

~~**1002.3**~~ **1002.2 Change of occupancy in health care.** Where a *change of occupancy* occurs to a Group I-2 or I-1 *facility*, the *work area* with the *change of occupancy* shall comply with the International Building Code.

Exceptions:

1. A *change in use* or occupancy in the following cases shall not be required to meet the *International Building Code*:
   1.1. Group I-2, Condition 2 to Group I-2, Condition 1.
   1.2. Group I-2 to ambulatory health care.
   1.3. Group I-2 to Group I-1.
   1.4. Group I-1, Condition 2 to Group I-1, Condition 1.
2. In a Group I-1 occupancy, where a *change of use* is not in conjunction with a Level 3 *alteration*, a smoke barrier in accordance with Section 420.6 of the *International Building Code* is not required to be added.

~~**1002.4**~~ **1002.2.1 Storage.** In Group I-2 occupancies, equipped throughout with an automatic sprinkler in accordance with Section 903.3.1.1 of the *International Building Code*, where a room 250 square feet (23.2 m^2) or less undergoes a change in occupancy to a storage room, the room shall be separated from the remainder of the building by construction capable of resisting the passage of smoke in accordance with Section 509.4.2 of the *International Building Code*.

SECTION 1003
BUILDING ~~ELEMENTS AND MATERIALS~~ HEIGHT AND AREA

1003.1 General. Building ~~elements and materials~~ height and area for buildings where buildings or ~~in~~ portions of buildings undergoing a change of occupancy classification shall comply with Section ~~1011~~ 1003.2 through 1003.5.

~~**1011.6**~~ **1003.2 Heights and areas.** Hazard categories in regard to height and area shall be in accordance with Table ~~1011.6~~ 1003.2.

TABLE ~~1011.6~~ 1003.2 HEIGHTS AND AREAS HAZARD CATEGORIES

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	H
2	A-1; A-2; A-3; A-4; I; R-1; R-2; R-4, Condition 2
3	E; F-1; S-1; M
4 (Lowest Hazard)	B; F-2; S-2; A-5; R-3; R-4, Condition 1; U

~~**1011.6.1**~~ **1003.3 Height and area for change to a higher-hazard category.** Where a change of occupancy classification is made to a higher-hazard category as shown in Table ~~1011.6~~ 1003.2 , heights and areas of buildings and structures shall comply with the requirements of Chapter 5 of the *International Building Code* for the new occupancy classification.

Exceptions:

1. For high-rise buildings constructed in compliance with a previously issued permit, the type of construction reduction specified in Section 403.2.1 of the *International Building Code* is permitted. This shall include the reduction for columns. The high-rise building is required to be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the *International ~~Building~~ Fire Code*.
2. Buildings that were constructed in compliance with a previously issued permit that have floor assemblies with a 1-1/2-hour fire resistance rating shall not be required to comply with Chapter 5 of the *International Building Code* where all of the following apply:
   2.1. Chapter 5 of the *International Building Code* requires Type IB construction.
   2.2. The building does not include Group H occupancies.
   2.3. The building is protected throughout with an automatic sprinkler system in accordance Section 903.3.1.1 of the *International ~~Building~~ FireCode.*

~~1011.6.1.1~~ 1003.3.1 Fire wall alternative. In other than Groups H, F-1 and S-1, fire barriers and horizontal assemblies constructed in accordance with Sections 707 and 711, respectively, of the *International Building Code* shall be permitted to be used in lieu of fire walls to subdivide the building into separate buildings for the purpose of complying with the area limitations required for the new occupancy where all of the following conditions are met:

1. The buildings are protected throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the *International Fire Code*.
2. The maximum allowable area between fire barriers, horizontal assemblies or any combination thereof shall not exceed the maximum allowable area determined in accordance with Chapter 5 of the *International Building Code* without an increase allowed for an automatic sprinkler system in accordance with Section 506 of the *International Building Code*.
3. The fire-resistance rating of the fire barriers and horizontal assemblies shall be not less than that specified for fire walls in Table 706.4 of the *International Building Code*.

Exception: Where horizontal assemblies are used to limit the maximum allowable area, the required fire-resistance rating of the horizontal assemblies shall be permitted to be reduced by 1 hour provided that the height and number of stories increases allowed for an automatic sprinkler system by Section 504 of the *International Building Code* are not used for the buildings.

~~1011.6.2~~ 1003.4 Height and area for change to an equal or lesser-hazard category. Where a change of occupancy classification is made to an equal or lesser-hazard category as shown in Table ~~1011.6~~ 1003.2, the height and area of the *existing building*shall be deemed acceptable.

~~1002.2~~ 1003.5 Incidental uses. Where a portion of a building undergoes a *change of occupancy* to one of the incidental uses listed in Table 509.1 of the *International Building Code*, the incidental use shall comply with Section 509 of the *International Building Code* applicable to the incidental use.

Add new text as follows:

SECTION 1004
FIRE AND PROTECTION FEATURES

1004.1 General. Building fire and smoke protection features for buildings where buildings or portions of buildings undergoing a change of occupancy classification shall comply with Section 1004.2 through 1004.5.

Revise as follows:

~~1011.7~~ 1004.2 Exterior wall fire-resistance ratings. Hazard categories in regard to fire-resistance ratings of exterior walls shall be in accordance with Table ~~1011.7~~ 1004.2.

TABLE ~~1011.7~~ 1004.2 EXPOSURE OF EXTERIOR WALLS HAZARD CATEGORIES

RELATIVE HAZARD	OCCUPANCY CLASSIFICATION
1 (Highest Hazard)	H
2	F-1; M; S-1
3	A; B; E; I; R
4 (Lowest Hazard)	F-2; S-2; U

~~1011.7.1~~ 1004.3 Exterior wall rating for change of occupancy classification to a higher-hazard category. Where a change of occupancy classification is made to a higher hazard category as shown in Table~~1011.7~~ 1004.2, exterior walls shall have fire-resistance, exterior opening areas and opening protectives as required by the *International Building Code*.

Exception: A 2-hour fire-resistance rating shall be allowed where the building does not exceed three stories in height and is classified as one of the following groups: A-2 and A-3 with an occupant load of less than 300, B, F, M or S.

~~1011.7.3~~ 1004.3.1 Opening protectives. Openings in exterior walls shall be protected as required by the *International Building Code*. Where openings in the exterior walls are required to be protected because of their distance from the lot line, the sum of the area of such openings shall not exceed 50 percent of the total area of the wall in each story.

Exceptions:

1. Where the *International Building Code* permits openings in excess of 50 percent.
2. Protected openings shall not be required in buildings of Group R occupancy that do not exceed three stories in height and that are located not less than 3 feet (914 mm) from the lot line.
3. Exterior opening protectives are not required where an automatic sprinkler system has been installed throughout.
4. Exterior opening protectives are not required where the *change of occupancy* group is to an equal or lower hazard classification in accordance with Table ~~1011.7~~ 1004.2 .

~~1011.7.2~~ 1004.4 Exterior wall rating for change of occupancy classification to an equal or lesser-hazard category. Where a change of occupancy classification is made to an equal or lesser-hazard category as shown in Table 1~~1011.7~~ 1004.2, existing exterior walls, including openings, shall be accepted.

~~1011.6.3~~ 1004.5 Fire barriers. Where a *change of occupancy* classification is made to a higher-hazard category as shown in Table ~~1011.7~~ 1004.2 , fire barriers in separated mixed use buildings shall comply with the fire-resistance requirements of the *International Building Code*.

Exception: Where the fire barriers are required to have a 1-hour fire-resistance rating, existing wood lath and plaster in good condition or existing $^1/_2$-inch-thick (12.7 mm) gypsum wallboard shall be permitted.

~~1011.8~~ 1004.6 Enclosure of vertical shafts. Enclosure of vertical shafts shall be in accordance with Sections ~~1011.8.1~~ 1004.6.1 through ~~1011.8.4~~ 1004.6.4.

~~1011.8.1~~ 1004.6.1 Minimum requirements. Vertical shafts shall be designed to meet the *International Building Code* requirements for atriums or the requirements of this section.

~~1011.8.2~~ 1004.6.2 Stairways. Where a change of occupancy classification is made to a higher-hazard category as shown in Table 1011.5, interior stairways shall be enclosed as required by the *International Building Code*.

Exceptions:

1. In other than Group I occupancies, an enclosure shall not be required for openings serving only one adjacent floor and that are not connected with corridors or stairways serving other floors.
2. Unenclosed existing stairways need not be enclosed in a continuous vertical shaft if each story is separated from other stories by 1-hour fire-resistance-rated construction or *approved* wired glass set in steel frames and all exit corridors are sprinklered in accordance with the *International Building Code* . The openings between the corridor and the tenant space shall have not fewer than one sprinkler above the openings on the tenant side.

3. Existing penetrations of stairway enclosures shall be accepted if they are protected in accordance with the *International Building Code*.

~~1011.8.3~~ 1004.6.3 **Other vertical shafts.** Interior vertical shafts other than stairways, including but not limited to elevator hoistways and service and utility shafts, shall be enclosed as required by the *International Building Code* where there is a *change of use* to a higher-hazard category as specified in Table ~~1011.5~~ 1007.2.

Exceptions:

1. Existing 1-hour interior shaft enclosures shall be accepted where a higher rating is required.
2. Vertical openings, other than stairways, in buildings of other than Group I occupancy and connecting less than six stories shall not be required to be enclosed if the entire building is provided with an *approved* automatic sprinkler system.

~~1011.8.4~~ 1004.6.4 **Openings.** Openings into existing vertical shaft enclosures shall be protected by fire assemblies having a fire protection rating of not less than 1 hour and shall be maintained self-closing or shall be automatic-closing by actuation of a smoke detector. Other openings shall be fire protected in an *approved* manner. Existing fusible link-type automatic door-closing devices shall be permitted in all shafts except stairways if the fusible link rating does not exceed 135°F (57°C).

Add new text as follows:

SECTION 1005
INTERIOR FINISHES

Revise as follows:

~~1011.3~~ 1005.1 **Interior finish.** In ~~areas~~ portions of the building undergoing the change of occupancy classification, the interior finish of walls and ceilings shall comply with the requirements of the *International Building Code* for the new occupancy classification.

SECTION ~~1004~~ 1006
~~FIRE PROTECTION~~ AUTOMATIC SPRINKLER SYSTEMS AND FIRE ALARM AND DETECTONS SYSTEMS

~~1004.1~~ 1006.1 **General.** Fire protection requirements in ~~Section 1011~~ Sections 1006.2 and 1006.3 shall apply where either of the following occur:

1. A building or portion thereof undergoes a *change of occupancy*.
2. A building or portion thereof undergoes a *change of occupancy* and there is a different fire protection system threshold requirement in Chapter 9 of the current *International ~~Building~~ Fire Code* than exists in the current building or portion thereof.

Delete without substitution:

~~1011.2 Fire protection systems.~~ ~~Fire protection systems shall be provided in accordance with Sections 1011.2.1 and 1011.2.2.~~

Revise as follows:

~~1011.2.1~~ 1006.2 **Automatic sprinkler system.** The installation of an automatic sprinkler system shall be required where there is a *change of occupancy* classification and Chapter 9 of the current *International ~~Building~~ Fire Code* requires an automatic sprinkler system based on the new occupancy or where there is a change of occupancy within the space where there is a different fire protection system threshold requirement in Chapter 9 of the current *International ~~Building~~ Fire Code* than exists in the current building or space . The installation of the automatic sprinkler system shall be required within the area of the *change of occupancy* and areas of the building

not separated horizontally and vertically from the change of occupancy by a nonrated permanent partition and horizontal assemblies, fire partition, smoke partition, smoke barrier, fire barrier or fire wall.

Exceptions:

1. An automatic sprinkler system shall not be required in a one- or two-family dwelling constructed in accordance with the International Residential Code.
2. Automatic sprinkler system shall not be required in a townhouse constructed in accordance with the International Residential Code.
3. The townhouse shall be separated from adjoining units in accordance with Section R302.2 of the *International Residential Code*.

~~**1011.2.1.1**~~ **1006.2.1 Nonrequired automatic sprinkler systems.** The *code official* is authorized to permit the removal of an existing automatic sprinkler system where all of the following conditions exist:

1. The system is not required for new construction.
2. Portions of the system that are exposed to the public are removed.
3. The system was not installed as part of any special construction features, including fire-resistance-rated assemblies and smoke-resistive assemblies, conditions of occupancy, means of egress conditions, fire code deficiencies, *approved* modifications or *approved* alternative materials, design and methods of construction, and equipment applying to the building.

~~**1011.2.1.1.1**~~ **1006.2.1.1 Approval.** Plans, investigation and evaluation reports, and other data shall be submitted documenting compliance with Section ~~1011.2.1.1~~ 1006.2.1 for review and approval in support of a determination authorizing the removal of the automatic sprinkler system by the *code official*.

~~**1011.2.2**~~ **1006.2 Fire alarm and detection system.** Where a change in occupancy classification occurs or where there is a *change of occupancy* within a space where there is a different fire protection system threshold requirement in Chapter 9 of the current *International ~~Building~~ Fire Code* than exists in the current building or space that requires a fire alarm and detection system to be provided based on the new occupancy in accordance with Chapter 9 of the *International ~~Building~~ Fire Code*, such system shall be provided throughout the area where the *change of occupancy* occurs. Existing alarm notification appliances shall be automatically activated throughout the building. Where the building is not equipped with a fire alarm system, alarm notification appliances shall be provided throughout the area where the *change of occupancy* occurs in accordance with Section 907 of the *International Building Code* as required for new construction.

SECTION ~~1005~~ 1007
MEANS OF EGRESS

~~**1005.1**~~ **1007.1 General.** Means of egress in a building or in portions of buildings undergoing a change of occupancy classification shall comply with ~~Section 1011~~ Sections 1107.2 through 1107.8.

~~**1011.5**~~ **1007.2 Means of egress, general.** Hazard categories in regard to life safety and means of egress shall be in accordance with Table ~~1011.5~~ 1007.2.

TABLE ~~1011.5~~ 1007.2 MEANS OF EGRESS HAZARD CATEGORIES

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	H
2	I-2; I-3; I-4
3	A; E; I-1; M; R-1; R-2; R-4, Condition 2
4	B; F-1; R-3; R-4, Condition 1; S-1
5 (Lowest Hazard)	F-2; S-2; U

~~**1011.5.1**~~ **1007.3 Means of egress for change to a higher-hazard category.** Where a change of occupancy classification is made to a

higher-hazard category (lower number) as shown in Table ~~1011.5~~ 1007.2 , the means of egress shall comply with the requirements of Chapter 10 of the *International Building Code*.

Exceptions:

1. Stairways shall be enclosed in compliance with the applicable provisions of Section 903.1.
2. Existing stairways including handrails and guards complying with the requirements of Chapter 9 shall be permitted for continued use subject to approval of the *code official*.
3. Any stairway replacing an existing stairway within a space where the pitch or slope cannot be reduced because of existing construction shall not be required to comply with the maximum riser height and minimum tread depth requirements.
4. Existing corridor walls constructed on both sides of wood lath and plaster in good condition or $^1/_2$-inch-thick (12.7 mm) gypsum wallboard shall be permitted. Such walls shall either terminate at the underside of a ceiling of equivalent construction or extend to the underside of the floor or roof next above.
5. Existing corridor doorways, transoms and other corridor openings shall comply with the requirements in Sections 804.7.1, 804.7.2 and 804.7.3.
6. Existing dead-end corridors shall comply with the requirements in Section 804.8.
7. An operable window complying with Section ~~1011.5.6~~ 1007.8 shall be accepted as an *emergency escape and rescue opening*.
8. In Group I-1 and I-2 facilities, required guards enclosing the *occupiable roof* areas shall be permitted to be greater than 48 inches (1219 mm) above the surface of the *occupiable roof* where the occupants, because of clinical needs, require restraint or containment as part of a function of a psychiatric or cognitive treatment area.

~~**1011.5.2**~~ **1007.4 Means of egress for change of use to an equal or lower-hazard category.** Where a change of occupancy classification is made to an equal or lesser-hazard category (higher number) as shown in Table ~~1011.5~~ 1007.2 , existing elements of the means of egress shall comply with the requirements of Section 905 for the new occupancy classification. Newly constructed or configured means of egress shall comply with the requirements of Chapter 10 of the *International Building Code*.

Exceptions :

1. Any stairway replacing an existing stairway within a space where the pitch or slope cannot be reduced because of existing construction shall not be required to comply with the maximum riser height and minimum tread depth requirements.
2. In Group I-1 and I-2 facilities, required guards enclosing the *occupiable roof* areas shall be permitted to be greater than 48 inches (1219 mm) above the surface of the *occupiable roof* where the occupants, because of clinical needs, require restraint or containment as part of a function of a psychiatric or cognitive treatment area.

~~**1011.5.3**~~ **1007.5 Egress capacity.** Egress capacity shall meet or exceed the occupant load as specified in the *International Building Code* for the new occupancy.

~~**1011.5.4**~~ **1007.6 Handrails.** Existing stairways shall comply with the handrail requirements of Section 804.13 in the area of the change of occupancy classification.

~~**1011.5.5**~~ **1007.7 Guards.** Existing guards shall comply with the requirements in Section 804.12 in the area of the change of occupancy classification.

~~**1011.5.6**~~ **1007.8 Existing emergency escape and rescue openings.** Where a *change of occupancy* would require an *emergency escape and rescue opening* in accordance with Section 1031 of the *International Building Code*, operable windows serving as the *emergency escape and rescue opening* shall comply with the following:

1. An existing operable window shall provide a minimum net clear opening of 4 square feet (0.38 m^2) with a minimum net clear opening height of 22 inches (559 mm) and a minimum net clear opening width of 20 inches (508 mm).

2. A replacement window where such window complies with both of the following:

   2.1. The replacement window meets the size requirements in Item 1.

   2.2. The replacement window is the manufacturer's largest standard size window that will fit within the existing frame or existing rough opening. The replacement window shall be permitted to be of the same operating style as the existing window or a style that provides for an equal or greater window opening area than the existing window.

SECTION ~~1010~~ 1008
~~OTHER REQUIREMENTS~~ INTERIOR ENVIRONMENTS

Add new text as follows:

1008.1 General. Interior environments in a building or portions of buildings undergoing a change of occupancy classification shall comply with Sections 1108.2 and 1108.3.

Revise as follows:

~~**1010.1**~~ **1008.2 Light and ventilation.** Light and ventilation shall comply with the requirements of the *International Building Code* for the new occupancy.

~~**1011.4**~~ **1008.3 Enhanced classroom acoustics.** In Group E occupancies, where the *work area* is a Level 3 *alteration*, enhanced classroom acoustics shall be provided in all classrooms with a volume of 20,000 cubic feet (565 m^3) or less. Enhanced classroom acoustics shall comply with the reverberation time in Section 808 of ICC A117.1.

SECTION ~~1006~~ 1009
STRUCTURAL

Add new text as follows:

1009.1 General. Load in a building or portions of buildings undergoing a change of occupancy classification shall comply with Sections 1109.2 and 1109.5.

Revise as follows:

[BS] ~~**1006.1**~~ **1009.2 Live loads.** Structural elements carrying tributary live loads from ~~an area~~ the portion of the building with a *change of occupancy* shall satisfy the requirements of Section 1607 of the *International Building Code*. Design live loads for ~~areas of new~~ portion of the building with a change of occupancy shall be based on Section 1607 of the *International Building Code*. Design live loads for other areas shall be permitted to use previously *approved* design live loads.

Exception: Structural elements whose demand-capacity ratio considering the *change of occupancy* is not more than 5 percent greater than the demand-capacity ratio based on previously *approved* live loads.

[BS] ~~**1006.2**~~ **1009.3 Snow and wind loads.** Where a *change of occupancy* results in a structure being assigned to a higher *risk category* in accordance with Section 1604.5 of the International Building Code , the structure shall satisfy the requirements of Sections 1608 and 1609 of the *International Building Code* for the new *risk category*.

Exception: Where the area of the new occupancy is less than 10 percent of the building area. The cumulative effect of occupancy changes over time shall be considered.

[BS] ~~**1006.3**~~ **1009.4 Seismic loads.** Where a *change of occupancy* results in a building being assigned to a higher *risk category* in accordance with Section 1604.5 of the International Building Code , or where the change is from a Group S or Group U occupancy to any occupancy other than Group S or Group U, the lateral force-resisting system of the building shall comply with Section 304.3.1 for the new

risk category. Where a *change of occupancy* results in a building being assigned to *Risk Category* IV and Seismic Design Category D or F, nonstructural components serving any portion of the building changed to *Risk Category* IV shall comply with the requirements of Section 1613 of the *International Building Code* or shall comply with ASCE 41 using an objective of operational nonstructural performance with the BSE-1N earthquake hazard level.

Exceptions:

1. Where a *change of use* results in a building being reclassified from *Risk Category* I or II to *Risk Category* III and the seismic coefficient, S_{DS}, is less than 0.33, compliance with this section is not required.
2. Where the area of the new occupancy is less than 10 percent of the building area, the occupancy is not changing from a Group S or Group U occupancy, and the new occupancy is not assigned to *Risk Category* IV, compliance with this section is not required. The cumulative effect of occupancy changes over time shall be considered.
3. Unreinforced masonry bearing wall buildings assigned to *Risk Category* III and to Seismic Design Category A or B shall be permitted to use Appendix Chapter A1 of this code.
4. Where the change is from a Group S or Group U occupancy and there is no change of *risk category*, compliance with Section 304.3.2 shall be permitted.

[BS] ~~1006.4~~ 1009.5 Access to Risk Category IV. Any structure that provides operational access to an adjacent structure assigned to *Risk Category* IV as the result of a change of occupancy shall itself comply with Sections 1608 and 1609 of the *International Building Code* and Section 304.3.1 of this code. Where operational access to *Risk Category* IV is less than 10 feet (3048 mm) from either an interior lot line or from another structure, access protection from potential falling debris shall be provided.

SECTION ~~1007~~ 1010
ELECTRICAL

Add new text as follows:

1010.1 General. Electrical systems in a building or portions of buildings undergoing a change of occupancy classification shall comply with Sections 1010.2 through 1010.5.

Revise as follows:

~~1007.1~~ 1010.2 Special occupancies. Where the ~~occupancy of an *existing*~~ a *building* or ~~part~~ portion of an ~~*existing* *building* is changed~~ undergoes a change of occupancy to one of the following special occupancies as described in NFPA 70, the electrical wiring and equipment of the building or portion thereof that contains the proposed occupancy shall comply with the applicable requirements of NFPA 70. Health care *facilities*, including Group I-2, ambulatory health care *facilities* and outpatient clinics, shall also comply with the applicable requirements of NFPA 99:

1. Hazardous locations.
2. Commercial garages, repair and storage.
3. Aircraft hangars.
4. Gasoline dispensing and service stations.
5. Bulk storage plants.
6. Spray application, dipping and coating processes.
7. Health care *facilities*, including Group I-2, ambulatory health care *facilities* and outpatient clinics.
8. Places of assembly.
9. Theaters, audience areas of motion picture and television studios, and similar locations.
10. Motion picture and television studios and similar locations.

