2024 International Existing Building Code Significant Changes Report

2024 Code Section	Title or Subject	Reviewer Comments	Cost Yes/No	Amend Needed Yes/No	TAG Comments/Recommendations
01 Scope and Administration					
No Significant Changes					
02 Definitions					
No Significant Changes					
03 Provisions for all compliance methods					
306.2.1	Prohibited reduction in accessibility	Model code changes in Section 306.2.1 add "additions" to the criteria for work that is prohibited to decrease the accessibility of the building, facility, or element, and therefore may increase design/construction costs.	Increase	No	
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*.					
306.7.15	Adult changing stations	Addition to model code may increase design and construction costs	Increase	No	
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 306.7.12, 306.7.13 or 306.7.14.					
308.1	Carbon monoxide detection	Removes requirement to have carbon monoxide detectors in each sleeping in I2 occupancy buildings, thus cost savings for construction	Decrease	No	
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.				

04 Repairs					
401.4	Demolition and replacement	This WAC amendment requires compliance with building code provisions for new construction for buildings that are "effectively demolished" and repaired. Even building with substantial structural damage as defined in Chapter 2 are allowed to be repaired per Section 405 Structural, therefore this change could have increased cost for construction. Note that "effectively demolished" is not defined in the IEBC, so how does one determine if the building was "effectively demolished" or not? Also, "or where the intended method of repair is demolition and replacement" also is unclear. Many repairs include demolition and replacement, so does any repair where an element is demolished and replacmed need to comply with provisions for new construction? This would negate much of IEBC Section 405 Structural.	Increase	No	

401.4 Demolition and replacement. Where a building or structure is effectively demolished by damage or where the intended method of repair is demolition and replacement, the replaced building, including its replaced foundation, shall comply with requirements for new construction in the *International Building Code*.

EXCEPTION: Existing foundations are permitted to remain and be reused where approved by the code official.

406.1	General	Model code language change causes increase in cost of construction for repair of electrical systems. The 2021 model code explicitly allowed for electrical systems to be repaired in like-kind. New model code language proposed here requires electrical system repairs to comply with NFPA 70 which does not have provisions for repair of existing electrical systems.	Increase	No	

406.1 General. *Repairs* to existing electrical wiring and equipment shall be in accordance with NFPA 70.

05 Prescriptive Complaince Method

502.1.1	Risk category assignment	New model code language added here in Section 502.1.1 Risk category assignment, may require an existing building, to which an addition is being added, to change occupancy and risk category, and to comply with change of occupancy provisions in Section 506. These could result in increased cost of construction.	Increase	No	

502.1.1 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 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*.

503.13	Voluntary lateral force-resisting system alterations	This WAC amendment exempts voluntary lateral force-resisting system alterations from complying from IBC Section 1609 (Wind) and Section 1613 (Seismic), instead of the model code language which exempts compliance from Section 503. The listed requirements 1-4 are the generally the same for both. It appears that the model code allows a voluntary alteration to enjoy more exemptions from requirements than does the WAC amendment. In other words, a voluntary lateral force-resisting system alteration must meet a greater number of requirements under the WAC amendment compared to the model code language, therefore this change could have increased cost for construction.	Increase	No	See Existing Amendments Report. Incorporate New Model Language into WA amendment.

[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 required to meet the requirements of Section 1609 or 1613 of the *International Building Code* ~~subject to the structural require- ments 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] 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.

06 Classification of Work

No Significant Changes

07 Alterations--Level 1

702.5	Replacement window for emergency escape and rescue openings	Language already in 2021 IEBC "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."	No	No	

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.

705.1	General	Align with 2024 IBC new code section 1608.3 Ponding instability and 1611.2 Ponding instability	No	No	

[BS] 705.1 General. Materials and methods of application used for recovering or replacing an existing roof covering shall comply with the requirements of Chapter 15 of the *International Building Code*.

Exceptions:

1. *Roof replacement* or *roof recover* of 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*.
2. Recovering or replacing an existing roof covering shall not be required to meet the requirement for secondary (emergency overflow) drains or scuppers in Section 1502 of the *International Building*

ALTERATIONS—LEVEL 1

Code for roofs that provide for positive roof drainage and meet the requirements of Sections 1608.3 and 1611.2 of the *International Building Code*. For the purposes of this exception, existing secondary drainage or scupper systems required in accordance with this code shall not be removed unless they are replaced by secondary drains or scuppers designed and installed in accordance with Section 1502 of the *International Building Code*.

705.2	Roof replacement	New language added, clarify roof replacement requirements when existing self-adhered underlayment is involved	No	No	

[BS] 705.2 Roof replacement. *Roof replacement* shall include the removal of all existing layers of roof coverings down to the roof deck.