11. Motion picture projectors.
12. Agricultural buildings.

~~1007.2~~ **1010.3 Unsafe conditions.** Where ~~the occupancy of an *existing*~~ a *building* or ~~part~~ portion of an ~~*existing* building is changed~~ undergoes a change of occupancy, all *unsafe* conditions shall be corrected without requiring that all parts of the electrical system comply with NFPA 70.

~~1007.3~~ **1010.4 Service upgrade.** Where ~~the occupancy of an *existing*~~ a *building* or ~~part~~ portion of an ~~*existing* building is changed~~ undergoes a change of occupancy, electrical service shall be upgraded to meet the requirements of NFPA 70 for the new occupancy.

~~1007.4~~ **1010.5 Number of electrical outlets.** Where ~~the occupancy of an *existing*~~ a *building* or ~~part~~ portion of an ~~*existing* building is changed~~ undergoes a change of occupancy, the number of electrical outlets shall comply with NFPA 70 for the new occupancy.

SECTION ~~1008~~ 1011
MECHANICAL

Add new text as follows:

1011.1 General. Mechanical systems in a building or portions of buildings undergoing a change of occupancy classification shall comply with Section 1011.2.

Revise as follows:

~~1008.1~~ **1011.2 Mechanical requirements.** Where ~~the occupancy of an~~ a *existing building* or ~~part~~ portion of an ~~*existing* building is changed~~ undergoes a change of occupancy such that the new occupancy is subject to different kitchen exhaust requirements or to increased mechanical ventilation requirements in accordance with the *International Mechanical Code*, the new occupancy shall comply with the respective *International Mechanical Code* provisions.

SECTION ~~1009~~ 1012
PLUMBING

Add new text as follows:

1012.1 General. Mechanical systems in a building or portions of buildings undergoing a change of occupancy classification shall comply with Sections 1012.2 through 1012.6.

Revise as follows:

~~1009.1~~ **1012.2 Increased demand.** Where the ~~occupancy of an *existing* a~~ *building* or ~~part~~ portion of an ~~*existing* building is changed~~ undergoes a change of occupancy such that the new occupancy is subject to increased or different plumbing fixture requirements or to increased water supply requirements in accordance with the *International Plumbing Code*, the new occupancy shall comply with the intent of the respective *International Plumbing Code* provisions.

Exception: Only where the occupant load of the story is increased by more than 20 percent, plumbing fixtures for the story shall be provided in quantities specified in the International Plumbing Code based on the increased occupant load.

~~1009.2~~ **1012.3 Food-handling occupancies.** If the new occupancy is a food-handling establishment, all existing sanitary waste lines above the food or drink preparation or storage areas shall be panned or otherwise protected to prevent leaking pipes or condensation on pipes from contaminating food or drink. New drainage lines shall not be installed above such areas and shall be protected in accordance

with the *International Plumbing Code*.

~~1009.3~~ **1012.4 Interceptor required.** If the new occupancy will produce grease or oil-laden wastes, interceptors shall be provided as required in the *International Plumbing Code*.

~~1009.4~~ **1012.5 Chemical wastes.** If the new occupancy will produce chemical wastes, the following shall apply:

1. If the existing piping is not compatible with the chemical waste, the waste shall be neutralized prior to entering the drainage system or the piping shall be changed to a compatible material.
2. Chemical waste shall not discharge to a public sewer system without the approval of the sewage authority.

~~1009.5~~ **1012.6 Group I-2.** If the occupancy group is changed to Group I-2, the plumbing system and medical gas system shall comply with the applicable requirements of the *International Plumbing Code*.

Delete without substitution:

~~SECTION 1011~~
~~CHANGE OF OCCUPANCY CLASSIFICATION~~

Reason: The intent is to provide a more cohesive organization in Chapter 10 along the line of the chapters in the IBC. Currently Chapter 10 is a series of requirements that all send you to Section 1011. There is no real coordination with the organization in section 1011.

This change also attempts to provide consistent language throughout the chapter.

All the sections in the chapter are included in this revision, just relocated.

1001.1 and 1011.1 – Both sections provide scoping. 1011.1 was more extensive.

1001.2.2 and 1001.2.2.1 are combined for consistency with the rest of the chapter.

1003 – the criteria in this section is specific to height and area (IBC Chapter 5 and 6)

1003.5 – incidental areas in in IBC Chapter 5, so incidental use is better with height and area instead of special occupancies.

1003.3 – the chapter is inconsistent on the reference for the IBC or IFC for sprinkle requirements

1004 is now specific to items related to rating of exterior walls, fire barriers and vertical shafts (IBC Chapter 7)

1005.1 – consistent terminology (IBC Chapter 8)

1006 is not specific to automatic sprinklers and fire alarm and detection system (IBC Chapter 9)

1007.1 – consistent terminology (IBC Chapter 10)

1008 provides criteria for interior environments. Instead of 'other'.

1008.1 – general scoping for the section

1009.1 – general scoping for the section

1009.2 – consistent use of phrase

1009.3 and 1009.4 – need to indicate where 'risk category' comes from, do that people are not looking for a table like you find in other sections.

1010.1 – general scoping for the section
1010.2 to 1010.5 – consistent use of phrase
1011.1 – general scoping for the section
1011.2 – consistent use of phrase
1012.1 – general scoping for the section
1012.2 – consistent use of phrase

Existing 1011 – no criteria is left in the end section – they are all now in the related sections.

This proposal is one of the series of changes to IEBC Chapter 10 from the BCAC. Attached is a clean draft of Chapter 10 if all the proposals pass.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).
BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

- **IEBC Chapter 10 Clean Draft.pdf**
  https://www.cdpaccess.com/proposal/11172/33953/documentation/172936/attachments/download/8720/

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is a reorganization of the chapter. There are no additional construction requirements.

EB94-25

EB95-25

IEBC: 1002.1

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

1002.1 Compliance with the building code. Where an *existing building* or part of an *existing building* undergoes a *change of occupancy* to one of the special use or occupancy categories as described in Chapter 4 in the *International Building Code*, the building shall comply with all of the requirements of Chapter 4 of the *International Building Code* applicable to the following special use or occupancy~~.~~:

1. Covered and open mall buildings
2. Atriums
3. Underground buildings
4. Motor vehicle-related occupancies
5. Group I-2 occupancies
6. Motion picture projection rooms
7. Stages, platforms and technical production areas
8. Special amusement buildings
9. Aircraft-related occupancies
10. Ambulatory care facilities

Reason: Code change EB96-19 removed the list of items where Chapter 4 applies to existing buildings. The proposal said that this would not increase the cost of construction. Underground building was not in the list, but was addressed by 1002.2. The intent of this proposal is to restore the list. The title of 'stages, platforms and technical production areas' was updated to match Section 410.

However, would asking for a building with a partial change of occupancy to have to add the highrise requirement be reasonable? Another example, the ICC 500 committee did not intent for the storm shelter requirements to apply to existing construction – only new. The structural and impact requirements would be extremely difficult for an existing room to meet. In addition, people add to IBC Chapter 4 without consideration of the IEBC. Each of these sections should be considered carefully.

The following are items that were added to the requirements by EB96-19 with a reference to Chapter 4. We respectively ask for comment on what is reasonable to ask for compliance by the experts in each of these areas. In this particular case, a list is relevant.

High-rise building (403)

Group I-3 (408)

Combustible storage (413)

Hazardous materials(414)

Groups H-1, H-2, H-3, H-4 and H-5(415)

Spray application of flammable finishes (416)

Drying rooms (417)

Organic coatings (418)

Artificial decorative vegetation(419)

Groups I-1, R-1, R-2, R-3 and R-4 (420)

Hydrogen fuel rooms (421)

Storm shelters (423)

Play structures (424)

Hyperbaric Facilities (424)

Combustible dusts, grain processing and storage (426)

Medical gas systems (425)

Higher educations laboratories (428)

This proposal is submitted by the ICC Building Code Action Committee (BCAC).
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Cost Impact: Decrease

Estimated Immediate Cost Impact:

This is just one example of what was added by EB96-19. We are providing a cost estimate for adding a new storm shelter. A search on the web stated the cost was between $100 and $350 a square foot depending on the materials used. With an average school size of about 525 plus a staff of 75, and ICC 500 requiring 5 sq.ft. per person - that is a cost between $300,000 and $1,050,000 for an average grade school.

Estimated Immediate Cost Impact Justification (methodology and variables):

Since an existing room or space would be almost impossible to retrofit to meet ICC 500, it is assumed that the a change of occupancy would have to construct a new building, or a shelter within an existing larger volume. Removing this as a requirement for a change of occupancy would remove that additional cost.

EB95-25

EB96-25

IEBC: 1002.4

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org); Jeff O'Neill, Chair, representing Committee on Healthcare (ahc@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

1002.4 Storage. In Group I-2 occupancies, where the smoke compartment is equipped throughout with an automatic sprinkler in accordance with Section 903.3.1.1 of the *International Building Code*, where a room 250 square feet (23.2 m^2) or less undergoes a change in occupancy to a storage room, the room shall be separated from the remainder of the building by construction capable of resisting the passage of smoke in accordance with Section 509.4.2 of the *International Building Code*.

Reason: Group I-2 are becoming fully sprinklered as the are altered and at a rapid pace due to licensure requirements. This allows for improvements as the building is sprinklered. This allowance for smoke compartments is consistent with other allowances for rated corridors and the IFC Chapter 11.

This proposal is one of the series of changes to IEBC Chapter 10 from the BCAC. See the proposal for Chapter 10 reorganization for a clean draft.

This proposal is submitted by the ICC Committee for Healthcare (CHC) and the ICC Building Code Action Committee (BCAC).

The Committee on Healthcare (CHC) was established by the ICC Board of Directors in 2011 to pursue opportunities to study and develop effective and efficient provisions for Hospital, Nursing Homes, Assisted Living and Ambulatory Care Facilities. This committee was formed in cooperation with the American Society for Healthcare Engineering (ASHE). In July of 2017, the ICC Board made CHC a standing committee. In 2023 and 2024 the CHC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the CHC website at CHC webpage.

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This allowance is coordinating this small change of occupancy with other provisions in the IEBC.

EB97-25

IEBC: 1009.2

Proponents: Andrew Bevis, Chair, representing Plumbing, Mechanical and Fuel Gas Code Action Committee (pmgcac@iccsafe.org); Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Delete without substitution:

~~**1009.2 Food-handling occupancies.** If the new occupancy is a food-handling establishment, all existing sanitary waste lines above the food or drink preparation or storage areas shall be panned or otherwise protected to prevent leaking pipes or condensation on pipes from contaminating food or drink. New drainage lines shall not be installed above such areas and shall be protected in accordance with the *International Plumbing Code*.~~

Reason: The IPC does not specifically address the protection of drainage lines in food handling occupancies. Section 701.8 of the IPC was removed in the 2018 IPC that covered drainage lines in food handling occupancies. Thus, this section should have been removed as well. This requirement may be covered in other codes or standards such as the Model Food Code and other local health codes. Additionally, Section 302.2 states that all work within the scope of the IEBC is required to meet the requirements of the other respective I-Codes.

PMGCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held numerous virtual meetings open to any interested party. Related documents and reports are posted on the PMGCAC website at PMGCAC webpage.

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This will not increase the cost of construction. This change is just the clarification of the requirements of the I-codes.

EB98-25

IEBC: 1009.4

Proponents: Andrew Bevis, Chair, representing Plumbing, Mechanical and Fuel Gas Code Action Committee (pmgcac@iccsafe.org); Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

1009.4 Chemical wastes. Where ~~If~~ the new occupancy will produce chemical wastes,not previously approved for the building, the chemical waste system shall comply with the International Plumbing Code. ~~the following shall apply:~~

1. ~~If the existing piping is not compatible with the chemical waste, the waste shall be neutralized prior to entering the drainage system or the piping shall be changed to a compatible material.~~
2. ~~Chemical waste shall not discharge to a public sewer system without the approval of the sewage authority.~~

Reason: The current text is inconsistent with the IPC, so it is being revised incorporate reference to the IPC and ensure that all requirements for chemical waste systems are followed. The PMGCAC recommends that the Code Correlation Committee assign a [P] scoping to this section because the plumbing code committee has oversight on chemical waste requirements. Having the same committee responsible for chemical waste in the I-Codes will help ensure consistency.

PMGCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held numerous virtual meetings open to any interested party. Related documents and reports are posted on the PMGCAC website at PMGCAC webpage.

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is just the clarification of what the I-Codes already require thus there is no impact to the cost of construction.

EB99-25

IEBC: 1011.2.1

Proponents: Eirene Knott, representing BRR Architecture (eirene.knott@brrarch.com); Jeff O'Neill, Chair, representing Committee on Healthcare (ahc@iccsafe.org); Kota Wharton, representing Self (kwharton@grovecityohio.gov)

2024 International Existing Building Code

Revise as follows:

1011.2.1 Automatic sprinkler system. The installation of an automatic sprinkler system shall be required where there is a *change of occupancy* classification and Chapter 9 of the current *International Building Code* requires an automatic sprinkler system based on the new occupancy or where there is a change of occupancy within the space where there is a different fire protection system threshold requirement in Chapter 9 of the current *International Building Code* than exists in the current building or space . The installation of the automatic sprinkler system shall be required within the area of the *change of occupancy* and areas of the building not separated horizontally and vertically from the change of occupancy by a nonrated permanent partition and horizontal assemblies, fire partition, smoke partition, smoke barrier, fire barrier or fire wall.

Exceptions:

1. An automatic sprinkler system shall not be required in a one- or two-family dwelling constructed in accordance with the International Residential Code.
2. Automatic sprinkler system shall not be required in a townhouse constructed in accordance with the International Residential Code.
3. The townhouse shall be separated from adjoining units in accordance with Section R302.2 of the *International Residential Code*.
4. An automatic sprinkler system shall not be required to be installed in a one- or two-family dwelling or townhouse unit where the change of occupancy is to a Group R-4 occupancy, provided smoke alarms and carbon monoxide alarms are provided in accordance with Sections 307 and 308.

Reason: This is one of several proposals up for Group R-4 occupancies.

The intent of this proposal is to not require a group home that is moving into a single family home to add a sprinkler system. The smoke detectors and carbon monoxide detectors are already required in Chapter 3, so the pointer is both to reinforce that requirement, and to improve the safety or the occupants if they home is old enough to not have these warning devices. Cost of adding these are minimal and they have been proven to greatly improve life safety. You would not ask a family that bought an existing home to add a sprinkler system, so this would be consistent with that requirement.

There is a series issue with homelessness in the United States. Many of these individuals would benefit from the opportunity to live in a supervised environment, either on a permanent basis, or a temporary basis to help them get back on their feet. The ADA includes an 'integration mandate' that requires state and local governments the provide services in a residential setting - not just in institutions - Community Integration | ADA.gov. The Fair Housing Act specified that families cannot be determined only by 'blood or marriage', therefor, a people that live in a group home should be treated equally as a family. Fair Housing and Related Law | HUD.gov / U.S. Department of Housing and Urban Development (HUD)

The Department of Justice is suing the state of Pennsylvania over discrimination that restricts community-based housing.

Middle District of Pennsylvania | Justice Department Sues Pennsylvania Over Discriminatory Code Requirements That Restrict Community-Based Housing for People with Disabilities | United States Department of JusticeThere are reports from other states over similar lawsuits.

This proposal is submitted by the ICC Committee for Healthcare (CHC)

The Committee on Healthcare (CHC) was established by the ICC Board of Directors in 2011 to pursue opportunities to study and develop effective and efficient provisions for Hospital, Nursing Homes, Assisted Living and Ambulatory Care Facilities. This committee was formed in cooperation with the American Society for Healthcare Engineering (ASHE). In July of 2017, the ICC Board made CHC a standing committee. In 2023 and 2024 the CHC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code

development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the CHC website at CHC webpage.

Cost Impact: Decrease

Estimated Immediate Cost Impact:

Averge cost for an NFPA13D sprinkler system for new construction is $1.35 per square foot.

Estimated Immediate Cost Impact Justification (methodology and variables):

There are additional expenses with adding a sprinkler system in an existing home, such as removal and replacement of ceiling materials to run sprinkler pipes.

EB99-25

EB100-25

IEBC: 1011.2.1

Proponents: Eirene Knott, representing BRR Architecture (eirene.knott@brrarch.com)

2024 International Existing Building Code

Revise as follows:

1011.2.1 Automatic sprinkler system. The installation of an automatic sprinkler system shall be required where there is a *change of occupancy* classification and Chapter 9 of the current *International Building Code* requires an automatic sprinkler system based on the new occupancy or where there is a change of occupancy within the space where there is a different fire protection system threshold requirement in Chapter 9 of the current *International Building Code* than exists in the current building or space . The installation of the automatic sprinkler system shall be required within the area of the *change of occupancy* and areas of the building not separated horizontally and vertically from the change of occupancy by a nonrated permanent partition and horizontal assemblies, fire partition, smoke partition, smoke barrier, fire barrier or fire wall.

Exceptions:

1. An automatic sprinkler system shall not be required in a one- or two-family dwelling constructed in accordance with the International Residential Code.
2. Automatic sprinkler system shall not be required in a townhouse constructed in accordance with the International Residential Code.
3. The townhouse shall be separated from adjoining units in accordance with Section R302.2 of the *International Residential Code*.
4. In building 3 stories or less above grade plane in height, where the building site does not have sufficient municipal water supply for design of an automatic sprinkler system, the areas with a change of occupancy shall be protected by an automatic smoke detection system throughout all occupiable spaces other than sleeping units or individual dwelling units that activates the occupant notification system in accordance with Sections 907.4, 907.5 and 907.6 of the *International Building Code*
5. In building with more than 3 stories above grade plane in height, where the building does not have an existing water supply present at the floor of the area with sufficient pressure and flow for the design of a fire sprinkler system and without installation of a new fire pump, the *areas with a change of occupancy* shall be protected by an automatic smoke detection system throughout all occupiable spaces other than sleeping units or individual dwelling units that activates the occupant notification system in accordance with Sections 907.4, 907.5 and 907.6 of the *International Building Code*.

Reason: The intent of these exceptions is to allow for situations with insufficient municipal water where a change of occupancy would require sprinklers. This is similar to the language in Section 803.2.2 and 904.1.4. This will assist in the reuse of existing buildings.

This proposal is one of the series of changes to IEBC Chapter 10 from the BCAC. See the proposal for Chapter 10 reorganization for a clean draft.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This coordination of the COO with Chapter 8 and 9. See reason statement.

EB101-25

IEBC: 1011.2.1

Proponents: Grant Ullrich, Chair, representing ICC Adaptive Reuse Working Group (grant.ullrich@cityofchicago.org)

2024 International Existing Building Code

Revise as follows:

1011.2.1 Automatic sprinkler system. The installation of an automatic sprinkler system shall be required where there is a *change of occupancy* classification and Chapter 9 of the current *International Building Code* requires an automatic sprinkler system based on the new occupancy or where there is a change of occupancy within the space where there is a different fire protection system threshold requirement in Chapter 9 of the current *International Building Code* than exists in the current building or space. The installation of the automatic sprinkler system shall be required within the area of the *change of occupancy* and areas of the building not separated horizontally and vertically from the *change of occupancy* by ~~a~~horizontal assemblies and fire partitions, smoke partitions, smoke barriers, fire barriers, fire walls or nonrated permanent partitions ~~and horizontal assemblies, fire partition, smoke partition, smoke barrier, fire barrier or fire wall~~.

Exceptions:

1. An automatic sprinkler system shall not be required in a one- or two-family dwelling constructed in accordance with the International Residential Code.
2. Automatic sprinkler system shall not be required in a townhouse constructed in accordance with the International Residential Code.
3. The townhouse shall be separated from adjoining units in accordance with Section R302.2 of the *International Residential Code*.
4. In buildings with 4 or fewer stories above grade plane and no more than 12,000 square feet (1115 m^2) gross floor area per story, if the building site does not have sufficient municipal water supply for design of an automatic sprinkler system, the area of the *change of occupancy* and areas of the building not separated horizontally and vertically from the area of the *change of occupancy* by horizontal assemblies and fire partitions, smoke partitions, smoke barriers, fire barriers, fire walls or nonrated permanent partitions shall be protected by an automatic smoke detection system throughout all occupiable spaces that activates the occupant notification system in accordance with Sections 907.4, 907.5 and 907.6 of the *International Building Code*.

Reason: The intent of this code change is to facilitate adaptive reuse of existing buildings by reducing one barrier to changes of occupancy classification. The proposed exception is applicable to changes of occupancy classification in part or all of an existing building where:

- the existing building has no more than 4 stories above grade plane
- the existing building has no more than 12,000 square feet of gross floor area per story
- the building site does not have sufficient municipal water supply for design of an automatic sprinkler system.

This exception is modeled on the existing exception to Section 904.1.4 for Level 3 alterations, with the addition of the 4-story and 12,000 square foot per story limitations and removal of the limitation on installing smoke detection within dwelling units and sleeping units. Buildings using this exception will be required to install an automatic smoke detection system that triggers occupant notification throughout occupiable areas that are part of the change of occupancy or open to the area where the change of occupancy occurs.

This exception, like the exception to Section 904.1.4 on which it is modeled, would only apply if a sprinkler system cannot be installed based on the insufficiency of existing water service to the site. If installation of a fire pump or storage tank would allow installation of an automatic sprinkler system without upgrading the existing water service, this exception would not be applicable.

The height in stories and gross floor area per story limitations are intended to facilitate the reuse of "main street" type buildings and prevent this new exception from being used for excessively tall or large existing buildings. (For recent research on how more flexibility in code requirements can promote the adaptive reuse of this type of building, see the bibliography.)

Unlike Section 904.1.4, this provision will also require automatic smoke detection that would trigger occupant notification within any dwelling units or sleeping units that are part of the change of occupancy.

This proposal also makes an editorial change to the main section to clarify that "nonrated" is only intended to modify "permanent partition." The editorially-adjusted phrase is then repeated in the exception.

This proposal is submitted by the ICC Adaptive Reuse Working Group (ARWG).

ARWG was convened in 2024 by ICC Government Relations to explore opportunities to facilitate the reuse of existing nonresidential buildings for multi-family residential uses through better training on use of the International Codes for adaptive reuse work and potential amendments to the International Codes. ARWG held numerous virtual meetings in 2024 and met in person at the 2024 annual business meeting in Long Beach. ARWG consists of code officials, design professionals, and other interested parties.

Bibliography: Marilyn E. Kaplan & Mike Jackson, *Hiding in Plain Sight: How Reconsideration of Codes for Existing and Historic Buildings Can Expand Affordable Housing*, 25 Cityscape: A Journal of Policy Development and Research no. 2 (Industrial Revolution) 403 (2023), available at: https://www.huduser.gov/portal/periodicals/cityscape/vol25num2/ch18.pdf.

Cost Impact: Decrease

Estimated Immediate Cost Impact:

Where installation of a sprinkler system would be required as part of a change of occupancy, but the existing water supply to the site is insufficient (with or without installation of a fire pump on site), this code change would eliminate the expense of upgrading the existing water supply. This avoided expense could range from tens to hundreds of thousands of dollars, based on the nearest available municipal water infrastructure and the extent of upgrade required to secure sufficient water supply.

Estimated Immediate Cost Impact Justification (methodology and variables):

In most cases, installing a new water service line costs at least $10,000, assuming there is a sufficiently sized water main adjacent to the site.

In cases where securing sufficient municipal water service to a site requires upgrading or extending municipal infrastructure in public right of ways, based on the cost recovery policies of the water utility and municipality, this work can easily cost over $100,000.

EB101-25

EB102-25

IEBC: 1011.2.1

Proponents: Grant Ullrich, City of Chicago, representing Self (grant.ullrich@cityofchicago.org)

2024 International Existing Building Code

Revise as follows:

1011.2.1 Automatic sprinkler system. The installation of an automatic sprinkler system shall be required where there is a *change of occupancy* classification and Chapter 9 of the current *International Building Code* requires an automatic sprinkler system based on the new occupancy or where there is a change of occupancy within the space where there is a different fire protection system threshold requirement in Chapter 9 of the current *International Building Code* than exists in the current building or space . The installation of the automatic sprinkler system shall be required within the area of the *change of occupancy* and areas of the building not separated horizontally and vertically from the change of occupancy by a nonrated permanent partition and horizontal assemblies, fire partition, smoke partition, smoke barrier, fire barrier or fire wall.

Exceptions:

1. An automatic sprinkler system shall not be required in ~~a one- or two-family dwelling~~ the following building types where constructed in accordance with the *International Residential ~~Code.~~ Code:*

   1.1. A one- or two-family dwelling.

   ~~3~~ 1.2. ~~The~~ A townhouse ~~shall be~~ that is separated from adjoining units in accordance with Section R302.2 of the *International Residential Code*.

2. ~~Automatic sprinkler system shall not be required in a townhouse constructed in accordance with the International Residential Code.~~

Reason: Section 1011.2.1, which requires installation of a sprinkler system as part of a change of occupancy if required for the new occupancy, currently has what appears to be 3 exceptions. On closer reading what is numbered as exception 3 appears to really be reiterating a requirement of item 2. This code change proposal recognizes that it is really a single exception with slightly different rules for the two types of buildings that can be built under the IRC: dwellings and townhouses.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This change is editorial. See reason statement.

EB103-25

IEBC: 1011.2.1

Proponents: Kirk Nagle, City of Aurora Colorado, representing Colorado Chapter of the ICC

2024 International Existing Building Code

Revise as follows:

1011.2.1 Automatic sprinkler system. The installation of an automatic sprinkler system shall be required where there is a *change of occupancy* classification and Chapter 9 of the current *International Building Code* requires an automatic sprinkler system based on the new occupancy or where there is a change of occupancy within the space where there is a different fire protection system threshold requirement in Chapter 9 of the current *International Building Code* than exists in the current building or space . The installation of the automatic sprinkler system shall be required within the area of the *change of occupancy* and areas of the building not separated horizontally and vertically from the change of occupancy by a nonrated permanent partition and horizontal assemblies, fire partition, smoke partition, smoke barrier, fire barrier or fire wall. For one and two single family dwellings or townhouses go to the IRC for sprinkler requirements.

~~**Exceptions:**~~

1. ~~An automatic sprinkler system shall not be required in a one- or two-family dwelling constructed in accordance with the International Residential Code.~~
2. ~~Automatic sprinkler system shall not be required in a townhouse constructed in accordance with the International Residential Code.~~
3. ~~The townhouse shall be separated from adjoining units in accordance with Section R302.2 of the *International Residential Code*.~~

Reason: The reason for deleting the exceptions is simple and should not be difficult to approve. This section sends people to Chapter 9 of the IBC which has no reference to the IRC and thus an exception here will not be of any use. The reason to have exceptions is when they are called out in a section, are specifically required or listed in the referenced sections. These exceptions send you to the IRC, which is not a problem, but should not be exceptions. This proposal removes unneeded language in the code and poses no hazard or life safety issues.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is a code language cleanup so no justification for cost is needed.

EB104-25

IEBC: 1011.2.1, 1011.2.2, 1001.2, 1011.1

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

1011.2.1 Automatic sprinkler system. The installation of an automatic sprinkler system shall be required where there is a *change of occupancy* classification and Chapter 9 of the current *International Building Code* requires an automatic sprinkler system for new buildings based on the new occupancy ~~or where there is a change of occupancy within the space where there is a different fire protection system threshold requirement in Chapter 9 of the current *International Building Code* than exists in the current building or space~~ . The installation of the automatic sprinkler system shall be required within the area of the *change of occupancy* and areas of the building not separated horizontally and vertically from the change of occupancy by a nonrated permanent partition and horizontal assemblies, fire partition, smoke partition, smoke barrier, fire barrier or fire wall.

Exceptions:

1. An automatic sprinkler system shall not be required in a one- or two-family dwelling constructed in accordance with the International Residential Code.
2. Automatic sprinkler system shall not be required in a townhouse constructed in accordance with the International Residential Code.
3. The townhouse shall be separated from adjoining units in accordance with Section R302.2 of the *International Residential Code*.

1011.2.2 Fire alarm and detection system. ~~Where a change in occupancy classification occurs or where there is a *change of occupancy* within a space where there is a different fire protection system threshold requirement in Chapter 9 of the current *International Building Code* than exists in the current building or space that requires a fire alarm and detection system to be provided based on the new occupancy in accordance with Chapter 9 of the *International Building Code*, such~~ The installation of an fire alarm and detection system shall be required where there is a *change of occupancy* classification and Chapter 9 of the current *International Building Code* requires an fire alarm and detection system for new buildings based on the new occupancy. Such system shall be provided throughout the area where the *change of occupancy* occurs. Existing alarm notification appliances shall be automatically activated throughout the building. Where the building is not equipped with a fire alarm system, alarm notification appliances shall be provided throughout the area where the *change of occupancy* occurs in accordance with Section 907 of the *International Building Code* as required for new construction.

1001.2 Certificate of occupancy. ~~A *change of occupancy* or a *change of occupancy* within a space where there is a different fire protection system threshold requirement in Chapter 9 of the current *International Building Code* than exists in the current building or space shall not be made to any structure without the approval of the *code official*.~~ A certificate of occupancy shall be issued where it has been determined that the requirements for the *change of occupancy* have been met.

1011.1 General. The provisions of this section shall apply to buildings or portions thereof undergoing a change of occupancy classification. This includes a change of occupancy classification within a group as well as a change of occupancy classification from one group to a different group. ~~The provisions of this section shall also apply where there is a *change of occupancy* within a building or portion thereof and there is a different fire protection system threshold requirement in Chapter 9 of the current *International Building Code* than exists in the current building or space.~~ Such buildings shall also comply with Sections 1002 through 1010 of this code.

Reason: 1011.2.1 deals with sprinkler systems and 1022.2.2 deals with fire alarm and detection systems. By the removal of duplicate language, this will make these requirements clearer.

1002.1 and 1011.1 – Fire is one of the items listed in the definition for COO (greater degree of safety, accessibility, structural strength, fire protection, means of egress, ventilation or sanitation)– we don't need to call this out separately or repeat it in these multiple locations.

The definitions are provided here for convenience -
[A]**CHANGE OF OCCUPANCY.** Any of the following shall be considered as a change of occupancy where the current *International Building Code* requires a greater degree of safety, accessibility, structural strength, fire protection, means of egress, ventilation or sanitation than is existing in the current building or structure:

1. Any change in the occupancy classification of a building or structure.
2. Any change in the purpose of, or a change in the level of activity within, a building or structure.
3. A change of use.

[A] CHANGE OF USE. A change in the use of a building or a portion of a building, within the same group classification, for which there is a change in application of the code requirements.

This proposal is one of the series of changes to IEBC Chapter 10 from the BCAC. See the proposal for Chapter 10 reorganization for a clean draft. This proposal is submitted by the ICC Building Code Action Committee (BCAC).
BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is editorial. Please refer to the reason statement.

EB104-25

EB105-25

IEBC: 1011.5, TABLE 1011.5, 1011.6, TABLE 1011.6

Proponents: Eirene Knott, representing BRR Architecture (eirene.knott@brrarch.com); Jeff O'Neill, Chair, representing Committee on Healthcare (ahc@iccsafe.org); Kota Wharton, representing Self (kwharton@grovecityohio.gov)

2024 International Existing Building Code

Revise as follows:

1011.5 Means of egress, general. Hazard categories in regard to life safety and means of egress shall be in accordance with Table 1011.5.

TABLE 1011.5 MEANS OF EGRESS HAZARD CATEGORIES

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	H
2	I-2; I-3; I-4
3	A; E; I-1; M; R-1; R-~~2; R-4, Condition 2~~
4	B; F-1; R-3; R-~~4, Condition 1~~; S-1
5 (Lowest Hazard)	F-2; S-2; U

1011.6 Heights and areas. Hazard categories in regard to height and area shall be in accordance with Table 1011.6.

TABLE 1011.6 HEIGHTS AND AREAS HAZARD CATEGORIES

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	H
2	A-1; A-2; A-3; A-4; I; R-1; R-~~2; R-4, Condition 2~~
3	E; F-1; S-1; M
4 (Lowest Hazard)	B; F-2; S-2; A-5; R-3; R-~~4, Condition 1~~; U

Reason: This is one of several proposals up for Group R-4 occupancies. First, consider the increase of one step for means of egress. The requirments for means of egress between an existing Group R-3 and a Group home has no differences, so what is the intent of indicating an increased hazard? Second, consider an the increase of 2 steps in hazard from an Group R-3 to a Group home. Given the limits for R-3 and R-4, assuming an NFPA13D sprinkler system - Table 504.3 for height, no difference; Table 506.2 of area; R-3 is unlimited, but the smallest R-4 is 7,000 sq.ft. - almost all of the homes in the US are not that large. So what is this really supposed to gain? These increases have no direct requirments for these small facilities, so placing a Group R-4 Condition 2 at higher levels actually is an impediment that requires nothing.

Occupant of R-4 Conditions 2 buildings are required to be capable of self preservation. They are limited in height and area to the same as a Group R-3 building. There is no reason to say these are equivalent hazard to large assembly space, hotels and apartments which can be much larger in area, taller in size and with a much larger occupant load. While residents might be receiving the same level of custodial care (not medical care) as a Group I-2, Condition 2, those facilities can be up to 10 stories with an unlimited number of residents. There facilities are limited to 2-4 stories and 16 residents. In addition, Group R-4 is required to have emergency escape and rescue opening in every bedroom. The Group R-3 and R-4 are treated the same in new construction for height and area and means of egress. There is no justification to consider this a higher hazard than a Group R-3 for a change of occupancy.

There is a series issue with homelessness in the United States. Many of these individuals would benefit from the opportunity to live in a supervised environment, either on a permanent basis, or a temporary basis to help them get back on their feet. The ADA includes an 'integration mandate' that requires state and local goverments the provide services in a residential setting - not just in institutions - Community Integration | ADA.gov. The Fair Housing Act specified that families cannot be determined only by 'blood or marriage', therefor, a people that live in a group home should be treated equally as a family. Fair Housing and Related Law | HUD.gov / U.S. Department of Housing and Urban Development (HUD)

The Department of Justice is suing the state of **Pennsylvania** over discrimination that restricts community-based housing.Middle District of Pennsylvania | Justice Department Sues Pennsylvania Over Discriminatory Code Requirements That Restrict Community-Based Housing for People with Disabilities | United States Department of Justice

There are reports from other states over similar lawsuits.

This proposal is submitted by the ICC Committee for Healthcare (CHC).

The Committee on Healthcare (CHC) was established by the ICC Board of Directors in 2011 to pursue opportunities to study and develop effective and efficient provisions for Hospital, Nursing Homes, Assisted Living and Ambulatory Care Facilities. This committee was formed in cooperation with the American Society for Healthcare Engineering (ASHE). In July of 2017, the ICC Board made CHC a standing committee. In 2023 and 2024 the CHC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the CHC website at CHC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

There is no effective increase, so there is no cost in construction.

EB105-25

EB106-25

IEBC: TABLE 1011.5

Proponents: Grant Ullrich, Chair, representing ICC Adaptive Reuse Working Group (grant.ullrich@cityofchicago.org); Michael Malinowski, representing American Institute of Architects California (mfm@appliedarts.net); Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

TABLE 1011.5 MEANS OF EGRESS HAZARD CATEGORIES

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	H
2	I-2; I-3; I-4
3	A; E; I-1; M; R-1; R-2[a]; R-4, Condition 2
4	B; F-1; R-3; R-4, Condition 1; S-1
5 (Lowest Hazard)	F-2; S-2; U

a. A building or portion of a building undergoing a change of occupancy classification to a Group R-2 occupancy shall be classified as category 4 where the building is protected throughout with an automatic sprinkler system in accordance Section 903.3.1.1 or 903.3.1.2 of the *International Building Code*.

Reason: For a Group B, F-1 or S-1 to Group R-2 change of occupancy classification, this proposed code change will reduce requirements to upgrade elements of the existing means of egress to new construction standards where either: (1) the existing building is protected throughout by an NFPA 13 or 13R-compliant automatic sprinkler system, or (2) a full-building NFPA 13 or 13R automatic sprinkler system is installed as part of the project.

Because a full-building automatic sprinkler system (either NFPA 13 or 13R) provides significant life safety benefits to residential occupants, it is appropriate to require fewer upgrades to existing non-conforming means of egress components compared to the requirements for a building with only a partial sprinkler system.

This proposal does not change requirements for means of egress components that are newly built or newly configured as part of an alteration undertaken along with the change of occupancy classification.

This proposal is submitted by the ICC Adaptive Reuse Working Group (ARWG) and the ICC Building Code Action Committee (BCAC)

ARWG was convened in 2024 by ICC Government Relations to explore opportunities to facilitate the reuse of existing nonresidential buildings for multi-family residential uses through better training on use of the International Codes for adaptive reuse work and potential amendments to the International Codes. ARWG held numerous virtual meetings in 2024 and met in person at the 2024 annual business meeting in Long Beach. ARWG consists of code officials, design professionals, and other interested parties.

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Bibliography: American Institute of Architects, *The Business of Architecture 2024: Firm Survey Report* (2024).

Deltek, Inc., *Clarity: Architecture and Engineering Industry Study (2024)*.

National Fire Sprinkler Association, *Fire Sprinkler Retrofit Guide: Automatic Sprinklers in Existing Buildings, What You Need to Know* (3rd ed., 2019)

Michael A. Webber, *High Performing Firms: By the Numbers*, American Institute of Architects Practice Management Digest (2014).

Cost Impact: Decrease

Estimated Immediate Cost Impact:

This code change will reduce architectural and engineering (A&E) costs for a small project in an already-fully-sprinkled building by

several thousand dollars and for mid-sized and larger projects by tens or hundreds of thousands of dollars by reducing the scope and complexity of professional services required.

This code change will also allow a developer to decide, on a project-specific basis for partial change of occupancy work, whether it is more cost effective to install a sprinkler system in areas other than the new residential occupancy (estimated $2.44 to $10.22 a square foot) or undertake improvements.

Estimated Immediate Cost Impact Justification (methodology and variables):

Assumptions

This proposed change will decrease the cost of construction in the following situations:

1. When converting from an occupancy classified as a Category 4 hazard (Group B, F-1, R-3, R-4, Condition 1, or S-1) to a Group R-2 occupancy in a building that is already equipped throughout with an automatic sprinkler system, fewer aspects of the existing means of egress system will require evaluation (and potentially upgrades) to comply with new construction egress requirements because the change will no longer be consisted to be increasing the hazard category.

2. When undertaking a similar conversion in a building that is not already equipped throughout with an automatic sprinkler system (either no system or a partial system), the owner/designer may elect to either evaluate and upgrade the means of egress to new construction standards or install a full-building sprinkler system. (If the full building is being converted to a Group R-2 occupancy, installation of a full sprinkler system is already required by Sec. 1011.2.1.)

This proposed change will have a significant impact on office-to-residential conversions (Group B to Group R) in buildings that already have a full sprinkler system or are required to install a full sprinkler system as part of the conversion, by reducing the means of egress evaluation and upgrade requirements applicable to this type of work.

Variables

According to an industry study published by Deltek, Inc., in 2023 architecture and engineering firms in the US and Canada collected total revenue per employee of $205,951. Based on a 2014 article published in the AIA Practice Management Digest, architecture firm employees bill for approximately 1,300 hours per year (direct labor hours per employee). This means that, on average employees of A&E firms are billed out at approximately $160 per hour. In many cases, additional reimbursable costs are required for travel and testing.

According to a 2019 publication from the National Fire Sprinkler Association, the cost per square foot to retrofit an existing building with an automatic sprinkler system “ranges from $2.44 to $10.22 depending on whether the water supply infrastructure needs to be upgraded.”

Further Justification

Members of the ICC Adaptive Reuse Working Group, including both code officials and design professionals, believe, based on their significant professional experience in numerous US jurisdictions, that this code change will reduce the cost of adaptive reuse projects of the types described above. In many cases, these savings will be substantial and may make an otherwise unfeasible project feasible.

EB106-25

EB107-25

IEBC: 1011.5.1

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

1011.5.1 Means of egress for change to a higher-hazard category. Where a change of occupancy classification is made to a higher-hazard category (lower number) as shown in Table 1011.5, the means of egress shall comply with the requirements of Chapter 10 of the *International Building Code*.

Exceptions:

1. Stairways shall be enclosed in compliance with the applicable provisions of Section ~~903.1~~ 1011.8.
2. Existing stairways including handrails and guards complying with the requirements of Chapter 9 shall be permitted for continued use subject to approval of the *code official*.
3. Any stairway replacing an existing stairway within a space where the pitch or slope cannot be reduced because of existing construction shall not be required to comply with the maximum riser height and minimum tread depth requirements.
4. Existing corridor walls constructed on both sides of wood lath and plaster in good condition or $^{1}/_{2}$-inch-thick (12.7 mm) gypsum wallboard shall be permitted. Such walls shall either terminate at the underside of a ceiling of equivalent construction or extend to the underside of the floor or roof next above.
5. Existing corridor doorways, transoms and other corridor openings shall comply with the requirements in Sections 804.7.1, 804.7.2 and 804.7.3.
6. Existing dead-end corridors shall comply with the requirements in Section 804.8.
7. An operable window complying with Section 1011.5.6 shall be accepted as an *emergency escape and rescue opening*.
8. In Group I-1 and I-2 facilities, required guards enclosing the *occupiable roof* areas shall be permitted to be greater than 48 inches (1219 mm) above the surface of the *occupiable roof* where the occupants, because of clinical needs, require restraint or containment as part of a function of a psychiatric or cognitive treatment area.

Reason: IEBC 2024 s. 1011.5.1, Exception 1 refers to IEBC 2024 s 903.1. That section stipulates that: “Existing stairways that are part of the means of egress shall be enclosed in accordance with Section 802.2.1 from the highest work area floor to, and including, the level of exit discharge and all floors below.” Section 802.2.1 requires that: “Existing interior vertical openings connecting two or more floors shall be enclosed with approved assemblies having a fire-resistance rating of not less than 1 hour with approved opening protectives”. That section then provides several exceptions based on certain Occupancy Classifications.
IEBC 2024 s. 1011.8 is more restrictive than the requirements of Section 802.2.1.
IEBC 2024 s. 102.1 stipulates: “Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable. Where, in any specific case, different sections of this code specify different materials, methods of construction or other requirements, the most restrictive shall govern.”
It is unnecessary to have code users be directed to Section 903.1 and, subsequently, Section 802.2.1 when Section 1011.8 is the most restrictive and governs.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal does not add any additional requirements beyond those currently required.

EB107-25

EB108-25

IEBC: 1011.5.1, 1011.6.3, 1011.6.4 (New), 1203.7, 1204.10

Proponents: Grant Ullrich, Chair, representing ICC Adaptive Reuse Working Group (grant.ullrich@cityofchicago.org); Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

1011.5.1 Means of egress for change to a higher-hazard category. Where a change of occupancy classification is made to a higher-hazard category (lower number) as shown in Table 1011.5, the means of egress shall comply with the requirements of Chapter 10 of the *International Building Code*.

Exceptions:

1. Stairways shall be enclosed in compliance with the applicable provisions of Section 903.1.
2. Existing stairways including handrails and guards complying with the requirements of Chapter 9 shall be permitted for continued use subject to approval of the *code official*.
3. Any stairway replacing an existing stairway within a space where the pitch or slope cannot be reduced because of existing construction shall not be required to comply with the maximum riser height and minimum tread depth requirements.
4. Existing corridor walls constructed on both sides of ~~wood~~ lath and plaster in good condition or ~~1/2 inch thick (12.7 mm)~~ gypsum wallboard with a thickness of at least 1/2 inch (12.7 mm) shall be permitted. Such walls shall either terminate at the underside of a ceiling of equivalent construction or extend to the underside of the floor or roof next above.
5. Existing corridor doorways, transoms and other corridor openings shall comply with the requirements in Sections 804.7.1, 804.7.2 and 804.7.3.
6. Existing dead-end corridors shall comply with the requirements in Section 804.8.
7. An operable window complying with Section 1011.5.6 shall be accepted as an *emergency escape and rescue opening*.
8. In Group I-1 and I-2 facilities, required guards enclosing the *occupiable roof* areas shall be permitted to be greater than 48 inches (1219 mm) above the surface of the *occupiable roof* where the occupants, because of clinical needs, require restraint or containment as part of a function of a psychiatric or cognitive treatment area.

1011.6.3 Fire barriers. Where a *change of occupancy* classification is made to a higher-hazard category as shown in Table 1011.6, fire barriers in separated mixed use buildings shall comply with the fire-resistance requirements of the *International Building Code*.

Exception: Where the fire barriers are required to have a 1-hour fire-resistance rating, existing ~~wood~~ lath and plaster in good condition or existing ~~1/2 inch thick (12.7 mm)~~ gypsum wallboard with a thickness of at least 1/2 inch (12.7 mm) shall be permitted.

Add new text as follows:

1011.6.4 Fire partitions. Fire partitions shall comply with the fire-resistance requirements of the *International Building Code*.