Exceptions:

1. Where the existing roof assembly includes an ice barrier membrane that is adhered to the roof deck and the existing sheathing is not water-soaked or deteriorated to the point that it is not adequate as a base for additional roofing, the existing ice barrier membrane shall be permitted to remain in place and covered with an additional layer of ice barrier membrane in accordance with Section 1507 of the *International Building Code* where permitted by the roof-covering manufacturer and new ice-barrier underlayment manufacturer.
2. Where the existing roof includes a self-adhered underlayment and the existing sheathing is not water-soaked or deteriorated to the point that it is not adequate as a base for additional roofing, the existing self-adhered underlayment shall be permitted to remain in place and covered with an underlayment complying with Tables 1507.1.1(1), 1507.1.1(2) and 1507.1.1(3) of the *International Building Code*.
3. Where the existing roof includes one layer of self-adhered underlayment and the existing layer cannot be removed without damaging the roof deck, a second layer of self-adhered underlayment is permitted to be installed over the existing self-adhered underlayment provided all of the following conditions are met:
   - 3.1 It is permitted by the roof-covering manufacturer and self-adhered underlayment manufacturer.
   - 3.2 The existing sheathing is not water-soaked or deteriorated to the point that it is not adequate as a base for additional roofing.
   - 3.3 The second layer of self-adhered underlayment is installed such that buildup of material at walls, valleys, roof edges, end laps and side laps does not exceed two layers.

08 Alterations--Level 2					
803.2.2	Automatic sprinkler systems	Editorial change, clarification.	No	No	
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. **Exception:** 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*.					
803.4.3	Installation	New language: 803.4.3 Installation. Where a fire alarm system is required to be installed in accordance with Sections 803.4.1 or 803.4.2, the fire alarm system shall be installed in accordance with the provisions of this code, Section 907 of the International Building Code and NFPA 72.	Yes	No	
803.4.3. Where automatic sprinkler protection is provided in accordance with Section 803.2 and is connected to the building fire alarm system, automatic heat detection shall not be required.					
805.3	Existing structural elements resisting lateral loads	New language added in the section	Yes	No	

[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 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/m²) and does not exceed 10 percent of the dead load of the existing roof.

09 Alterations--Level 3					
902.2	Conditions for I-1 occupancies	New section	Yes	No	
902.2 Conditions for I-1 occupancies. Group I-1 occupancies shall be classified as Condition 1 or Condition 2 in accordance with Section 308.2 of the *International Building Code*.					
902.3	Ambulatory care facilities	New section	Yes	No	
902.3 Ambulatory care facilities. Where a Level 3 *work area* 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 incapable of self-preservation at any time.					
904.1.3	Upholstered Furniture or Mattresses	Correlation between IFC Needed	No	Yes	IBC and IFC contain identical language, IEBC needs to be updated to avoid conflict.
904.1.3 Upholstered furniture or mattresses. *Work areas* shall be provided with an automatic sprinkler system in accordance with the *International Building Code* where any of the following conditions exist: 1. A Group F-1 occupancy used for the manufacture of upholstered furniture or mattresses exceeds 2,500 square feet (232 m²). 2. A Group M occupancy used for the display and sale of upholstered furniture or mattresses exceeds 5,000 square feet (464 m²). 3. A Group S-1 occupancy used for the storage of upholstered furniture or mattresses exceeds 2,500 square feet (232 m²).					
904.1.8	Supervision and alarms	New section	Yes	No	

904.1.8 Supervision and alarms. Where an automatic sprinkler system is required by Sections 904.1.1 through 904.1.7, such systems shall be provided with supervision and alarms in accordance with Section 903.4 of the *International Building Code*.

908	EMERGENCY RESPONDER COMMUNICATIONS ENHANCEMENT SYSTEM COVERAGE	New section	Yes	No	

SECTION 908—EMERGENCY RESPONDER COMMUNICATIONS ENHANCEMENT SYSTEM COVERAGE

908.1 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 and 908.1.2.

Exception: Where it is determined by the fire *code official* that the emergency responder communication enhancement system (ERCES) is not needed.

908.1.1 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 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.

10 Change of Occupancy					
1002.3	Change of occupancy in health care	New exception for I-1 occupancy	No	No	

1002.3 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*.

The International Building Code shall apply to Group I-1, Condition 2, for licensure as an assisted living facility under chapter 388-78A WAC or residential treatment facility under chapter 246-337 WAC.

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.

1011.2	Fire protection systems	New section 1011.2.1.1 Nonrequired automatic sprinkler systems. Clarify requirements for non-required automatic sprinkler systems; option to remove with approval of code official.	No	No	

1011.2 Fire protection systems. Fire protection systems shall be provided in accordance with Sections 1011.2.1 and 1011.2.2.

1011.5	Means of egress, general	New exception for I occupancy	No	No	

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

1011.6.1	Height and area for change to a higher-hazard category	New exception	Decrease	No	

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

11 Additions					
1101	GENERAL	New section 1101.3 Risk category assignment and 1101.6 Smoke barriers in Group I-1, Condition 2	No	No	

[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 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*.

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 m³) or less. Enhanced classroom acoustics shall comply with the reverberation time in Section 808 of ICC A117.1.

1102.3	Fire protection systems	Added exception: Nonoccupiable appendages, such as elevator and exit stairway shafts, shall be permitted beyond that permitted by the International Building Code.	Decrease	No	

1102.3 Fire protection systems. Existing fire areas increased by the *addition* shall comply with Chapter 9 of the *International Building Code*.

Exception: Nonoccupiable appendages, such as elevator and exit stairway shafts, shall be permitted beyond that permitted by the *International Building Code*.

1103.2	Lateral force-resisting system	New language added in the section	No	No	

[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 1609 of 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.

12 Historic Buildings

No Significant Changes

13 Performance Complaince Methods

No Significant Changes

14 Relocated or Moved Buildings

No Significant Changes

15 Construction Safeguards

No Significant Changes

16 Referenced Standards

No Significant Changes in I-Codes. Correlation of UPC Standards would be a helpful addition to the WA I-Code amendments.