Exception: Where the fire partitions are required to have a 1/2-hour or 1-hour fire-resistance rating, existing lath and plaster in good condition or existing gypsum wallboard with a thickness of at least 1/2 inch (12.7 mm) shall be permitted.

Revise as follows:

1203.7 ~~One-hour fire-resistant~~ Fire-resistant assemblies. Where 1/2-hour or 1-hour fire-resistance-rated construction is required by these provisions, it need not be provided, regardless of construction or occupancy, where the existing wall and ceiling ~~finish~~ surface is ~~wood or metal~~ lath and plaster in good condition or gypsum wallboard with a thickness of at least 1/2 inch (12.7 mm).

1204.10 ~~One-hour fire-resistant~~ Fire-resistant assemblies. Where 1/2-hour or 1-hour fire-resistance-rated construction is required by these provisions, it need not be provided, regardless of construction or occupancy, where the existing wall and ceiling ~~finish~~ surface is ~~wood~~ lath and plaster in good condition or gypsum wallboard with a thickness of at least 1/2 inch (12.7 mm).

Reason: Several provisions of the IEBC allow existing plaster or gypsum wallboard surfaces to be accepted in lieu of a 1-hour fire-resistance rating. The current provisions, however, are unnecessarily limited to *wood* lath and plaster and 1/2-inch gypsum wallboard. This proposal will expand the current recognition to other lath materials (notably metal lath) and also greater thicknesses of gypsum wallboard. It will also clarify this recognition also extends to conditions where a fire-resistance rating of less than 1-hour is required.
This proposal is submitted by the ICC Adaptive Reuse Working Group (ARWG) and the ICC Building Code Action Committee (BCAC).

ARWG was convened in 2024 by ICC Government Relations to explore opportunities to facilitate the reuse of existing nonresidential buildings for multi-family residential uses through better training on use of the International Codes for adaptive reuse work and potential amendments to the International Codes. ARWG held numerous virtual meetings in 2024 and met in person at the 2024 annual business meeting in Long Beach. ARWG consists of code officials, design professionals, and other interested parties.

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal will clarify additional common existing interior wall surface materials, such as metal lath and plaster or 3/4" gypsum wallboard, are entitled to the same treatment as the currently listed materials.

EB108-25

EB109-25

IEBC: 1011.6.4 (New)

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org); Jeff O'Neill, Chair, representing Committee on Healthcare (ahc@iccsafe.org)

2024 International Existing Building Code

Add new text as follows:

1011.6.4 Fire partitions. Where a *change of occupancy* classification is made to an occupancy that would require a higher fire resistance rating for corridors in accordance with Section 1020.2 of the *International Building Code*, the fire partitions in corridors shall comply with the fire-resistance and corridor requirements of the *International Building Code*.

Exception: Where the fire partitions are required to have a 1-hour or 1/2-hour fire-resistance rating, existing lath and plaster in good condition or existing gypsum wallboard with a thinkness of at least 1/2 inch (12.7 mm) shall be permitted.

Reason: Groups H, I-1, I-3 and R are required to have rated corridors in sprinklered buildings. Group A, B and E are not required to have rated corridors in sprinklered buildings. If an A, B or E occupancy changes to a Group I-1, I-3 or R, this important passive fire protection system should be provided. The exception is currently permitted in Section 1011.6.3 for fire partitions. It seems reasonable to also allow that for fire partitions.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).
BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: Increase

Estimated Immediate Cost Impact:

If the corridor is rated, there will be no additional costs. If the corridors is unrated, this is a match to the passive fire protection requirements for new construction.

Estimated Immediate Cost Impact Justification (methodology and variables):

1/2 hour walls are typically provided by standard walls. The cost would be if opening protectives needed to be added.

EB110-25

IEBC: TABLE 1011.6

Proponents: Grant Ullrich, Chair, representing ICC Adaptive Reuse Working Group (grant.ullrich@cityofchicago.org); Michael Malinowski, representing American Institute of Architects California (mfm@appliedarts.net); Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

TABLE 1011.6 HEIGHTS AND AREAS HAZARD CATEGORIES

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	H
2	A-1; A-2; A-3; A-4; I; R-1; R-2[a]; R-4, Condition 2
3	E; F-1; S-1; M
4 (Lowest Hazard)	B; F-2; S-2; A-5; R-3; R-4, Condition 1; U

a. A building or portion of a building undergoing a change of occupancy classification to a Group R-2 occupancy shall be classified as category 3 where the building is protected throughout with an automatic sprinkler system in accordance Section 903.3.1.1 of the *International Building Code*.

Reason: For a Group E, F-1, M, or S-1 to Group R-2 change of occupancy classification, this proposed code change will reduce requirements to evaluate the existing building height, building area, and construction type where either: (1) the existing building is protected throughout by an NFPA 13-compliant automatic sprinkler system, or (2) a full-building NFPA 13 automatic sprinkler system is installed as part of the project.

Because a full-building NFPA 13 automatic sprinkler system provides significant life safety benefits to residential occupants, it is appropriate to allow greater non-conformity with new construction limits on building height and building area compared to the requirements for the same change of occupancy classification in a building with only a partial sprinkler system.Unlike related proposal 11053, this proposal only refers to NFPA 13 sprinkler systems. The difference is intentional based on the fact that IBC Table 506.2 only provides an area increase for full NFPA 13 sprinkler systems, while IBC Section 1005 allows increased occupant load per egress width in buildings with either NFPA 13 or NFPA 13R systems.

This proposal is submitted by the ICC Adaptive Reuse Working Group (ARWG) and the ICC Building Code Action Committee (BCAC)

ARWG was convened in 2024 by ICC Government Relations to explore opportunities to facilitate the reuse of existing nonresidential buildings for multi-family residential uses through better training on use of the International Codes for adaptive reuse work and potential amendments to the International Codes. ARWG held numerous virtual meetings in 2024 and met in person at the 2024 annual business meeting in Long Beach. ARWG consists of code officials, design professionals, and other interested parties.

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Bibliography: American Institute of Architects, *The Business of Architecture 2024: Firm Survey Report* (2024).

Deltek, Inc., *Clarity: Architecture and Engineering Industry Study (2024)*.

National Fire Sprinkler Association, *Fire Sprinkler Retrofit Guide: Automatic Sprinklers in Existing Buildings, What You Need to Know* 3d ed. (2019)

Michael A. Webber, *High Performing Firms: By the Numbers*, American Institute of Architects Practice Management Digest (2014).

Cost Impact: Decrease

Estimated Immediate Cost Impact:

This code change will reduce architectural and engineering (A&E) costs for a small project in an already-fully-sprinkled building by several thousand dollars and for mid-sized and larger projects by tens or hundreds of thousands of dollars by reducing the scope and complexity of professional services required.

This code change will allow a developer to decide, on a project-specific basis for partial change of occupancy work, whether it is more cost effective to install a sprinkler system in areas other than the new residential occupancy (estimated $2.44 to $10.22 a square foot) or undertake other improvements.

Estimated Immediate Cost Impact Justification (methodology and variables):

Assumptions

This proposed change will decrease the cost of construction in the following situations:

1. When converting from an occupancy classified as a Category 3 hazard (Group E, F-1, M or S-1) to a Group R-2 occupancy in a building that is already equipped throughout with an automatic sprinkler system, the owner will not be required to evaluate and potentially upgrade the construction type of the existing building or separate the existing building into separate buildings with fire walls to meet height and area limitations.

2. When undertaking a similar conversion in a building that is not already equipped throughout with an automatic sprinkler system (either no system or a partial system), the owner/designer may elect to either evaluate and potentially upgrade the existing construction type or to install a full-building sprinkler a system. (If the full building is being converted to a Group R-2 occupancy, installation of a full sprinkler system is already required by Sec. 1011.2.1.)

In many cases, determining the construction type classification of an existing building requires extensive evaluation of existing conditions. In some cases destructive testing is required. Since construction type is determined on a full-building basis, this may require evaluating all areas of a large structure for only a partial change of occupancy.

This proposed change will have a significant impact on school-, industrial- or mercantile-to-residential conversions (Group E, F, M or S to Group R) in buildings that already have a full sprinkler system or are required to install a full sprinkler system as part of the conversion, by reducing the construction type evaluation and upgrade requirements applicable to this type of work.

Variables

According to an industry study published by Deltek, Inc., in 2023 architecture and engineering firms in the US and Canada collected total revenue per employee of $205,951. Based on a 2014 article published in the AIA Practice Management Digest, architecture firm employees bill for approximately 1,300 hours per year (direct labor hours per employee). This means that, on average employees of A&E firms are billed out at approximately $160 per hour. In many cases, additional reimbursable costs are required for travel and testing.

According to a 2019 publication from the National Fire Sprinkler Association, the cost per square foot to retrofit an existing building with an automatic sprinkler system “ranges from $2.44 to $10.22 depending on whether the water supply infrastructure needs to be upgraded.”

Further Justification

Members of the ICC Adaptive Reuse Working Group, including both code officials and design professionals, believe, based on their significant professional experience in numerous US jurisdictions, that this code change will reduce the cost of adaptive reuse projects of the types described above. In many cases, these savings will be substantial and may make an otherwise unfeasible project feasible.

EB110-25

EB111-25

IEBC: 1101.8 (New)

Proponents: Eirene Knott, representing BRR Architecture (eirene.knott@brrarch.com)

2024 International Existing Building Code

Add new text as follows:

1101.8 Roof additions to existing buildings. Materials and methods of application used for roof covering on an addition to an existing building shall comply with the requirements of Chapter 15 of the *International Building Code*.

Exception: *Roof coverings* of additions to existing low-slope roof coverings shall not be required to meet the minimum design slope requirement of 1/4 unit vertical in 12 units horizontal (2-percent slope) in Section 1507 of the *International Building Code* for roofs that provide positive roof drainage and meet the requirements of Sections 1608.3 and 1611.2 of the *International Building Code* .

Reason: The requirement to meet ¼" per foot roof slope is primarily an attempt at eliminating progressive deflection failures for low slope roofs due to ponding. Prior to the code change requiring the ¼" per foot slope, many buildings were constructed between 1/8" per foot and 3/16" per foot. When expanding these existing buildings using the new required ¼" per foot slope is often not feasible. The most common issue encountered is the slope differences creating different roof planes. This differential creates a discontinuation of the roof diaphragm which is a critical piece in the lateral stability of the potential buildings. These discontinuations often do not have a structural solution that is feasible to construct, making the expansions infeasible. In addition to the structural issues there are multiple architectural issues that the ¼" per foot requirement causes. These can include (but are not limited to) having to raise parapets significantly to maintain screening requirements, creating areas in the building that are too low for use, and drainage conditions that are very difficult to design. All structural and architectural concerns can be easily mitigated by allowing the expansion to match the existing roof slope, provided adequate structural stiffness is designed for the new expansion areas. This both has a positive impact on the project cost, as well as avoids the complete infeasibility of some potential expansion projects. Allowing the expansions areas to match the existing slope will expand the useful lifespan of many existing buildings.

Cost Impact: Increase

Estimated Immediate Cost Impact:

If a building addition is not permitted to be provided with the lower sloped roof option to match the existing building, the costs will increase. The costs associated with this increase would be increased parapet heights as well as the costs associated with maintaining the roof diaphragm across two different roof heights. If the building addition is permitted to be provided with the lower sloped roof option, then there may still be an increase in construction costs as the structural elements will need to be modified to allow for the anticipated ponding, but those costs may be negligible as the increased parapets and challenges with the diaphragm would not be required.

Estimated Immediate Cost Impact Justification (methodology and variables):

At the current requirements, which will not allow for the reduction in slope, the costs associated with an existing single story building that is 125,000 square feet with a proposed single story addition of 40,000 square feet can range between $1.5 and $2 million dollars.

EB112-25

IEBC: SECTION 1201, 1201.1, 1201.2 (New), SECTION 1202, 1202.1, 1202.2 (New)

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

SECTION 1201
GENERAL

Revise as follows:

1201.1 Scope. ~~This chapter is intended to provide means for the preservation of *historic buildings.*~~ *Historic buildings* shall comply with ~~the provisions of~~ this chapter ~~relating to their *repair*, *alteration*, relocation and *change of occupancy*.~~

Add new text as follows:

1201.2 Conformance. The building shall be safe for human occupancy as determined by the *International Fire Code* and the *International Property Maintenance Code*. Any *repair*, *alteration* or *change of occupancy* undertaken within the historic building shall comply with the requirements of this code applicable to the work being performed except as permitted otherwise in this chapter.

SECTION 1202
REPAIRS

Revise as follows:

1202.1 General. Repairs to any portion of a *historic building* or structure shall be permitted with original or like materials and original methods of construction, subject to the provisions of this chapter. Hazardous materials, such as asbestos and lead-based paint, shall not be used where the code for new construction would not permit their use in buildings of similar occupancy, purpose and location. The work shall not make the building less complying than it was before the *repair* was undertaken. Work on nondamaged components that is necessary for the required *repair* of damaged components shall be considered part of the *repair* and shall not be subject to requirements for alterations.

Add new text as follows:

1202.2 Conformance. The work shall not make the building less complying than it was before the *repair* was undertaken. Work on nondamaged components that is necessary for the required *repair* of damaged components shall be considered part of the *repair* and shall not be subject to requirements for alterations.

Reason: The intent of this proposal is to allow historic buildings to have the same options as permitted for existing buildings elsewhere in the IEBC. While technically this would be applicable as a chapter or the work area method, this may not be interpreted the same for a stand alone chapter. Currently, this is not clear even as a chapter within the work area method. One example is an existing stairway to remain as is unless it is unsafe.

1201.1 - This change matches the proposal for the proposals to change the scoping requirements consistently throughout the codes.

1201.2 - This new text follows the same format as the other stand alone chapters - Repairs and Relocated buildings. The text is copied from Relocated buildings.

1202.2 - The text is copied from Section 401.2 under Repairs.

This is one of a group of code change proposals related to IEBC Chapter 12 Historic buildings. While they work together, each proposal

can stand on it's own merit. Please see the proposal for the reorganization of this chapter for a clean copy of what this chapter would look like if all the proposals pass.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is a clarification of the intent of the requirements for historic buildings. There is no change to construction requirement.

EB112-25

EB113-25

IEBC: [BS] 1201.2

Proponents: Jonathan Humble, Jonathan Humble, FAIA, LLC, representing Himself (festeel@att.net)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

Revise as follows:

[BS] 1201.2 Report. A *historic building* undergoing *alteration* or *change of occupancy* shall be investigated and evaluated, and a written report shall be prepared and filed with the *code official* by a *registered design professional* where required by the *code official*. The report shall identify ~~all~~ *unsafe* conditions as defined in Section 115 that are clearly visible and able to be accessed by the registered design professional. For buildings assigned to Seismic Design Category D, E or F, a description of the vertical and horizontal elements of the lateral force-resisting system and strengths or weaknesses therein shall be included. Additionally, the report shall describe the components of the building that provide a level of safety substantially below that required of existing nonhistoric buildings.

Exception: An investigation, evaluation and report shall not be required where the *alteration* is scoped by Section 602 as a Level 1 *alteration* and does not make the building or structure less compliant with the provisions of the *International Building Code*.

Reason: The proposal deletes the word “all” in sentence number two. Merriam-Webster dictionary defines “all” as *“whole, entire, total, all mean including everything or everyone without exception.”* (Merriam-Webster, Inc. Copyright © 2024) The problem is that by inserting the word “all” in this requirement is that:

- It assumes that the design professional has access to all parts or portions of an existing building prior to developing construction documents, and
- The current language assumes that the design professional will be performing both a historic alteration, restoration, or repair project and a whole building unsafe building review concurrently.

Frequently design professionals may be restricted from accessing all portions of a building simply because the project may be minor in nature, or the building owner does not wish to have a whole building unsafe analysis, or the building owner may not permit exploratory demolition, or the building owner and/or tenant does not wish to have their operations interrupted, or for whatever other reason. This is why in many cases a contingency ($) is recommended by the design professional as a line item in the project cost as an emergency fund for unknown issues when they arise during the alterations or repairs construction process.

By removing the word “all” will allow the design professional to practice their trade without fear of potential litigation for not finding each and every unsafe condition within a building and allow the design professional to focus their attention on the owner’s project requirements and those unsafe conditions within that project scope.

Further, by adding the phrase “that are clearly visible and able to be accessed by the registered design professional” also allows the design professional to execute their job on the same level playing field as the code official is allowed in Sections 109 Inspections. This also permits the design professional to perform their services without having to provide a guarantee or warrant their services to work that they cannot perform.

Cost Impact: Decrease

Estimated Immediate Cost Impact:

The cost for performing a survey for unsafe conditions, versus a survey of “all” unsafe conditions, should be less cost to the building owner of the historic property as this will mean that only those conditions that are clearly or visually identifiable and accessible will be assessed as part of the survey. Excluded from the services by the design professional will be areas of the building that require exploratory demolition and restoration, the additional services of specialists to perform tests, the services of a general, mechanical, plumbing, electrical or specialized contractor to assist in the concealed exploratory work, and other specialized persons as necessary.

Estimated Immediate Cost Impact Justification (methodology and variables):

Using public cost data information as a guide, take for example the most common historic building which is a residential property. Roughly 70% of the US designated historic buildings are residential properties. For example, assume a two-story residential historic property that is between 1,500 sf and 2,500 sf, a single person from the design professional firm conducts the physical survey in one day, and a second day to prepare and review the report before turning it over to the owner. The estimated cost for a visual survey might range between $2,500 and $4,000 for a survey report. If we add one of the exclusions noted above, such as minor exploratory demolition and restoration, this could increase that cost to over $10,000 for the additional time and visits for the design professional and for the services of a general contractor and restoration expert to execute that work. The general contractors expenses for this minor would be in the range of $3,000 to $5,000 (3 days) to set up, install protection to the remainder of the building, and disassembling the construction area, and the restoration expert $3,000 to $5,000 (3 days) to match the altered area to the remainder of the historic character of the building. This estimate subject to change based on the regional or city/town code indexing (e.g., standard average cost versus cost differences for specific regions) based on the location of the project.

EB113-25

EB114-25

IEBC: [BS] 1201.2

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

[BS] 1201.2 Report. Where required by the code official, a ~~A~~ *historic building* undergoing *alteration* or *change of occupancy* shall be investigated and evaluated, and a written report shall be prepared and filed with the *code official* by a *registered design professional* ~~where required by the *code official*~~. The report shall include the following:

1. ~~The report shall identify all~~ Identification of *unsafe* conditions as ~~defined~~ described in Section 115.
2. Documentation that the property meets the definition of a historic building
3. Where a *character-defining feature* does not meet the requirements in this code the reoport shall include the following:
   3.1. Identificat of the character-defining feature.
   3.2. Identifcation of the applicable code sections of the code not met.
   3.3. Description of how the alternative means will meet the intent of the code, if applicable.
4. Documentation required by other sections of this chapter.
5. For buildings assigned to Seismic Design Category D, E or F, a description of the vertical and horizontal elements of the lateral force-resisting system and strengths or weaknesses therein shall be included.

   ~~Additionally, the report shall describe the components of the building that provide a level of safety substantially below that required of existing nonhistoric buildings.~~

~~Exception~~ Exceptions:

1. Repairs.
2. An investigation, evaluation and report shall not be required where the *alteration* is scoped by Section 602 as a Level 1 *alteration* and does not make the building or structure less compliant with the provisions of ~~the *International Building Code*~~ this code.
3. For buildings within the scope of the *International Residential Code*, the investigation, evaluation and report shall be permitted to be prepared by the owner or owner's representative.

Reason: The proposal eliminates the unpredictability of whether a Report will be required, relieves the code official of determining that the code's definition of historic building is met, and ensures that the information documenting character-defining features and any alternatives becomes part of the official project record. The proposed language follows the intent of the Report in the first editions of the IEBC, although provides more specific direction as to what must be included.

This is one of a group of code change proposals related to IEBC Chapter 12 Historic buildings. While they work together, each proposal can stand on it's own merit. Please see the proposal for the reorganization of this chapter for a clean copy of what this chapter would look like if all the proposals pass.This proposal is submitted by the ICC Building Code Action Committee (BCAC).

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This requirement is for a report on alternative. It does not change the construction costs.

EB114-25

EB115-25

IEBC: 1201.5, [BS] 1205.2

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

1201.5 ~~Unsafe~~ Dangerous or unsafe conditions. Conditions determined by the *code official* to be *dangerous* or *unsafe* shall be remedied. Work shall not be required beyond what is required to remedy the *dangerous* or *unsafe* conditions.

Delete without substitution:

~~**[BS] 1205.2 Dangerous conditions.** Conditions determined by the *code official* to be *dangerous* shall be remedied. Work shall not be required beyond what is required to remedy the *dangerous* condition.~~

Reason: The intent of this proposal is to reinforce what is expected for unsafe conditions. Right now one section is under General and another is at the end of the chapter under Structural. Not all users are keyed into the difference between the definitions for 'dangerous' and 'unsafe'. In addition, the definition of 'unsafe' includes 'dangerous'. This would better serve the user if both criteria are indicated in the general provisions. Unsafe buildings are addressed administratively in Section 115; and are required in the report in section 1201.2.

The following are the existing definitions for reference –

> **[BS]DANGEROUS.** Any building, structure or portion thereof that meets any of the conditions described below shall be deemed dangerous:
> 1.The building or structure has collapsed, has partially collapsed, has moved off its foundation or lacks the necessary support of the ground.
> 2.There exists a significant risk of collapse, detachment or dislodgement of any portion, member, appurtenance or ornamentation of the building or structure under permanent, routine or frequent loads; under actual loads already in effect; or under snow, wind, rain, flood, earthquake aftershock or other environmental loads when such loads are imminent.
>
> **UNSAFE.** Buildings, structures or equipment that are unsanitary, or that are deficient due to inadequate means of egress *facilities*, inadequate light and ventilation, or that constitute a fire hazard, or in which the structure or individual structural members meet the definition of "*Dangerous*," or that are otherwise dangerous to human life or the public welfare, or that involve illegal or improper occupancy or inadequate maintenance shall be deemed *unsafe*. A vacant structure that is not secured against entry shall be deemed *unsafe*.

This is one of a group of code change proposals related to IEBC Chapter 12 Historic buildings. While they work together, each proposal can stand on it's own merit. Please see the proposal for the reorganization of this chapter for a clean copy of what this chapter would look like if all the proposals pass.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is removing redundant language. There is no change to construction requirements.

EB116-25

IEBC: 1201.6 (New)

Proponents: Sean Denniston, Heritage Green Consulting, representing Association for Preservation Technology; James Lindberg, representing National Trust for Historic Preservation (jlindberg@savingplaces.org)

2024 International Existing Building Code

Add new text as follows:

1201.6 Historic Occupancies. The documented occupancy of a qualified historic building or property, or portion thereof, shall be permitted to continue, or be returned to that use, and not be considered as a change of occupancy, regardless of any period of time in which it may have remained unoccupied or occupied by other uses, provided such building or property otherwise conforms to all applicable requirements of this code. Documentation of the previous occupancy shall be provided in the report required by Section 1201.2.

Reason: Referred to as the "Change of Occupancy Penalty," the code's current approach to proposed projects involving a Change of Occupancy is steeped in the approach that existed prior to the first edition of the IEBC in 2003, the '25-50% rule.' While the intent of the 2003 edition of the IEBC was to eliminate barriers to rehabilitation, code changes through the 2024 edition have increased the stringency of buildings undergoing a Change of Occupancy, as compared to the requirements for buildings considered an Alteration - Level 3, part of the Work Area Compliance method.

The 2024 IEBC continues to penalize buildings where a new occupancy or use is proposed by imposing requirements reaching those associated with new construction. This is inconsistent with the intent of the IEBC and a major deterrent to the improvement of vacant or other existing buildings.

The proposal eliminates the unintended barriers and encourages building rehabilitation. Rehabilitation of vacant and underutilized buildings is beneficial to the community, can provide needed housing, and will increase public safety by eliminating the risks associated with vacant or unimproved buildings.

Acceptance of documented historic occupancies has long been a provision of The California Historical Building Code. It will also align with state and federal housing and historic building policy that recognizes the importance of protection of the nation's historic and cultural resources, including through the use of state and federal historic tax credits, as administered by the National Park Service, that have been responsible for the rehabilitation of thousands of historic buildings since 1976.

This proposal is submitted by the Association for Preservation Technology and the National Trust for Historic Preservation and further supported by Main Street America, National Trust Community Investment Corporation and RePurpose Capital (see attached letter of support), which represent a significant portion of national historic preservation organizations.

- **Support for amendments to IEBC.pdf**
  https://www.cdpaccess.com/proposal/11961/35804/documentation/185869/attachments/download/9284/

Bibliography: California Historical Building Code

8-302. Change in occupancy.

The use or character of the occupancy of a qualified historical building or property may be changed from or returned to its historical use or character, providing the qualified historical building or property conforms to the requirements applicable to the new use or character of occupancy as set forth in the CHBC. Such change in occupancy shall not mandate conformance with new construction requirements as set forth in regular code.

Cost Impact: Decrease

Estimated Immediate Cost Impact:

By accepting previous occupancies, aligning requirements for Changes of Occupancy or Use with those for the highest level of Alteration (Level 3), construction costs will be decreased with a cost impact of $0.

Estimated Immediate Cost Impact Justification (methodology and variables):

This proposal will generally decrease the cost of compliance since it will generally reduce the scope of code compliance that is triggered by a change of occupancy. However, the magnitude of the savings is highly dependent on the specifics of the project, particularly the occupancy that will be recommencing use, and cannot be generalized as a typical savings estimate.

EB116-25

EB117-25

IEBC: 1201.6 (New)

Proponents: Sean Denniston, Heritage Green Consulting, representing Association for Preservation Technology (sean@heritagegreenconsulting.com); James Lindberg, representing National Trust for Historic Preservation (jlindberg@savingplaces.org)

2024 International Existing Building Code

Add new text as follows:

1201.6 Tolerances. The *code official* shall be permitted to accept a de minimis variation of up to 10% of a non-structural requirement where:

1. Achieving a required dimension or performance rating is technically infeasible.
2. Where compliance would damage a character-defining feature.
3. Where acceptance of the tolerance would not affect the intent of the code provision or
4. Alternate means to achieve the intent of the code provision are provided.

Documentation of the above shall be provided in the report required by Section 1201.2.

Reason: For historic buildings, the inability to meet all requirements for new construction can result in a resistance to reuse or improve these buildings. Vacant and other existing buildings can be more easily rehabilitated if granted the opportunity to have minimal levels of variation providing the noted specific conditions are met (physical impediments, that the variation is granted for items that are character-defining features, and that the intent of this code will be met). The provision requires the application and basis of tolerances to be documented in the Report prepared by the design professional (or the case of in the case of buildings covered in the scope of the International Residential Code, by the owner. The code official retains the authority to determine which tolerances are acceptable.

Historic buildings were constructed prior to modern construction, and small differences in dimensions are inevitable. Requiring compliance with new construction standards is often not feasible, and the cost of making changes can make a project financially infeasible. Leaving buildings vacant or underutilized or under improved presents significantly greater community risk than the risk presented by dimensional variations determined to have 'diminimus' impact on safety.

Acceptance of the proposal provides the code official necessary flexibility to accept those requirements which will not have significant impact on the level of safety provided by the rehabilitated building. It also eliminates the built in conflict between the application of historic preservation requirements which require the retention of character-defining features, and inflexible code requirements.

The proposal also eliminates the unintended barriers that were intended to be eliminated by the 2003 edition of the IEBC.

This proposal is submitted by the Association for Preservation Technology and the National Trust for Historic Preservation and further supported by Main Street America, National Trust Community Investment Corporation and RePurpose Capital (see attached letter of support), which represent a significant portion of national historic preservation organizations.

- **Support for amendments to IEBC.pdf**
  https://www.cdpaccess.com/proposal/11963/35806/documentation/185883/attachments/download/9420/

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

The proposed change is intended to clarify the amount of variation within the code intent.

EB118-25

IEBC: 1202.3 (New), [BS] 507.4, [BS] 1205.1

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

SECTION 1202
REPAIRS

1202.1 General. Repairs to any portion of a *historic building* or structure shall be permitted with original or like materials and original methods of construction, subject to the provisions of this chapter. Hazardous materials, such as asbestos and lead-based paint, shall not be used where the code for new construction would not permit their use in buildings of similar occupancy, purpose and location.

1202.2 Replacement. Replacement of existing or missing features using original materials shall be permitted. Partial replacement for *repairs* that match the original in configuration, height and size shall be permitted.

Replacement glazing in hazardous locations shall comply with the safety glazing requirements of Chapter 24 of the *International Building Code*.

Exception: Glass block walls, louvered windows and jalousies repaired with like materials.

Add new text as follows:

1202.3 Damaged buildings. For a historic building that has *substantial structural damage* to the vertical and lateral force resisting systems or to the gravity load carrying components, the damaged elements shall be permitted to be restored to their predamage conditions.

Revise as follows:

[BS] 507.4 Structural. *Historic buildings* shall comply with the applicable structural provisions in this chapter.

~~**Exceptions**~~ **Exception:**

1. ~~The~~ *code official* shall be authorized to accept existing floors and existing live loads and to approve operational controls that limit the live load on any floor.
2. ~~*Repair of substantial structural damage* is not required to comply with Sections 405.2.3 and 405.2.4. *Substantial structural damage* shall be repaired in accordance with Section 405.2.1.~~

[BS] 1205.1 General. *Historic buildings* shall comply with the applicable structural provisions for the work as classified in Chapter 6.

~~**Exceptions**~~ **Exception:**

1. ~~The~~ *code official* shall be authorized to accept existing floor and previously *approved* live loads and roof live loads and to approve operational controls that limit the live load or roof live load.
2. ~~Regardless of the level of damage, structural *repairs* shall be permitted to return the building to its predamage condition without additional work.~~

Reason: Historic buildings damaged by flood are addressed in Section 1201.4. This allows for work to not be considered a substantial improvement.

Section 1202.1 and 1202.2 allow for historic buildings to be repaired to their original construction and materials.

The intent of this section is to allow for buildings that receive substantial damage to the vertical and lateral force resisting systems or to the gravity load carrying elements to also be restored rather than meeting new requirements. This is an allowance for historic buildings rather than complying with 405.2.3 and 405.2.4. This is current text for repairs in Section 507.4 Exception 2 and 1205.1 Exception 2.

This is one of a group of code change proposals related to IEBC Chapter 12 Historic buildings. While they work together, each proposal can stand on it's own merit. Please see the proposal for the reorganization of this chapter for a clean copy of what this chapter would look like if all the proposals pass.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This allows for historic buildings to be maintained, so there are no increases to construction requirements.

EB118-25

EB119-25

IEBC: CHAPTER 12, SECTION 1203, 1203.1, 1203.2 (New), 1203.7, 1203.8, 1203.4, 1203.6, 1203.5, 1203.4 (New), 1203.2, 1203.12, 1203.5 (New), 1203.3, 1203.9, 1203.10, 1203.10.1, 1203.10.2, 1203.11, 1203.6 (New), SECTION 1205, [BS] 1205.1, [BS] 1205.2, SECTION 1204, 1204.1, 1204.3 (New), 1204.3, 1204.4, 1204.5, 1204.10, 1204.8, 1204.9, 1204.5 (New), 1204.6, 1204.7, 1204.11, 1204.12, 1204.14, [BS] 1204.13, SECTION 1206, 1205.1 (New), 1206.1, 1205.3 (New)

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

CHAPTER 12
HISTORIC BUILDINGS

Revise as follows:

SECTION 1203
~~FIRE SAFETY~~ ALTERATIONS

1203.1 Scope. *Historic buildings* undergoing *alterations*~~*, changes of occupancy* or that are moved~~ shall comply with Section 1203.

Add new text as follows:

1203.2 Fire and smoke protection features. Fire and smoke protection features in historic buildings shall comply with Sections 1203.2.1 through 1203.2.4.

Revise as follows:

1203.2.1~~**1203.7**~~ **One-hour fire-resistant assemblies.** Where 1-hour fire-resistance-rated construction is required by these provisions, it need not be provided, regardless of construction or occupancy, where the existing wall and ceiling finish is wood or metal lath and plaster.

1203.2.2 ~~**1203.8**~~ **Glazing in fire-resistance-rated systems.** Historic glazing materials are permitted in interior walls required to have a 1-hour fire-resistance rating where the opening is provided with *approved* smoke seals and the area affected is provided with an automatic sprinkler system.

1203.2.3~~**1203.4**~~ **Transoms.** In ~~buildings with automatic sprinkler systems of~~ Group R-1, R-2 or R-3 occupancies, existing transoms in corridors and other fire-resistance-rated walls ~~may~~ shall be permitted to be maintained ~~if~~ where the transom is fixed in the closed position and the building has an automatic sprinkler system. A sprinkler shall be installed on each side of the transom.

1203.2.4 ~~**1203.6**~~ **Stairway enclosure.** In buildings of three stories or less, exit enclosure construction shall limit the spread of smoke by the use of tight-fitting doors and solid elements. Such elements are not required to have a fire-resistance rating.

1203.3 ~~**1203.5**~~ **Interior finishes.** The existing interior finishes shall be accepted where it is demonstrated that they are the historic finishes.

Add new text as follows:

1203.4 Automatic sprinkler systems. Automatic sprinkler systems in historic buildings shall comply with Section 1203.4.1 and 1203.4.2.

Revise as follows:

1203.4.1 ~~1203.2~~ General. Every *historic building* that does not conform to the construction requirements specified in this code for the occupancy or use and that constitutes a distinct fire hazard as defined herein shall be provided with an *approved* automatic sprinkler system as determined appropriate by the *code official*. However, an automatic sprinkler system shall not be used to substitute for, or act as an alternative to, the required number of exits from any *facility*.

1203.4.2~~1203.12~~ Automatic sprinkler systems. Every *historic building* that cannot be made to conform to the construction requirements specified in the *International Building Code* for the occupancy or use and that constitutes a distinct fire hazard shall be deemed to be in compliance if provided with an *approved* automatic sprinkler system.

Exception: Where the *code official* approves an alternative life-safety system.

Add new text as follows:

1203.5 Means of egress. Means of egress in historic buildings shall comply with Section 1203.5.1 through 1203.5.4.

Revise as follows:

1203.5.1 ~~1203.3 Means of egress~~ Width and capacity. Where, in the opinion of the *code official*, there is sufficient width and height for a person to pass through the opening or traverse the means of egress, existing door openings and corridor and stairway widths are not required to meet the widths required by the *International Building Code* or this code. Where *approved* by the *code official*, the front or main exit doors need not swing in the direction of the path of exit travel, provided that other *approved* means of egress having sufficient capacity to serve the total occupant load are provided.

1203.5.2 ~~1203.9~~ Stairway ~~railings~~ handrails and guards. Grand stairways shall be accepted without complying with the handrail and guard requirements. Existing handrails and guards at all stairways shall be permitted to remain, provided they are not structurally *dangerous*.

1203.5.3 ~~1203.10~~ Guards. Guards shall comply with Sections 1203.5.3.1 ~~1203.10.1~~ and 1203.5.3.2 ~~1203.10.2~~.

1203.5.3.1 ~~1203.10.1~~ Height. Existing guards shall comply with the requirements of Section 404.

1203.5.3.2 ~~1203.10.2~~ Guard openings. The spacing between existing intermediate railings or openings in existing ornamental patterns shall be accepted. Missing elements or members of a guard may be replaced in a manner that will preserve the historic appearance of the building or structure.

1203.5.4 ~~1203.11~~ Exit signs. Where exit sign or egress path marking location would damage the historic character of the building, alternative exit signs are permitted with approval of the *code official*. Alternative signs shall identify the exits and egress path.

Add new text as follows:

1203.6 Accessibility. Accessibility in historic buildings shall comply with Section 306.

Delete without substitution:

~~SECTION 1205 STRUCTURAL~~

Revise as follows:

[BS] 1203.7 ~~1205.1 General~~ Structural. *Historic buildings* shall comply with the applicable structural provisions for the work as classified in Chapter 6.

Exceptions:

1. The *code official* shall be authorized to accept existing floor and previously *approved* live loads and roof live loads and to approve operational controls that limit the live load or roof live load.

2. Regardless of the level of damage, structural *repairs* shall be permitted to return the building to its predamaged condition without additional work.

[BS] 1203.7.1 ~~1205.2~~ **Dangerous conditions.** Conditions determined by the *code official* to be *dangerous* shall be remedied. Work shall not be required beyond what is required to remedy the *dangerous* condition.

SECTION 1204
CHANGE OF OCCUPANCY

1204.1 General. *Historic buildings* undergoing a *change of occupancy* shall comply with Section 1203 and 1204. *Historic buildings* undergoing a *change of occupancy* shall comply with the applicable provisions of Chapter 10, except as specifically permitted in this chapter. Where Chapter 10 requires compliance with specific requirements of Chapter 7, Chapter 8 or Chapter 9 and where those requirements are subject to the exceptions in Section 1202, the same exceptions shall apply to this section.

1204.2 Building area. The allowable floor area for *historic buildings* undergoing a *change of occupancy* shall be permitted to exceed by 20 percent the allowable areas specified in Chapter 5 of the *International Building Code*.

Add new text as follows:

1204.3 Fire and smoke protection features.. Fire and smoke protection features in historic buildings undergoing a change of occupancy shall comply with Sections 1204.3.1 through 1204.3.5.

Revise as follows:

1204.3.1 ~~1204.3~~ Location on property. Historic structures undergoing a *change of use* to a higher-hazard category in accordance with Section 1011.7 ~~may~~ shall be permitted to use alternative methods to comply with the fire-resistance and exterior opening protective requirements. Such alternatives shall comply with Section 1201.2.

1204.3.2 ~~1204.4~~ Occupancy separation. Required occupancy separations of 1 hour may be omitted where the building is provided with an *approved* automatic sprinkler system throughout.

1204.3.3 ~~1204.5~~ Roof covering. Regardless of occupancy or use group, roof-covering materials not less than Class C, where tested in accordance with ASTM E108 or UL 790, shall be permitted where a fire-retardant roof covering is required.

1204.3.4 ~~1204.10~~ One-hour fire-resistant assemblies. Where 1-hour fire-resistance-rated construction is required by these provisions, it need not be provided, regardless of construction or occupancy, where the existing wall and ceiling finish is wood lath and plaster.

1204.3.5 ~~1204.8~~ Transoms. In corridor walls required by these provisions to be fire-resistance rated, existing transoms ~~may~~ shall be permitted to be maintained ~~if~~ where the transom is fixed in the closed position, and fixed wired glass set in a steel frame or other *approved* glazing shall be installed on one side of the transom.

Exception: Transoms conforming to Section ~~1203.2.3~~ 1203.4 shall be accepted.

1204.4 ~~1204.9~~ Interior finishes. Where interior finish materials are required to comply with the fire test requirements of Section 803.1 of the *International Building Code*, existing nonconforming materials shall be permitted to be surfaced with an *approved* fire-retardant coating to achieve the required classification. Compliance with this section shall be demonstrated by testing the fire-retardant coating on the same material and achieving the required fire classification. Where the same material is not available, it shall be permitted to test on a similar material.

Exception: Existing nonconforming materials need not be surfaced with an *approved* fire-retardantcoating where the building is

equipped throughout with an automatic sprinkler system installed in accordance with the *International Building Code* and the nonconforming materials can be substantiated as being historic in character.

Add new text as follows:

1204.5 Means of egress. Means of egress in historic buildings shall comply with Section 1204.5.1 through 1204.5.4.

Revise as follows:

1204.5.1 ~~1204.6 Means of egress~~ Width and capacity. Existing door openings and corridor and stairway widths less than those that would be acceptable for nonhistoric buildings under these provisions shall be *approved*, provided that, in the opinion of the *code official*, there is sufficient width and height for a person to pass through the opening or traverse the exit and that the capacity of the exit system is adequate for the occupant load, or where other operational controls to limit occupancy are *approved* by the *code official*.

1204.5.2 ~~1204.7~~ Door swing. Where *approved* by the *code official*, existing front doors need not swing in the direction of exit travel, provided that other *approved* exits having sufficient capacity to serve the total occupant load are provided.

1204.5.3 ~~1204.11~~ Stairways ~~and guards~~. Existing stairways, including handrails and guards, shall comply with the requirements of these provisions. The *code official* shall grant alternatives for stairways ~~and guards if~~ where alternative stairways are found to be acceptable or are judged to meet the intent of these provisions. ~~Existing stairways shall comply with Section 1203.~~

Exception: For buildings less than 3,000 square feet (279 m^2), existing conditions are permitted to remain at all stairways ~~and guards~~.

1204.5.4 ~~1204.12~~ Exit signs. The *code official* ~~may~~ shall be permitted to accept alternative exit sign locations where the location of such signs would damage the historic character of the building or structure. Such signs shall identify the exits and exit path.

1204.6 ~~1204.14~~ Natural light. Where it is determined by the *code official* that compliance with the natural light requirements of Section 1010.1 will lead to loss of historic character or historic materials in the building, the existing level of natural lighting shall be considered to be acceptable.

[BS] 1204.6 ~~1204.13 Exit stair~~ Stairway live load. ~~Existing historic stairways in~~ In historic buildings changed to a Group R-1 or R-2 occupancy, existing stairways shall be accepted where it can be shown that the stairway can support a 75-pounds-per-square-foot (366 kg/m^2) live load.

SECTION 1205 ~~1206~~
RELOCATED BUILDINGS

Add new text as follows:

1205.1 General. Historic buildings that are being relocated shall comply with Sections 1203, 1204 and 1205 as applicable. *Historic buildings* being relocated shall otherwise be considered a *historic building* for the purposes of this code.

Revise as follows:

1205.2 ~~1206.1 Relocated buildings~~ Foundations. Foundations of relocated *historic buildings* and structures shall comply with the *International Building Code*. ~~Relocated *historic buildings* shall otherwise be considered a *historic building* for the purposes of this code. Relocated *historic buildings* and structures shall be sited so that exterior wall and opening requirements comply with the *International Building Code* or with the compliance alternatives of this code.~~

Add new text as follows:

1205.3 Exterior walls. *Historic buildings* that are relocated shall be sited so that exterior wall and opening requirements comply with the *International Building Code* or with the compliance alternatives of this code.

Attached Files

- **BCAC IEBC Chapter 12 clean draft.pdf**
  https://www.cdpaccess.com/proposal/11448/34365/files/download/8929/

Reason: The intent of this proposal is to

1. Separate the chapter into main topics similar to the rest of the IEBC - Repair, Alterations, Change of Occupancy and Relocation.

2. Group the requirements by topic, and in the order similar to the IBC. This is also proposed for IEBC Chapter 3 and 10.

3. Remove 'may' to improve code language.

The following is some additional explanations on specific sections.

1203.1 - the requirements for change of occupancy and relocated buildings have been relocated to 1204.1 and 12051.

12034.5.3 - the last sentence is deleted because this is addressed in 1204.1. The building is historic, not just the stairway.

1205 - The existing section has been separated into topics instead of lumped together. The general statement has been moved up into 1205.1. Foundation and exterior wall requirements are divided into 1205.2 and 1205.3.

The is no technical change in this proposal. Other proposals address technical revisions.

This is one of a group of code change proposals related to IEBC Chapter 12 Historic buildings. While they work together, each proposal can stand on it's own merit. Please see the clean copy of what this chapter would look like if all the proposals pass.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is a reorganization of existing sections with no change in construction requirements.

EB119-25

EB120-25

IEBC: SECTION 1203, 1203.7, SECTION 1204, 1204.10

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

SECTION 1203
~~FIRE SAFETY~~ ALTERATIONS

1203.1 Scope. *Historic buildings* undergoing *alterations*, *changes of occupancy* or that are moved shall comply with Section 1203.

1203.9 ~~Stairway railings~~ Stairways. ~~Grand stairways shall be accepted without complying with the handrail and guard requirements.~~ Existing stairways, including handrails and guards ~~at all stairways~~ shall be permitted to remain, provided they are not structurally *dangerous*.

Any stairway replacing an existing stairway within a space where the pitch or slope cannot be reduced because of existing construction shall not be required to comply with the maximum riser height and minimum tread depth requirements.

Delete without substitution:

~~**1203.10 Guards.** Guards shall comply with Sections 1203.10.1 and 1203.10.2.~~

~~**1203.10.1 Height.** Existing guards shall comply with the requirements of Section 404.~~

Revise as follows:

1203.10 ~~1203.10.2 Guard openings~~ Guards. ~~The~~ For existing guards, the guard height and spacing between existing intermediate railings or openings in existing ornamental patterns shall be ~~accepted~~ permitted to remain where the guards are character defining features. Missing elements or members of a guard ~~may~~ shall be permitted to be replaced to match the existing guards~~in a manner that will preserve the historic appearance of the building or structure~~..

SECTION 1204
CHANGE OF OCCUPANCY

Delete without substitution:

~~**1204.11 Stairways and guards.** Existing stairways shall comply with the requirements of these provisions. The *code official* shall grant alternatives for stairways and guards if alternative stairways are found to be acceptable or are judged to meet the intent of these provisions. Existing stairways shall comply with Section 1203.~~

~~**Exception:** For buildings less than 3,000 square feet (279 m^2), existing conditions are permitted to remain at all stairways and guards.~~

Reason: In the review of the provisions indicated as requirements for stairways, there were serveral terminoloy glitches and redundancies identified.

1203.9 - The intent is to allow the same allowances for stairways in historic buildings as alterations and changes of occupancy in other buildings.

There is no technical reason to call out grand stairways differently from other existing stairways. In addition, what is a 'grand stairway' is not defined in any of the codes, so this is not uniformly enforced.

Section 1011.5.1 Exception 2 allows for existing stairways to remain in a change of occupancy. Exception 3 allows or new stairways replacing existing stairways to maintain a steeper angle if the structure does not allow a lower slope. The revised text matches those allowances.

1203.10 -

Guards are used at dropoffs in addition to along stairways. So guards do need to be addressed for those locations. the intent is the same as stairways, to allow existing guards to remain and be repaired to match.

The current reference to Section 404 for height is to a generic means of egress reference. This is the same as allowing for the guard to remain as is, so the guard height and openings can be addressed in one section.

404.1 General. Repairs shall be done in a manner that maintains the level of protection provided for the means of egress.

1204.11 -

The 2024 commentary for 1204.11 is

"This provision gives an opportunity to analyze the stairway's functionality as an exit, and to alter only those elements that are judged to be unsafe or inadequate, provided that an alternative stairway is considered acceptable. The exception allows existing stairway conditions to remain for smaller buildings, considering the shorter time required for egress and the smaller occupancy."

Section 1203.9 already allows for existing stairways to remain. Alternatives means is already addressed in 1201.2. The stairway width and height is already addressed in 1204.6 with the general means of egress requirements. In addition, there are two technical issues with the current test. This is a generic requirement for stairways, not exit and exit access stairways. Guards in the title and 2nd sentence, but there do not seem to be any requirements for guards in the text. Therefore, it is proposed to remove this text as unnecessary.

This is one of a group of code change proposals related to IEBC Chapter 12 Historic buildings. While they work together, each proposal can stand on it's own merit. Please see the proposal for the reorganization of this chapter for a clean copy of what this chapter would look like if all the proposals pass.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is editorially revising the text to match current allowances for stairways and guards.

EB120-25

EB121-25

IEBC: SECTION 1203, 1203.3, 1204.7, SECTION 1204, 1204.6

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

SECTION 1203
~~FIRE SAFETY~~ ALTERATIONS

1203.1 Scope. *Historic buildings* undergoing *alterations*, *changes of occupancy* or that are moved shall comply with Section 1203.

1203.3 Means of egress. ~~Where, in the opinion of the *code official*, there is sufficient width and height for a person to pass through the opening or traverse the means of egress, existing~~ Existing door openings, ~~and~~ corridor and stairway widths and heights ~~are not required to meet the widths~~ less than those required by the *International Building Code* or this codeshall be *approved*, provided that, in the opinion of the *code official*, the means of egress has sufficient width and height for a person to pass through the opening or traverse the exit. ~~Where *approved* by the *code official*, the front or main exit doors need not swing in the direction of the path of exit travel, provided that other *approved* means of egress having sufficient capacity to serve the total occupant load are provided.~~

1203.4 ~~1204.7~~ Door swing. Where *approved* by the *code official*, existing front or main exit doors need not swing in the direction of exit travel, provided that other *approved* exits having sufficient capacity to serve the total occupant load are provided.

SECTION 1204
CHANGE OF OCCUPANCY

1204.6 Means of egress. Existing door openings, ~~and~~ corridor and stairway widths and heights less than those required by the *International Building Code* or this code~~that would be acceptable for nonhistoric buildings under these provisions~~ shall be *approved*, provided that, in the opinion of the *code official*, the means of egress complies with the following:

1. There ~~there~~ is sufficient width and height for a person to pass through the opening or traverse the exit ~~and~~ .
2. That ~~that~~ the capacity of the exit system is adequate for the occupant load, or where other operational controls to limit occupancy are *approved* by the *code official*.

Reason: The intent of this proposal is to clarify what is required for widths and heights in the means of egress. The current text in Section 1203.3, 1204.6 and 1204.7 are written so differently that it is difficult to determine what is different.

The provisions in Section 1203 are applicable to COO, so duplication is not required. Currently the last sentence of Section 1203.3 and Section 1204.7 have slightly different wording, but appear to have the same requirements. Therefor, door swing is moved to Section 1203.4 and need not be repeated under 1204.The first sentence in Section 1203.3 and Section 1204.6 have most of the same requirement but are written differently. COO also asks for capacity. Both sections are rewritten the same except for the additional Item 2 in COO. To make the sentence consistent within itself, 'and height' was added in the first sentence because the approval is based on sufficient 'width and height'.

This is one of a group of code change proposals related to IEBC Chapter 12 Historic buildings. While they work together, each proposal can stand on it's own merit. Please see the proposal for the reorganization of this chapter for a clean copy of what this chapter would look like if all the proposals pass.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned

International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal is to provide consistency. There are no change to construction requirements.

EB121-25

EB122-25

IEBC: SECTION 1203, 1203.4, SECTION 1204, 1204.8

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

SECTION 1203
~~FIRE SAFETY~~ ALTERATIONS

1203.4 Transoms. In ~~buildings with automatic sprinkler systems of~~ Group R-1, R-2 or R-3 occupancies, existing transoms in ~~corridors and other~~ fire-resistance-rated walls ~~may~~ shall be permitted to be maintained ~~if~~ where the transom is fixed in the closed position and the building has an automatic sprinkler system. A sprinkler shall be installed on each side of the transom.

SECTION 1204
CHANGE OF OCCUPANCY

1204.8 Transoms. ~~In corridor walls required by these provisions to be fire-resistance rated, existing~~ In other than Group R-1, R-2 or R-3 occupancies, existing transoms in walls required to be fire-resistance rated, shall be permitted to ~~may~~ be maintained where the transom is fixed in the closed position, and fixed wired glass set in a steel frame or other *approved* glazing shall be installed on one side of the transom. In Group R-1, R-2 and R-3, transoms shall comply with Section 1203.4.

~~**Exception:** Transoms conforming to Section 1203.4 shall be accepted.~~

Reason: The requirements for transoms in alterations and change of occupancy were compared. Since main corridors are required to be fire-resistance-rated in Group R, it appeared the provisions were meant to apply to rated construction. Since the requirements in Section 1204.8 are less than 1203.4, and the exception sends you do 1203.4, it appears that coordination within these provisions need to be further coordinated and clarified. This is a suggestion for that coordination. We believe this to be the original intent.

This is one of a group of code change proposals related to IEBC Chapter 12 Historic buildings. While they work together, each proposal can stand on it's own merit. Please see the proposal for the reorganization of this chapter for a clean copy of what this chapter would look like if all the proposals pass.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is a coordination item. Please see reason statement.

EB123-25

IEBC: SECTION 1203, 1203.5, SECTION 1204, 1204.9

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

SECTION 1203
~~FIRE SAFETY~~ ALTERATIONS

1203.5 Interior finishes. The existing interior finishes shall be ~~accepted~~ permitted to remain where ~~it is demonstrated that they are the historic finishes~~ such material are character defining features.

SECTION 1204
CHANGE OF OCCUPANCY

1204.9 Interior finishes. Where interior finish materials are required to comply with the fire test requirements of Section 803.1 of the *International Building Code*, existing nonconforming materials shall be permitted to be surfaced with an *approved* fire-retardant coating to achieve the required classification. Compliance ~~with this section~~ shall be demonstrated by testing the fire-retardant coating on the same material and achieving the required fire classification. Where the same material is not available, it shall be permitted to test on a similar material.

Exception: Existing nonconforming materials need not be surfaced with an *approved* fire-retardantcoating where the building is ~~equipped throughout~~ provided with an *approved* automatic sprinkler system ~~installed in accordance with the *International Building Code* and the nonconforming materials can be substantiated as being historic in character~~ and such materials are character defining features.

Reason: The proposal removes unneeded words and coordinates terms with other sections in the Chapter. Such as 'provided with an approved automatic sprinkler system is used throughout the chapter. This is the only section that includes "equipped throughout with an automatic sprinkler system installed in accordance with the International Building Code."

This is one of a group of code change proposals related to IEBC Chapter 12 Historic buildings. While they work together, each proposal can stand on it's own merit. Please see the proposal for the reorganization of this chapter for a clean copy of what this chapter would look like if all the proposals pass.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).

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Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is an editorial change for consistent terminology. There are no changes to construction requirements.

EB124-25

IEBC: SECTION 1203, 1203.7, SECTION 1204, 1204.10

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

SECTION 1203
~~FIRE SAFETY~~ ALTERATIONS

1203.1 Scope. *Historic buildings* undergoing *alterations*, *changes of occupancy* or that are moved shall comply with Section 1203.

1203.7 One-hour fire-resistant assemblies. Where 1-hour fire-resistance-rated construction is required by these provisions, it need not be provided, regardless of construction or occupancy, where the existing wall and ceiling finish is ~~wood or metal~~ lath and plaster or other materials that are a character defining feature.

SECTION 1204
CHANGE OF OCCUPANCY

Delete without substitution:

~~**1204.10 One-hour fire-resistant assemblies.** Where 1-hour fire-resistance-rated construction is required by these provisions, it need not be provided, regardless of construction or occupancy, where the existing wall and ceiling finish is wood lath and plaster.~~

Reason: The revisions to Section 1203.7 is to allow for additional wall materials in historic buildings.

Section 1204.10 is deleted because 1203.7 is applicable for change of occupancies. This does not need to be repeated.

This is one of a group of code change proposals related to IEBC Chapter 12 Historic buildings. While they work together, each proposal can stand on it's own merit. Please see the proposal for the reorganization of this chapter for a clean copy of what this chapter would look like if all the proposals pass.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).

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Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is allowing for existing wall materials to remain. There is no change to construction requirements.

EB125-25

IEBC: SECTION 1203, 1203.8

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

SECTION 1203
~~FIRE SAFETY~~ ALTERATIONS

1203.8 Glazing in fire-resistance-rated systems. ~~Historic glazing~~ Glazing materials that are character defining features are permitted in interior walls required to have a 1-hour fire-resistance rating where the opening is provided with *approved* smoke seals and the area affected is provided with an automatic sprinkler system.

Reason: This is a clarification of working, the buildings are historic, not the glazing.

This is one of a group of code change proposals related to IEBC Chapter 12 Historic buildings. While they work together, each proposal can stand on it's own merit. Please see the proposal for the reorganization of this chapter for a clean copy of what this chapter would look like if all the proposals pass.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is an editorial correction to terminology.

EB126-25

IEBC: SECTION 1203, 1203.11

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

SECTION 1203
~~FIRE SAFETY~~ ALTERATIONS

1203.11 Exit signs. Where exit sign or egress path marking location would alter or replace a character defining feature ~~damage the historic character~~ of the building, alternative exit signs are permitted with approval of the *code official*. Alternative signs shall identify the exits and egress path.

Reason: The intent of this proposal is to clarify this requirement. 'Damage' is used for flood and structural provisions, and would be subjective where it came to exit sign placement in a historic building. It may not 'damage' a carving, stained glass transom or painting over a door to put an exit sign in front of it, but it would not allow for that element to be fully appreciated.

The code official can approve an alternative exit sign in a different location - such as higher above the door, or little further down the hallway. Or there may be a exit sign that is part of the building that does not fully meet the exit sign requirements of today.

This is also a companion proposal to the new defined term 'character defining feature'.

This is one of a group of code change proposals related to IEBC Chapter 12 Historic buildings. While they work together, each proposal can stand on it's own merit. Please see the proposal for the reorganization of this chapter for a clean copy of what this chapter would look like if all the proposals pass.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).

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Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is a clarification for exit sign placement. There are no changes in requirements.

EB127-25

IEBC: SECTION 1203, 1203.2, 1203.12, SECTION 1204, 1204.6 (New)

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

SECTION 1203
~~FIRE SAFETY~~ ALTERATIONS

Delete without substitution:

~~**1203.2 General.** Every *historic building* that does not conform to the construction requirements specified in this code for the occupancy or use and that constitutes a distinct fire hazard as defined herein shall be provided with an *approved* automatic sprinkler system as determined appropriate by the *code official*. However, an automatic sprinkler system shall not be used to substitute for, or act as an alternative to, the required number of exits from any *facility*.~~

Revise as follows:

1203.12 Automatic sprinkler systems. Automatic sprinkler systems in historic buildings shall be provided in accordance with Sections 703, 803 and 904. as applicable. Every *historic building* that cannot be made to conform to the construction requirements specified in the *International Building Code* for the occupancy or use and that constitutes a distinct fire hazard shall be deemed to be in compliance ~~if~~ where provided with an *approved* automatic sprinkler system. An automatic sprinkler system shall not be used to substitute for, or act as an alternative to, the required number of exits from any *facility*.

Exception: Where the *code official* approves an alternative life-safety system.

SECTION 1204
CHANGE OF OCCUPANCY

Add new text as follows:

1204.6 Automatic sprinkler systems. Automatic sprinkler systems in historic building undergoing a change of occupancy shall comply with Section 1004.

Exception: Where the *code official* approves an alternative life-safety system.

Reason: The intent of this proposal is to:

1) Remove redundant language in Section 1203.

2) Allow for historic buildings to use the same limits for installing sprinkler systems currently permitted for other existing buildings.

3) Indicate what is appropriate for requiring a historic building to add a sprinkler system if they undergo a change of occupancy.

This is one of a group of code change proposals related to IEBC Chapter 12 Historic buildings. While they work together, each proposal can stand on it's own merit. Please see the proposal for the reorganization of this chapter for a clean copy of what this chapter would look like if all the proposals pass.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).

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International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is a clarification. Since these alternative for sprinklers are already allowed for existing buildings, and alternative means are already permitted for historic buildings, this should be no change of construction requirements.

EB127-25

EB128-25 Part I

IEBC: 1204.5

Proponents: Aaron Phillips, representing Asphalt Roofing Manufacturers Association (aphillips@asphaltroofing.org)

THIS IS A 2 PART CODE CHANGE. PART I WILL BE HEARD BY THE EXISTING BUILDING CODE COMMITTEE. PART II WILL BE HEARD BY THE IRC BUILDING CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THESE COMMITTEES.

2024 International Existing Building Code

Revise as follows:

1204.5 Roof covering. Regardless of occupancy or use group, roof-covering materials classified as not less than Class C, where tested in accordance with ASTM E108 or UL 790, shall be permitted where a fire-retardant roof covering is required.

EB128-25 Part II

IRC: R302.2.4

Proponents: Aaron Phillips, representing Asphalt Roofing Manufacturers Association (aphillips@asphaltroofing.org)

2024 International Residential Code

Revise as follows:

R302.2.4 Parapets for townhouses. Parapets constructed in accordance with Section R302.2.5 shall be constructed for *townhouses* as an extension of exterior walls or common walls separating *townhouse units* in accordance with the following:

1. Where roof surfaces adjacent to the wall or walls are at the same elevation, the parapet shall extend not less than 30 inches (762 mm) above the roof decks.
2. Where roof decks adjacent to the wall or walls are at different elevations and the higher *roof deck* is not more than 30 inches (762 mm) above the lower *roof deck* , the parapet shall extend not less than 30 inches (762 mm) above the lower roof deck.

   Exception: A parapet is not required in the preceding two cases where the *roof covering* complies with a minimum Class C classification ~~rating~~ as tested in accordance with ASTM E108 or UL 790 and the roof deck or sheathing is of *noncombustible materials* or *fire-retardant-treated wood* for a distance of 4 feet (1219 mm) on each side of the wall or walls, or one layer of $^{5}/_{8}$-inch (15.9 mm) *Type X gypsum board* is installed directly beneath the roof decking deck or sheathing, supported by not less than nominal 2-inch (51 mm) ledgers attached to the sides of the roof framing members, for a distance of not less than 4 feet (1219 mm) on each side of the wall or walls and any openings or penetrations in the roof deck are not within 4 feet (1219 mm) of the common walls. *Fire-retardant-treated wood* shall meet the requirements of Sections R302.15 and R803.2.1.2.
3. A parapet is not required where roof surfaces adjacent to the wall or walls are at different elevations and the higher *roof deck* is more than 30 inches (762 mm) above the lower *roof deck* . The common wall construction from the lower *roof deck* to the underside of the higher *roof deck* shall have not less than a 1-hour fire-resistance rating. The wall shall be rated for exposure from both sides. Openings shall not be permitted in the wall.

Reason: This proposal advances work to improve and clarify terminology associated with roofing fire tests that started during the previous code development cycle and has continued during the Group A portion of the 2027 I-code cycle. Proposal WUIC33-24 (on the PCH consent agenda) addresses the issue described below for the Group A code sections. This proposal addresses the same issue for the relevant Group B sections.

ASTM E108 and UL 790 tests are performed on roof assemblies to establish a classification (Class A, B, or C) based on exposure to simulated fire sources originating outside the building. The outcome of the tests is a classification of the roof assembly. In contrast, ASTM E119 or UL 263 tests evaluate the duration for which building elements contain a fire, retain their structural integrity, or exhibit both properties during a predetermined test exposure. The result of these tests is expressed as a fire resistance rating. This proposal adjusts language in the IRC and IEBC to clarify the distinction between these important fire tests. Specifically, it corrects the single case in the IRC where E108 or UL 790 test results are characterized as providing a "rating" by changing "rating" to "classification." It addresses an instance in the IEBC where neither "rating" nor "classification" is used, adding "classified" as the appropriate term for the context.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal makes clarifying improvements to existing code language. There will be no effect on cost of construction.

EB129-25

IEBC: 1204.14

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

SECTION 1204
CHANGE OF OCCUPANCY

Revise as follows:

1204.14 Natural light. Where ~~it is determined by the *code official* that~~ compliance with the natural light requirements of Section 1010.1 will lead to loss of ~~historic character or historic materials in the building~~ character defining features, the existing level of natural lighting shall be considered to be acceptable.

Reason: The intent of this proposal is a clarification/clean up of the requirements. The current allowance recognizes that enlarging windows or removing walls to increase natural light would change elements in a historic building.

The code official does not decide the detriment to the historic building - this is in the report (1201.2) and the code official approves alternatives.

The second revision is a companion change to the new definition for 'character defining feature'.

This is one of a group of code change proposals related to IEBC Chapter 12 Historic buildings. While they work together, each proposal can stand on it's own merit. Please see the proposal for the reorganization of this chapter for a clean copy of what this chapter would look like if all the proposals pass.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).

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Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is an editorial clarification. There are no change to construction requirements.

EB130-25

IEBC: 1206.1 (New), 1206.1, 1206.3 (New)

Proponents: Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

2024 International Existing Building Code

SECTION 1206
RELOCATED BUILDINGS

Add new text as follows:

1206.1 General. Historic buildings that are being relocated shall comply with Section 1206. *Historic buildings* being relocated shall otherwise be considered a *historic building* for the purposes of this code.

Revise as follows:

1206.2 ~~1206.1~~ Foundations ~~Relocated buildings.~~ Foundations of relocated *historic buildings* and structures shall comply with the *International Building Code* or the *International Residential Code*, *as* applicable. ~~Relocated *historic buildings* shall otherwise be considered a *historic building* for the purposes of this code. Relocated *historic buildings* and structures shall be sited so that exterior wall and opening requirements comply with the *International Building Code* or with the compliance alternatives of this code.~~

Add new text as follows:

1206.3 Exterior walls. *Historic buildings* that are relocated shall be sited so that exterior wall and opening requirements comply with the *International Building Code*, the *International Residential Code*, or this code, as applicable.

Reason: The existing section 1206 has a charging paragraph and has been separated into topics instead of lumped together. The general statement has been moved up into 1206.1. Foundation and exterior wall requirements are divided into 1206.2 and 1206.3.

The technical change here is that the option of complying with the IRC has been added for historic buildings that are single family homes.

This is one of a group of code change proposals related to IEBC Chapter 12 Historic buildings. While they work together, each proposal can stand on it's own merit. Please see the proposal for the reorganization of this chapter for a clean copy of what this chapter would look like if all the proposals pass.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is primarily a reorganization of the requirements in this section. Allowing for use of the buildings within the scope of the IRC allow for buildings to use the same code throughout, so this is not adding to construction requirements.

EB131-25

IEBC: [BS] 1402.7

Proponents: Andrew Bevis, Chair, representing Plumbing, Mechanical and Fuel Gas Code Action Committee (pmgcac@iccsafe.org); Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

Revise as follows:

[BS] 1402.7 Required inspection and repairs. The *code official* shall be authorized to inspect, or to require *approved* professionals to inspect at the expense of the owner, the ~~various~~ required systems and equipment, and structural system components and connections ~~parts~~ of a relocated building to verify that these systems~~structural components and connections~~ have not sustained ~~structural~~ damage and are functional. Any *repairs* required by the *code official* as a result of such inspection shall be made prior to the final approval.

Reason: When a building is relocated, there would also be concerns that the plumbing, mechanical, fuel gas, and electrical systems are also checked for any damage caused by the movement. There should be a commissioning of all these systems when the building is relocated. Not only is damage a concern but also the functionality of these systems, including any and all safety features of equipment or systems.

The PMCCAC recommends that the Code Correlation Committee change the scoping of this section to [BG] because these systems cross over into different areas, not just structural.

PMGCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held numerous virtual meetings open to any interested party. Related documents and reports are posted on the PMGCAC website at PMGCAC webpage.

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This section is only a requirement if the code official determines there is a need to do additional inspections.

EB132-25

IEBC: 1204.6.1 (New)

Proponents: Sean Denniston, Heritage Green Consulting, representing Association for Preservation Technology

2024 International Existing Building Code

Add new text as follows:

1204.6.1 Single Exit Buildings. Historic buildings undergoing a change of use to an R-2 occupancy of up to 5 stories in height and less than 3000 sf per floor of Type IV Construction, or better, are permitted to have a single exit stair provided the following requirements are met:

1. Every dwelling unit or tenant space has at least one emergency escape and rescue opening complying with Section 1031 of the International Building Code facing a street, public way, or lawful yard with open, unobstructed, and direct access to the street. Such yard or direct access shall be a minimum width equal to 25 percent of the vertical distance from the windowsill of the highest operable window, facing such yard or direct access, to the grade of such yard or direct access directly below such window, but not less than 36 inches wide.
2. The building contains not more than four tenants or dwelling units per story.
3. The maximum exit access travel distance is limited to 75'.
4. The stairway is enclosed in 2-hour fire-rated walls and all doors leading into the stairway have at least a 1 1/2-hour fire rating.

Reason: Requirements for a second exit can often create an obstacle to the continued use and re-use of small historic buildings. Property line restrictions and limited footprints often make the addition of a second stair technically infeasible or cost prohibitive. However, the number of egress paths is not the factor for building egress safety. For example, due to their smaller size, a single exit can often provide shorter exit travel times in smaller buildings than can be found in larger buildings with multiple exit paths.

This proposal allows for the use of a single exit in certain circumstances. This allowance is contingent on the building also meeting certain other requirements to ensure an overall level of safety. First, it is limited only to R-2 occupancies and not other occupancies with different fire safety or hazard considerations. It also requires that each dwelling unit have secondary access for rescue to ensure that the single exit does not become a single point of failure for rescue. It includes limits on the number of dwelling units per floor to ensure that the exit path does not get overwhelmed. It then has limitations on the travel distance for the exit path to ensure the exception is only used in small buildings that can be evacuated quickly. Finally, it requires a 2-hour fire rating in the exit path. Unlike previous single-exit proposals that have failed in the past, this proposal is focused more on exit distance than building height and dials up the durability of the egress path.

Expansion of allowances for single-stair buildings has become an increasingly common solution in jurisdictions - notably Seattle and New York City - often focused on providing more affordable housing (https://www.centerforbuilding.org/singlestair-tracker). In this proposal, it is also being utilized to specifically encourage the re-use of smaller historic buildings.

Permitting the historic building with a single exit to be improved based on compliance with other requirements of the IEBC and the restrictions included in the proposal will promote reuse of these structures, with the added benefit of reducing the risks associated with vacant and under-utilized structures. The proposal is a targeted expansion of permission in other I-Codes allowing for single exit buildings. Rehabilitation and full occupancy of vacant and underutilized buildings is beneficial to the community, can provide needed housing, and will increase public safety by eliminating the risks associated with vacant or unimproved buildings. Encouraging the reuse of these smaller, single exit buildings aligns with state and federal housing and historic preservation policy that recognizes the importance of protection of the nation's historic and cultural resources, including through the use of state and federal historic tax credits, as administered by the National Park Service, that have been responsible for the rehabilitation of thousands of historic buildings since 1976.

Bibliography:

1. *One stair, two perspectives: Single Exit Stair Symposium.* NFPA (2024).

2. *Single-Stair Tracker — center for building in North America*. (n.d.). Center for Building in North America. https://www.centerforbuilding.org/singlestair-tracker

Cost Impact: Decrease

Estimated Immediate Cost Impact:

This proposal will generally decrease the cost of compliance since it will generally reduce the scope of code compliance. However, the magnitude of the savings is highly dependent on the specifics of the project, including the building's size, location, and the complexity of the design:

1. Building Height: While this proposal is limited to shorter buildings, it does apply to buildings of different heights. The height of the stair is one of the most significant drivers of cost.
2. Construction Materials: The type of materials (wood, steel, concrete, etc.) also has a significant impact on cost. A metal or concrete stairwell will likely be more expensive than a wooden one, and will be required by the fire code in certain circumstances.
3. Labor Costs: Construction labor rates can vary significantly on the local market, as do design professional (architect or engineer) costs. In high-cost cities, labor might be 50% to 100% higher than in lower-cost areas.
4. Permitting and Design Fees: Likewise, permits can vary significantly from jurisdiction to jurisdiction.

With these considerations in mind, estimated costs could fall into the following:

- Basic/Low-end Construction: For a straightforward project in an average location, the cost of adding a second stairwell might range from $15,000 to $30,000.
- More Complex Designs: For a larger, multi-story building or a stairwell requiring more complex structural work (e.g., reinforced concrete, steel framing, or special finishes), the cost could rise to $40,000 to $60,000 or more.

Estimated Immediate Cost Impact Justification (methodology and variables):

Estimation of costs were drawn from average costs of construction.

EB132-25

EB133-25

IEBC: [BS] A104.1, [BS] A108.3, [BS] A111.6.4, [BS] A112.3, [BS] A112.4, [BS] A112.4.1, [BS] A112.4.2, A112.3.1 (New), A112.3.2 (New), A112.3.2.1 (New), A112.3.2.2 (New), A112.3.3 (New), A112.3.4 (New), A112.3.5 (New), A112.3.6 (New), [BS] A113.1, [BS] A113.1.1, [BS] A113.1.2, [BS] A113.1.3, [BS] A113.1.4 (New), [BS] A113.1.6 (New), [BS] A113.1.6.1 (New)

Proponents: Peter Somers, Magnusson Klemencic Associates, representing self (psomers@mka.com); Kelly Cobeen, Wiss Janney Elstner Associates, representing Self (kcobeen@wje.com)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

Revise as follows:

[BS] A104.1 Symbols and notations. For the purpose of this chapter, the following notations supplement the applicable symbols and notations in the building code.

a_n = Diameter of core multiplied by its length or the area of the side of a square prism. A = Cross-sectional area of unreinforced masonry pier or wall, square inches (10^{-6} m^2). A_b = Total area of the bed joints above and below the test specimen for each in-place shear test, square inches (10^{-6} m^2). A_n = Area of net mortared or grouted section of a wall or wall pier. D = In-plane width dimension of pier, inches (10^{-3} m), or depth of diaphragm, feet (m).DCR = Demand-capacity ratio specified in Section A111.4.2. $\underline{E_m}$ = Elastic modulus of masonry f'_m = Lower bound masonry compressive strength.f_{sp} = Splitting-tensile strength of masonry. F_{wx} = Force applied to a wall at level x, pounds (N). H = Least clear height of opening on either side of a pier, inches (10^{-3} m). h/t = Height-to-thickness ratio of URM wall. Height, h, is measured between wall anchorage levels and/or slab-on-grade. L = Span of diaphragm between shear walls, or span between shear wall and open front, feet (m). L_c = Length of crosswall, feet (m). L_i = Effective diaphragm span for an open-front building specified in Section A111.8, feet (m). P = Applied force as determined by standard test method of ASTM C496 or ASTM E519, pounds (N). P_D = Superimposed dead load at the location under consideration, pounds (N). For determination of the rocking shear capacity, dead load at the top of the pier under consideration shall be used. P_{D+L} = Stress resulting from the dead plus actual live load in place at the time of testing, pounds per square inch (kPa). P_{test} = Splitting tensile test load determined by standard test method ASTM C496, pounds (N). P_w = Weight of wall, pounds (N). R = Response modification factor for Ordinary plain masonry shear walls in Bearing Wall System from Table 12.2-1 of ASCE 7, where R = 1.5. S_{DS} = Design spectral acceleration at short period, in g units. S_{D1} = Design spectral acceleration at 1-second period, in g units. v_a = The shear strength of any URM pier, v_mA/1.5 pounds (N). v_c = Unit shear strength for a crosswall sheathed with any of the materials given in Table A108.1(1) or Table A108.1(2), pounds per foot (N/m). v_{mL} = Shear strength of unreinforced masonry, pounds per square inch (kPa). V_{aa} = The shear strength of any URM pier or wall, pounds (N). V_{ca} = Total shear capacity of crosswalls in the direction of analysis immediately above the diaphragm level being investigated, v_cL_c, pounds (N). V_{cb} = Total shear capacity of crosswalls in the direction of analysis immediately below the diaphragm level being investigated, v_cL_c, pounds (N). V_p = Shear force assigned to a pier on the basis of its relative shear rigidity, pounds (N). V_r = Pier rocking shear capacity of any URM wall or wall pier, pounds (N). v_{test} = Load at incipient cracking for each in-place shear test performed in accordance with Section A106.2.3.6, pounds (N). v_{tl} = Lower bound mortar shear strength, pounds per square inch (kPa). v_{to} = Mortar shear test values as specified in Section A106.2.3.6, pounds per square inch (kPa). v_u = Unit shear capacity value for a diaphragm sheathed with any of the materials given in Table A108.1(1) or A108.1(2), pounds per foot (N/m). V_{wx} = Total shear force resisted by a shear wall at the level under consideration, pounds (N). W = Total seismic dead load as defined in the building code, pounds (N). W_d = Total dead load tributary to a diaphragm level, pounds (N). W_w = Total dead load of a URM wall above the level under consideration or above an open-front building, pounds (N). W_{wx} = Dead load of a URM wall assigned to level x halfway above and below the level under consideration, pounds (N). Σv_uD = Sum of diaphragm shear capacities of both ends of the diaphragm, pounds (N). $\Sigma\Sigma v_uD$ = For diaphragms coupled with crosswalls, v_uD includes the sum of shear capacities of both ends of diaphragms coupled at and above the level under consideration, pounds (N). ΣW_d = Total dead load of all the diaphragms at and above the level under consideration, pounds (N).

[BS] A108.3 Masonry compression. Where any increase in wall dead plus live load compression stress occurs, the maximum compression stress in unreinforced masonry, Q_G/A_n, shall not exceed 300 pounds per square inch (2070 kPa).

Delete without substitution:

~~**[BS] A111.6.4 New seismic force-resisting elements.** New seismic force-resisting elements such as moment frames, braced frames or shear walls shall be designed as required by the building code, except that the seismic forces shall be as specified in Section A111.6.1, and the story drift ratio shall be limited to 0.015, except as further limited by Section A112.4.2 for moment frames.~~

~~**[BS] A112.3 Plywood-sheathed shear walls.** Plywood-sheathed shear walls may be used to resist lateral forces for URM buildings with flexible diaphragms analyzed according to provisions of Section A111. Plywood-sheathed shear walls shall not be used to share lateral forces with other materials along the same line of resistance.~~

~~**[BS] A112.4 Combinations of vertical elements.**~~

~~**[BS] A112.4.1 Seismic force distribution.** Seismic forces shall be distributed among the vertical-resisting elements in proportion to their relative rigidities, except that moment-resisting frames shall comply with Section A112.4.2.~~

~~**[BS] A112.4.2 Moment-resisting frames.** Moment resisting frames shall not be used with an unreinforced masonry wall in a single line of resistance unless the wall has piers that have adequate shear capacity to sustain rocking in accordance with Section A112.2.2. The frames shall be designed in accordance with the building code to resist 100 percent of the seismic forces tributary to that line of resistance, as determined from Section A111.2. The story drift ratio shall be limited to 0.0075.~~

Add new text as follows:

A112.3.1 General. New vertical elements shall be permitted to be added to resist seismic forces in accordance with this section.

A112.3.2 Combinations of vertical elements. Combinations of vertical elements shall comply with sections A112.3.2.1 and A112.3.2.2.

A112.3.2.1 Lateral force distribution. For vertical elements in the same line of resistance, lateral forces shall be distributed among the vertical elements in proportion to their relative rigidities. The masonry assemblage of units, mortar, and grout shall be considered to be a homogeneous medium for stiffness computations with an elastic modulus in compression, E_m, as specified in Section A108.4. The shear modulus, G_m, shall be permitted to be equal to $0.4E_m$. The stiffness of a URM wall or wall pier resisting seismic forces parallel to its plane shall be considered to be linear and proportional with the geometrical properties of the uncracked section, excluding veneer wythes. For vertical elements not in the same line, lateral forces shall be permitted to be distributed in accordance with the tributary area method. The existing masonry shall be evaluated and shall be adequate to resist the forces determined in accordance with Section A112.2 and distributed in proportion to relative rigidity, regardless of the design force used for new vertical elements.

Exception: The existing masonry is not required to have adequate capacity to resist the distributed forces if all the following conditions are met:

1. The new vertical elements are designed for 100% of the required forces on the wall line;
2. Truss, post, or beam supports per Section A113.9 are added at rafters, girders, and joists at that wall line; and
3. Vertical bracing per Section A113.5 is added at that wall line.In addition, moment-resisting frames shall comply with Section A112.3.2.2.

A112.3.2.2 Moment-resisting frames. Moment-resisting frames shall not be used in combination with an unreinforced masonry wall in a single line of resistance unless the wall has piers that have adequate shear capacity to sustain rocking in accordance with Section A112.2. The frames shall be designed to carry 100 percent of the forces tributary to that line of resistance.

A112.3.3 Wood structural panels. Wood structural panel shear walls shall be permitted to be used to resist lateral forces for URM buildings with flexible diaphragms analyzed according to the provisions of Section A111. Wood structural panels shall not be used to share lateral forces with other materials along the same line of resistance.

A112.3.4 Forces on new vertical elements. Forces on new vertical elements Story shear per Section A111.6 shall be used to determine forces on new and existing vertical lateral-force-resisting elements. The additional weight of new elements shall be included in the force determination.

A112.3.5 Design of new vertical elements. New vertical elements shall satisfy the requirements of Section A111. Footings shall be provided for new vertical elements to transfer loads into the supporting soil. Existing footings supporting new vertical elements shall be evaluated per Section A108.6. Bearing pressure capacities used for new footings similar to existing footings shall be permitted to use the provisions of Section A108.6. For new footings that are not similar to existing footings, bearing pressure capacities shall be determined by a geotechnical investigation

A112.3.6 Drift limits. The story drift ratio for all new vertical elements shall be limited to 0.0075.

[BS] A113.1 Wall anchorage.

[BS] A113.1.1 Anchor locations. Unreinforced masonry walls shall be anchored at the roof and floor levels as required in Section A110.2. Ceilings of plaster or similar materials, where not attached directly to roof or floor framing and where abutting masonry walls, shall either be anchored to the walls at a maximum spacing of 6 feet (1829 mm) or be removed.

Revise as follows:

[BS] A113.1.2 Anchor requirements. Anchors shall consist of bolts installed through the wall as specified in Table A108.1(2), or an *approved* equivalent at a maximum anchor spacing of 6 feet (1829 mm). Wall anchors shall be secured to the framing members parallel or perpendicular to the wall to develop the required forces. The connection between the walls and the diaphragm shall not induce cross-grain bending or tension in the wood ledgers.

[BS] A113.1.3 Minimum wall anchorage. Anchorage of masonry walls to each floor or roof shall resist a minimum force determined as $0.9S_{DS}$ times the tributary weight or 200 pounds per linear foot (2920 N/m), whichever is greater, acting normal to the wall at the level of the floor or roof. Existing wall anchors, if used, must be tested and meet the requirements of Section A107.5.1 or be upgraded.

Add new text as follows:

[BS] A113.1.5 Anchor locations. Anchors shall be located a minimum distance of 12 inches (305 mm) from wall openings or from the top of parapets.

Exception: If a reinforced beam or column is provided at the top of the wall or adjacent to the wall opening, the minimum distance is permitted to be 6 inches (152 mm).

[BS] A113.1.6 Transfer of anchorage forces into diaphragm. A113.1.6 The wall anchorage force in this section shall be fully developed into the diaphragm when SD1 exceeds 0.2. If subdiaphragms are used, each subdiaphragm shall be capable of transmitting the shear forces caused by wall anchorage to a continuous diaphragm crosstie. Subdiaphragms shall have length-to-depth ratios not exceeding 3:1.Alternatively, the wood diaphragm systems listed in Section A113.1.6.1 shall be permitted to develop the wall anchorage as follows, but subdiaphragm analysis, crossties, and chords are not required:

1. For joists parallel to the masonry walls, the anchorage shall be developed a minimum of 8 feet (2400 mm) into the diaphragm.
2. For joists perpendicular to the masonry walls, anchors attached to joists 8 feet (2400 mm) or longer shall be deemed sufficient development. If joists are shorter than 8 feet (2400 mm) or if attachment is between joists, the wall anchorage shall be developed into the diaphragm similar to conditions where joists are parallel to the masonry walls as outlined in Item 1.

[BS] A113.1.6.1 Wood diaphragms allowed in alternate method. Wood diaphragms consisting of the following shall be permitted to use the alternate anchorage transfer without subdiaphragm analysis, crossties, and chords:

1. Diagonal sheathing overlaid with straight sheathing, finished wood flooring, or wood structural panel sheathing;
2. Double straight sheathing (with board edges offset or perpendicular);
3. Straight sheathing overlaid with wood structural panel sheathing (with panel edges offset);
4. Wood structural panel sheathing; or
5. Nail-laminated timber.

Reason: This proposal aligns several sections of Appendix A1 with updates to the similar procedure contained in ASCE 41-23 Section 16.2 (which is also referenced as an acceptable method for evaluating URM buildings for reduced seismic criteria under IEBC Section 304.4.2). The updates to ASCE 41-23 were based on the ATC-140 project and documented in FEMA P-2208 (NEHRP Recommended Revisions to ASCE/SEI 41-17, Seismic Evaluation and Retrofit of Existing Buildings, August 2023). It is important for the procedures in Appendix A1 to be as consistent as possible with those in the the latest national consensus standard, ASCE 41, which represents the state of the practice for URM retrofits. This is also consistent with the approach taken over several code cycles to improve consistency between the two procedures.

This proposal does the following:

Reorganizes and updates several sections related to how new lateral elements are treated in URM retrofits to be more clear and logical, matching the format in ASCE 41-23 Section 16.2.

Provides additional technical criteria for the design of new lateral systems for URM retrofits. These updates are consistent with the updates in the ASCE 41-23 consensus standard, based on the technical reasoning in FEMA P-2208.

Provides additional requirements for the evaluation and design of wall anchorage consistent with the updates in ASCE 41-23. The intent of these updates are to improve the effectiveness of added wall anchorage by ensuring a complete load path from anchor to floor/roof framing to floor/roof diaphragm.

Cost Impact: Increase

Estimated Immediate Cost Impact:

These revisions may or may not have an impact on construction cost, dependent on several factors that can be specific to each individual URM building and retrofit approach. The revisions to Section A112.3 will not have a cost impact since this is essentially a reorganization and clarification of current code requirements for adding new lateral elements into existing URM buildings.
The revisions in Section A113.1 could lead to minor increase in the construction costs for wall anchorage retrofits depending on which method is used for IEBC-triggered seismic evaluation and retrofit of existing URM buildings (note that chapter A1 is just one of several possible retrofit procedures listed in IEBC Section 304.3.2 for triggered seismic retrofits that allow the use of reduced seismic criteria). Specifically, this proposal could result in an slight increase in the number of retrofit anchors in a building or require increased length of development of the wall anchorage into the diaphragm system. Given the very wide range of seismic retrofit scope and costs for URM buildings, reflecting high variability in existing structural systems, varying current condition of the structure at the time of retrofit, and range of impacts to existing architectural finishes required to access retrofit areas, a direct cost impact or percentage increase of construction cost is impossible to estimate. At most this will have a minor increase in the structural cost of the wall anchorage retrofit, which itself is generally a small percentage of the total retrofit cost for most URM retrofits using Appendix A1.

Estimated Immediate Cost Impact Justification (methodology and variables):

Proposal makes Chapter A1 consistent with the similar procedure in the national consensus standard, ASCE 41-23, which represents to standard of practice for the retrofit of URMs. Past and recent earthquakes have demonstrated the vulnerability of retrofitted URM buildings if the added wall anchorage has not been effectively connected to the floor and roof diaphragms. Again, there is no way to estimate specific project cost impacts given the large uncertainty and huge range of URM retrofit costs.

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IEBC: [BS] A302.1, [BS] A304.3.1, [BS] TABLE A304.3.1, [BS] FIGURE A304.3.1(1), [BS] FIGURE A304.3.1(2), [BS] TABLE A304.3.2

Proponents: Randy Shackelford, representing Simpson Strong-Tie Co. (rshackelford@strongtie.com)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

2024 International Existing Building Code

Revise as follows:

[BS] A302.1 Definitions. For the purpose of this chapter, in addition to the applicable definitions in the building code, certain additional terms are defined as follows:

[BS] ADHESIVE ANCHOR. An assembly consisting of a threaded rod, washer, nut, and chemical adhesive *approved* by the *code official* for installation in existing concrete or masonry.

[BS] CRIPPLE WALL. A wood-frame stud wall extending from the top of the foundation to the underside of the *lowest floor* framing.

[BS] EXPANSION ANCHOR. An *approved* post-installed anchor that is inserted in a pre-drilled hole in existing concrete or masonry and set by an expansion against the side of the drilled hole through movement of an internal plug in the sleeve or through movement of the sleeve over an expansion element (plug).

[BS] PERIMETER FOUNDATION. A foundation system that is located under the exterior walls of a building.

SCREW ANCHOR. An approved post-installed anchor that is a inserted into a predrilled hole in existing concrete or masonry, and is a threaded mechanical fastener that transfers loads to or from the concrete or masonry by direct bearing or mechanical interlock of the screw threads with the grooves that the anchor cuts into the concrete or masonry during installation.

[BS] SNUGTIGHT. As tight as an individual can torque a nut on a bolt by hand, using a wrench with a 10-inch-long (254 mm) handle, and the point at which the full surface of the plate washer is contacting the wood member and slightly indenting the wood surface.

[BS] WOOD STRUCTURAL PANEL. A panel manufactured from veneers, wood strands or wafers or a combination of veneer and wood strands or wafers bonded together with waterproof synthetic resins or other suitable bonding systems. Examples of wood structural panels are:

Composite panels. A wood structural panel that is comprised of wood veneer and reconstituted wood-based material and bonded together with waterproof adhesive.

Oriented strand board (OSB). A mat-formed wood structural panel comprised of thin rectangular wood strands arranged in cross-aligned layers with surface layers normally arranged in the long panel direction and bonded with waterproof adhesive.

Plywood. A wood structural panel comprised of plies of wood veneer arranged in cross-aligned layers. The plies are bonded with waterproof adhesive that cures on application of heat and pressure.

[BS] A304.3.1 Existing perimeter foundations. Where the building has an existing continuous perimeter foundation, all perimeter wall sill plates shall be anchored to the foundation with adhesive anchors, screw anchors, or expansion anchors in accordance with Table A304.3.1.

Anchors shall be installed in accordance with Figure A304.3.1(1), with the plate washer installed between the nut and the sill plate. The nut shall be tightened to a snugtight condition after curing is complete for adhesive anchors and after expansion wedge engagement for expansion anchors. Screw anchors shall be installed using an impact wrench to tighten the anchor until the head contacts the washer or fixture. Anchors shall be installed in accordance with manufacturer's recommendations. Expansion anchors shall not be used where the installation causes surface cracking of the foundation wall at the locations of the anchor.

Where existing conditions prevent anchor installations through the top of the sill plate, this connection shall be made in accordance

with Figure A304.3.1(2), A304.3.1(3) or A304.3.1(4). Alternative anchorage methods having a minimum shear capacity of 900 pounds (4003 N) per connection parallel to the wall shall be permitted. The spacing of these alternative connections shall comply with the maximum spacing requirements of Table A304.3.1 for $^1/_2$-inch (12.7 mm) bolts.

[BS] TABLE A304.3.1 SILL PLATE ANCHORAGE AND CRIPPLE WALL BRACING

NUMBER OF STORIES ABOVE CRIPPLE WALLS	MINIMUM SILL PLATE CONNECTION AND MAXIMUM SPACING[a, b, c]	AMOUNT OF BRACING FOR EACH WALL LINE[d, e, f]	
		A combination of exterior walls finished with Portland cement plaster and roofing using clay tile or concrete tile weighing more than 6 psf (287 N/m^2)	All other conditions
One story	$^1/_2$ inch spaced 6 feet, 0 inch center-to-center with washer plate	Each end and not less than 50 percent of the wall length	Each end and not less than 40 percent of the wall length
Two stories	$^1/_2$ inch spaced 4 feet, 0 inch center-to-center with washer plate; or $^5/_8$ inch spaced 6 feet, 0 inch center-to-center with washer plate	Each end and not less than 70 percent of the wall length	Each end and not less than 50 percent of the wall length
Three stories	$^5/_8$ inch spaced 4 feet, 0 inch center-to-center with washer plate	100 percent of the wall length[g]	Each end and not less than 80 percent of the wall length[g]

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 47.88 N/m^2.

a. Sill plate anchors shall be adhesive anchors, screw anchors, or expansion anchors in accordance with Section A304.3.1.

b. All washer plates shall be 3 inches by 3 inches by 0.229 inch minimum. The hole in the plate washer is permitted to be diagonally slotted with a width of up to $^3/_{16}$ inch larger than the bolt diameter and a slot length not to exceed $1^3/_4$ inches, provided that a standard cut washer is placed between the plate washer and the nut.

c. This table shall also be permitted for the spacing of the alternative connections specified in Section A304.3.1.

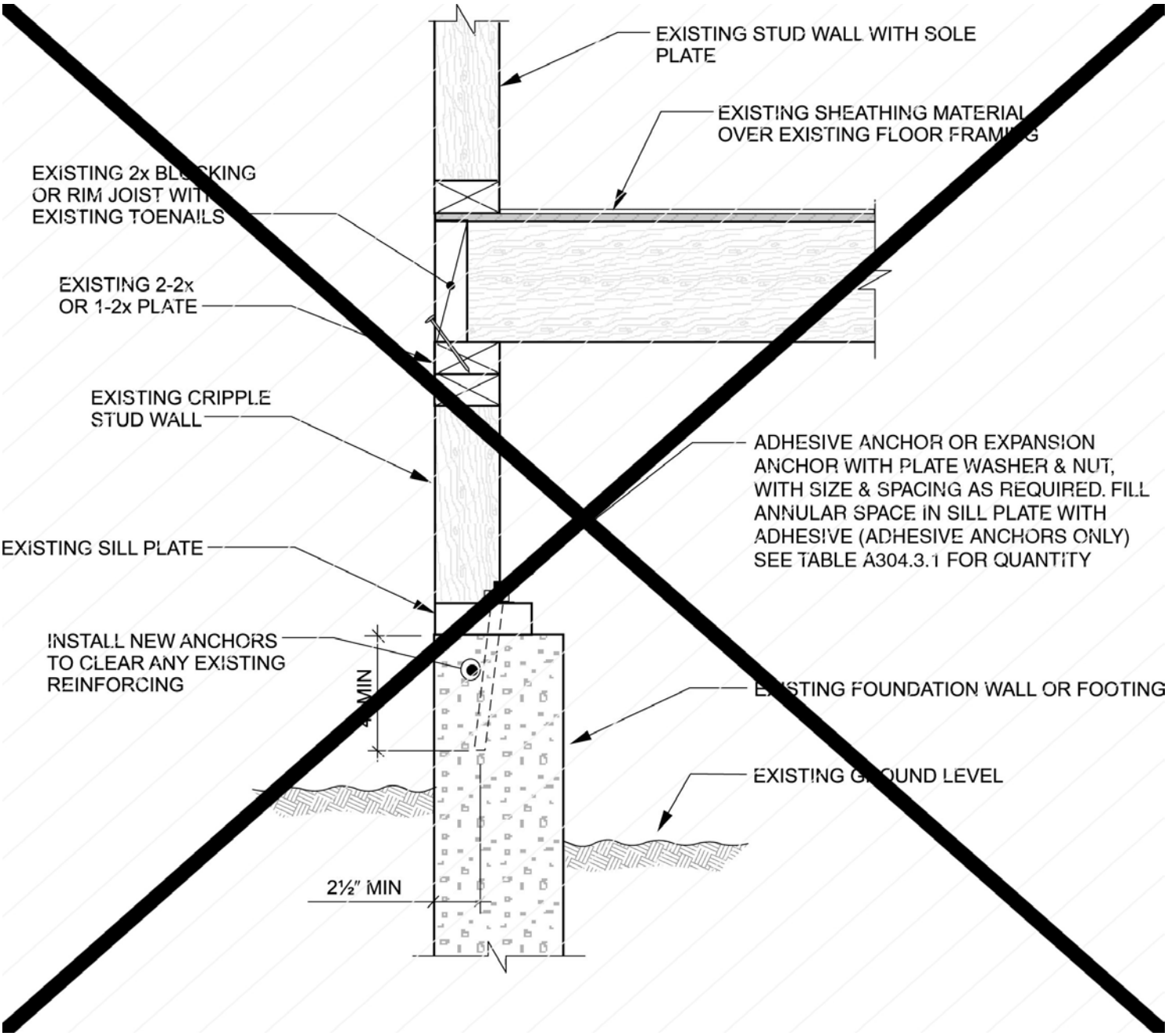
d. See Figure A304.4.2 for braced panel layout.

e. Braced panels at ends of walls shall be located as near to the end as possible.

f. All panels along a wall shall be nearly equal in length and shall be nearly equal in spacing along the length of the wall.

g. The minimum required underfloor ventilation openings are permitted in accordance with Section A304.4.4.

Delete and substitute as follows:



~~For SI: 1 inch = 25.4 mm.~~

~~a. Plate washers shall comply with the following:~~

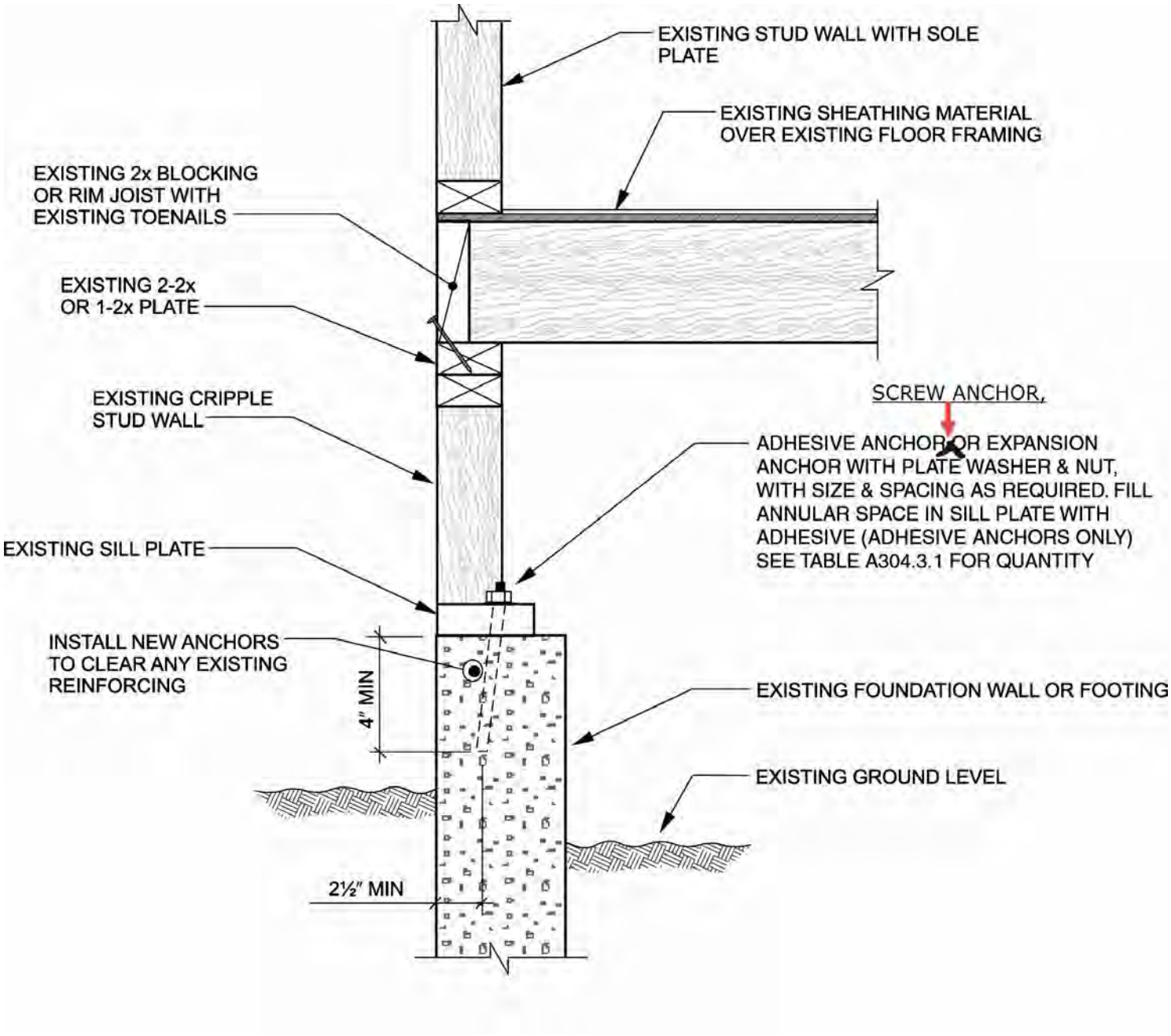
~~1/2 inch anchor or bolt – 3 inches × 3 inches × 0.229 inch minimum.~~

~~5/8 inch anchor or bolt – 3 inches × 3 inches × 0.229 inch minimum.~~

~~A diagonal slot in the plate washer is permitted in accordance with Table A304.3.1, Note b.~~

~~b. See Figure A304.4.1(1) or A304.4.1(2) for cripple wall bracing.~~

~~[BS] FIGURE A304.3.1(1) SILL PLATE BOLTING TO EXISTING FOUNDATION[a, b]~~



For SI: 1 inch = 25.4 mm.

a. Plate washers shall comply with the following:

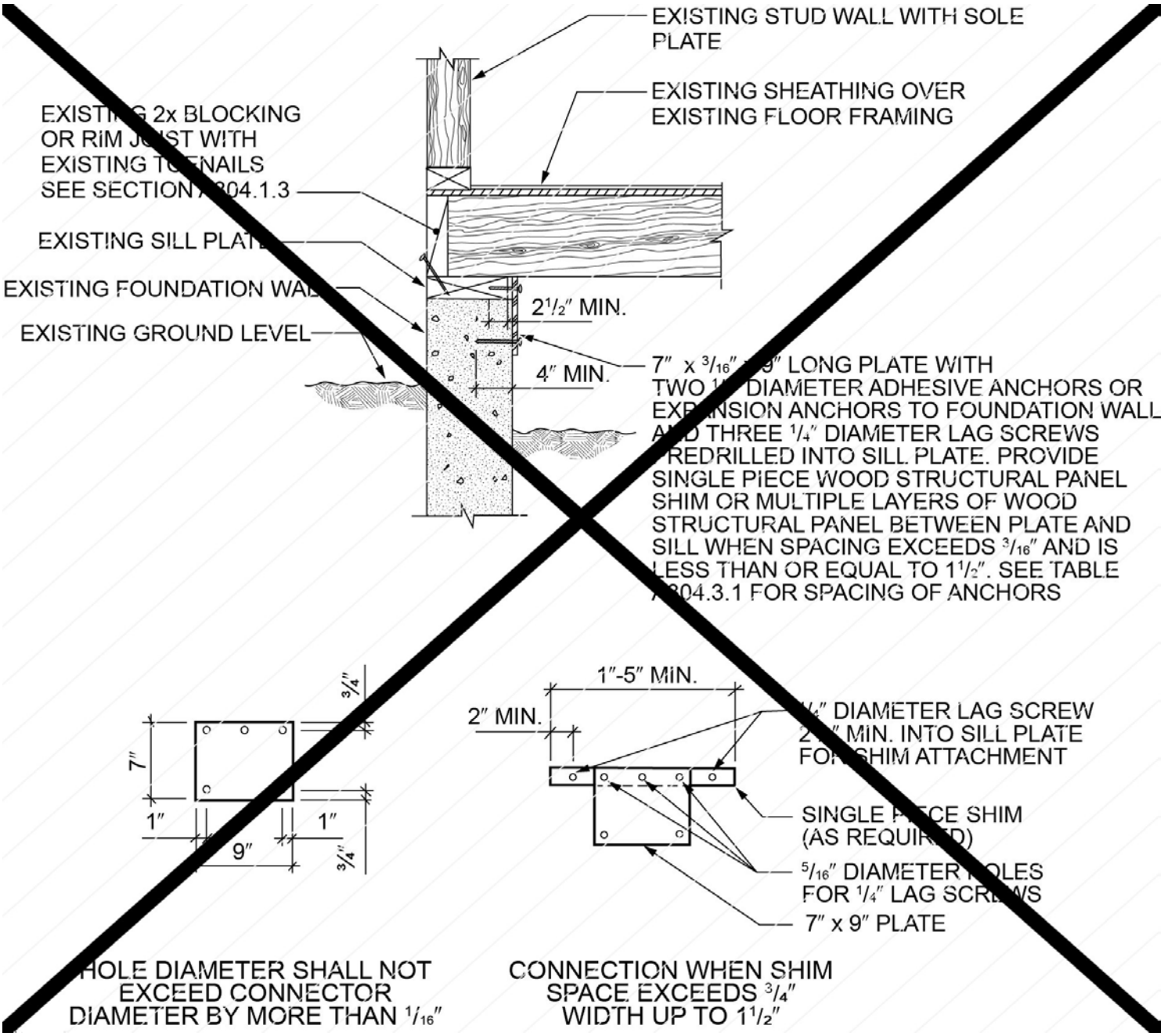
1/2-inch anchor or bolt—3 inches × 3 inches × 0.229 inch minimum.

5/8-inch anchor or bolt—3 inches × 3 inches × 0.229 inch minimum.

A diagonal slot in the plate washer is permitted in accordance with Table A304.3.1, Note b.

b. See Figure A304.4.1(1) or A304.4.1(2) for cripple wall bracing.

[BS] FIGURE A304.3.1(1) SILL PLATE BOLTING TO EXISTING FOUNDATION[a, b]

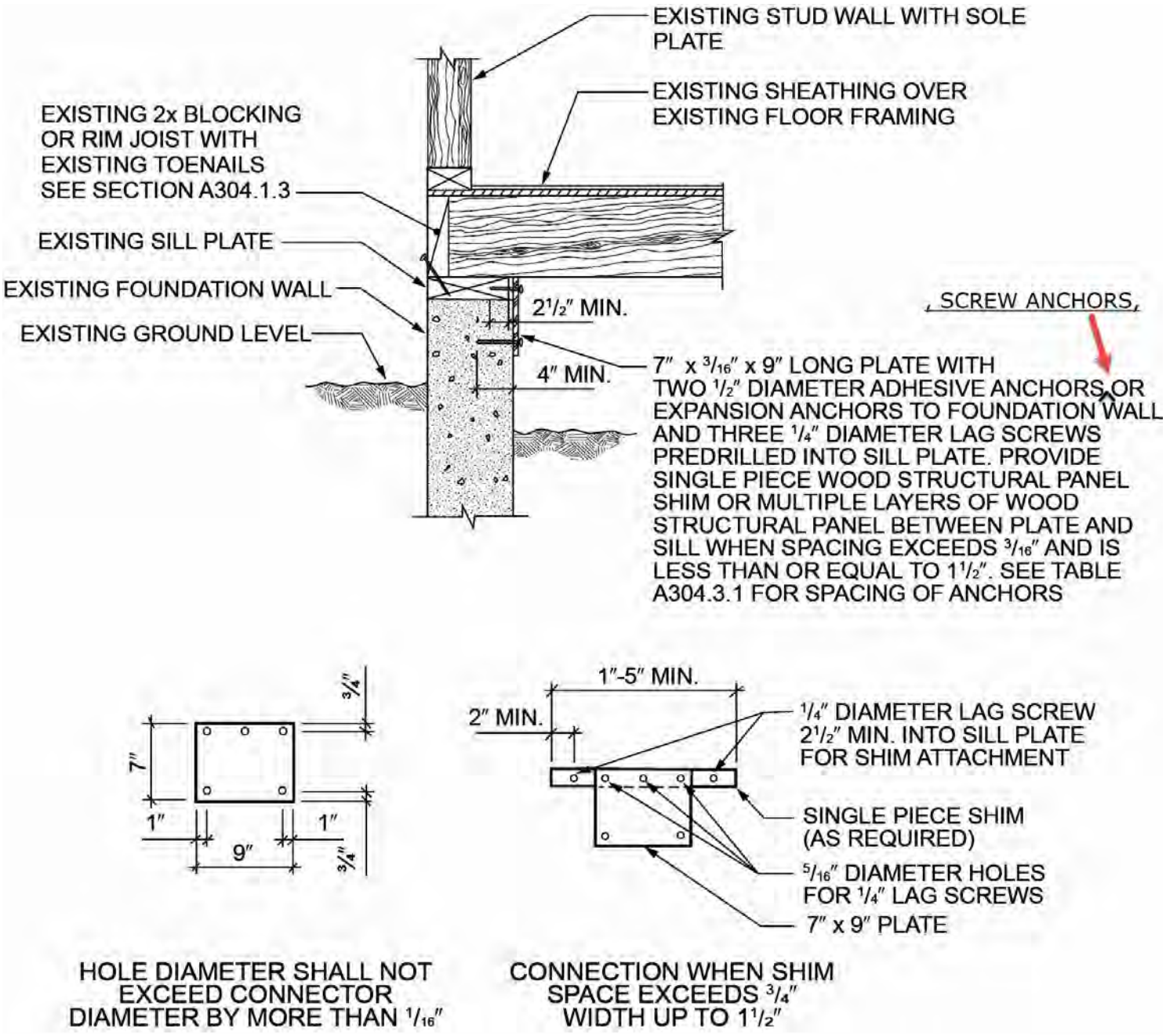


For SI: 1 inch = 25.4 mm.

a. If shim space exceeds 1 1/2 inches, alternative details will be required.

b. Where required, single piece shim shall be naturally durable wood or preservative-treated wood. If preservative-treated wood is used, it shall be isolated from the foundation system with a moisture barrier.

[BS] FIGURE A304.3.1(2) ALTERNATIVE SILL PLATE ANCHORING IN EXISTING FOUNDATION—WITHOUT CRIPPLE WALLS AND FLOOR FRAMING NOT PARALLEL TO FOUNDATIONS[a, b]



For SI: 1 inch = 25.4 mm.

a. If shim space exceeds $1\frac{1}{2}$ inches, alternative details will be required.

b. Where required, single piece shim shall be naturally durable wood or preservative-treated wood. If preservative-treated wood is used, it shall be isolated from the foundation system with a moisture barrier.

[BS] FIGURE A304.3.1(2) ALTERNATIVE SILL PLATE ANCHORING IN EXISTING FOUNDATION—WITHOUT CRIPPLE WALLS AND FLOOR FRAMING NOT PARALLEL TO FOUNDATIONS[a, b]

Revise as follows:

[BS] TABLE A304.3.2 SILL PLATE ANCHORAGE FOR VARIOUS LENGTHS OF SILL PLATE[a, b]

NUMBER OF STORIES	LENGTHS OF SILL PLATE			
	Less than 12 feet to 6 feet		Less than 6 feet to 30 inches	Less than 30 inches[c]
One story	Three connections		Two connections	One connection

NUMBER OF STORIES	LENGTHS OF SILL PLATE		
	Less than 12 feet to 6 feet	Less than 6 feet to 30 inches	Less than 30 inches
Two stories	Four connections for $^{1}/_{2}$-inch anchors or bolts or three connections for $^{5}/_{8}$-inch anchors or bolts	Two connections	One connection
Three stories	Four connections	Two connections	One connection

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

a. Connections shall be either adhesive anchors, screw anchors, or expansion anchors.

b. See Section A304.3.2 for minimum end distances.

c. Connections shall be placed as near to the center of the length of plate as possible.

Reason: The purpose of this code change proposal is to simply add a fairly new type of post-installed mechanical anchor, the screw anchor, as purely another option for use as sill plate shear anchors in a seismic retrofit. In reality, screw anchors will probably perform better than expansion anchors in this application, because they do not put an expansion load on the existing concrete like expansion anchors do. Screw anchors are covered by the IBC and ACI 318 so there is no issue with determining code compliance of the approved screw anchors. A new definition of screw anchor was added, and the definition of expansion anchor was revised to better differentiate it from screw anchors. These definitions are based on definitions in ACI standards.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

There is no intended cost impact for this code change. It is simply adding a new option for the builder and designer to use, it is not deleting allowance for anchors currently permitted by the IEBC.

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IEBC: E107.1.3, E107.3.4

Proponents: Jeff O'Neill, Chair, representing Committee on Healthcare (ahc@iccsafe.org); Jeff Grove, Chair, representing BCAC (bcac@iccsafe.org); Robert Marshall, representing FCAC (fcac@iccsafe.org)

2024 International Existing Building Code

Revise as follows:

E107.1.3 Sleeping areas. Where a space is used for sleeping purposes, the space shall be equipped with smoke alarms in accordance with Sections 907.2.6.2 and 907.2.11 of the *International Fire Code* or be provided with a fire watch in accordance with Section 403.11.1 of the *International Fire Code*. Carbon monoxide alarms shall be installed in accordance with Section 915 of the *International Fire Code* ~~where the structure uses any fossil fuel or wood burning appliances.~~

E107.3.4 Carbon monoxide alarms. Carbon monoxide alarms shall be installed in accordance with Section 915 of the *International Fire Code*~~, where the tiny house or manufactured home uses any fossil fuel or wood-burning appliances~~.

Reason: This is coordination with an IFC change to Section 915, F148-24.

Where a *direct carbon monoxide* source is located in a bedroom or sleeping room, or a bathroom attached to either, carbon monoxide detection shall be installed in the bedroom or sleeping room.

Where carbon monoxide detection is not installed in bedrooms or sleeping rooms, carbon monoxide detection shall be installed outside of each separate sleeping area in close proximity to bedrooms or sleeping rooms for either of the following conditions:

The *dwelling unit* or *sleeping unit* has a communicating opening to an attached, enclosed garage.

A *direct carbon monoxide source* is located in the *dwelling unit* or *sleeping unit* outside of bedrooms or sleeping room.

This proposal is submitted by the ICC Building Code Action Committee (BCAC), the ICC Fire Code Action Committee (FCAC) and the ICC Committee for Healthcare (CHC).

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and 2024 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

FCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and early 2024 the FCAC has held several virtual meetings and one in-person meeting open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the FCAC Website

The Committee on Healthcare (CHC) was established by the ICC Board of Directors in 2011 to pursue opportunities to study and develop effective and efficient provisions for Hospital, Nursing Homes, Assisted Living and Ambulatory Care Facilities. This committee was formed in cooperation with the American Society for Healthcare Engineering (ASHE). In July of 2017, the ICC Board made CHC a standing committee. In 2023 and 2024 the CHC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the CHC website at CHC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is coordination with an IFC change to Section 915, F148-24.