CITY OF SEATTLE

ORDINANCE _____

COUNCIL BILL _____

..title

AN ORDINANCE relating to the Seattle Existing Building Code; amending Section 22.110.010 of the Seattle Municipal Code; adopting by reference Chapters 2 through 5, 7 through 11, 14 through 16, A1, A3, A4, and A6 of the 2015 International Existing Building Code; amending certain of those chapters, and adopting a new Chapter 1 related to administration, permitting, and enforcement; and repealing Sections 2-17 of Ordinance 124283.

..body

BE IT ORDAINED BY THE CITY OF SEATTLE AS FOLLOWS:

Section 1. Section 22.110.010 of the Seattle Municipal Code, last amended by Ordinance 124283, is amended as follows:

22.110.010 Adoption of International Existing Building Code

The Seattle Existing Building Code consists of: (1) the following portions of the ((~~2012~~)) 2015 edition of the International Existing Building Code published by the International Code Council: Chapters 2 through 5, Chapters 7 through 11, Chapters ((~~13~~)) 14 through 16, Chapter A1, ((~~and Chapters~~)) Chapter A3, Chapter A4, and ((~~through~~)) Chapter A6; (2) the amendments and additions to the ((~~2012~~)) 2015 International Existing Building Code adopted by City Council by ((~~Ordinance~~)) ordinance; and (3) Chapter 1 adopted by City Council by ordinance. One copy of the ((~~2012~~)) 2015 International Existing Building Code is filed with the City Clerk in C.F. ((~~313185~~)) 319951.

Section 2. Chapter 1 of the Seattle Existing Building Code is adopted to read as follows:

CHAPTER 1

SCOPE AND ADMINISTRATION

SECTION 101

SCOPE AND APPLICATION OF CODE

101.1 Title. This subtitle shall be known as the "International Existing Building Code." All references to the *International Existing Building Code* contained in this code mean the *Seattle Existing Building Code*.

101.2 Scope. This code applies to the repair, alteration, change of occupancy, addition to, relocation and maintenance of existing buildings.

Exception: Buildings within the scope of the International Residential Code shall comply with the International Residential Code.

101.3 Purpose. The purpose of this code is to provide minimum standards to safeguard life or limb, health, property and public welfare by regulating and controlling the design, construction, quality of materials, occupancy, location and maintenance of certain existing buildings and structures within the City and certain equipment in those buildings, as specifically regulated herein. The purpose of this code is to provide for and promote the health, safety and welfare of the general public, and not to create or otherwise establish or designate any particular class or group of persons who will or should be especially protected or benefited by the terms of this code.

101.4 Compliance. Except as specifically provided in this code, additions, alterations, repairs and changes of occupancy to, and relocation of any building or structure shall comply with the requirements of the code for new construction. Except as specifically provided in this code, additions, alterations, repairs and changes of occupancy to, and relocation of any building or

structure shall be such that the existing building or structure is no less complying with the provisions of the International Building Code than the existing building or structure was prior to the alteration, addition, repair, change of occupancy or relocation.

101.4.1 Unless approved by the code official, this code does not justify conditions in buildings or structures that do not comply with the codes in effect at the time the building or structure was built, including permitted additions, alterations, repairs, changes of occupancy and relocations.

101.4.2 Buildings not previously occupied. A building or portion of a building that has not been previously occupied or used for its intended purpose in accordance with the laws in existence at the time of its completion shall comply with the provisions of the International Building Code for new construction or with any current permit for such occupancy.

101.4.3 Buildings previously occupied. Buildings in existence at the time of the passage of this code that were legally constructed and occupied in accordance with the provisions of a prior code are permitted to have their existing occupancy continued, provided such occupancy is not unsafe.

101.4.3.1 Establishing occupancy for the record. An occupancy is permitted to be established for any date if:

1. The applicant can provide evidence satisfactory to the code official that the occupancy was in existence on that date, and
2. The building can be made to comply with the building code in effect on that date.

101.4.4 Compliance with retroactive ordinances. Alterations and repairs to existing buildings that are being made in response to a notice or order requiring compliance with the

Housing and Building Maintenance Code, Subtitle II, Title 22 of the Seattle Municipal Code, the *Fire Code*, Subtitle VI, Title 22 of the Seattle Municipal Code, or other ordinances applicable to existing buildings, are permitted to be made in accordance with standards contained in those ordinances rather than the standards contained in this code.

101.5 Maintenance. Buildings and structures, and parts thereof, shall be maintained in a safe and sanitary condition. Devices and safeguards which are or were required by a code in effect when the building or structure was erected, altered or repaired shall be maintained in conformance with the code edition under which they were installed. The owner or the owner's designated agent shall be responsible for the maintenance of buildings and structures. To determine compliance with this subsection, the code official shall have the authority to require a building or structure to be reinspected. The requirements of this Chapter shall not provide the basis for removal or abrogation of fire protection and safety systems and devices in existing buildings or structures.

Exception: The code official is authorized to modify the requirements of this subsection where all or a portion of a building is unoccupied, closed off and reasonably secure from unlawful entry.

101.6 Internal Consistency. If in any specific case, different sections of this code specify different materials, methods of construction or other requirements, the most restrictive governs. If there is a conflict between a general requirement and a specific requirement, the specific requirement governs.

101.7 Referenced codes and standards. The codes and standards referenced in this code are considered part of the requirements of this code to the extent prescribed by each such reference.

If differences occur between provisions of this code and referenced codes and standards, the provisions of this code apply.

101.8 References to other codes. Whenever an International, National or Uniform Code is referenced in this code, it means the Seattle edition of that code, including local amendments. References to the "Building Code", "Residential Code", "Fire Code", "Mechanical Code" and "Plumbing Code" mean the Seattle editions of those codes.

101.9 Appendices. Provisions in the appendices of the International Existing Building Code do not apply, with the exception of Chapters A1 and A3 through A6 of Appendix A, which are herein adopted.

101.10 Metric units. Wherever in this code there is a conflict between metric units of measurement and U.S. customary units, the U.S. customary units govern.

101.11 Impracticality. In cases where total compliance with all the requirements of this code is impractical, the applicant may arrange a pre-design conference with the design team and the code official. The applicant shall identify design solutions and modifications that conform to Section 101.12 or 101.13. The code official may waive specific requirements in this code that the code official determines to be impractical.

101.12 Modifications. The code official may modify the requirements of this code for individual cases if the code official finds: (1) there are practical difficulties involved in carrying out the provisions of this code; (2) the modification is in conformity with the intent and purpose of this code; and (3) the modification will provide a reasonable level of fire protection and structural integrity when considered together with other safety features of the building or other relevant circumstances. The code official may, but is not required to, record the approval of

modifications and any relevant information in the files of the code official or on the approved permit plans.

101.13 Alternate materials, methods of construction and design. This code does not prevent the use of any material, design or method of construction not specifically allowed or prohibited by this code, provided the alternate has been approved and its use authorized by the code official.

The code official may approve an alternate, provided the code official finds that the proposed alternate complies with the provisions of this code, and that the alternate, when considered together with other safety features of the building or other relevant circumstances, will provide at least an equivalent level of strength, effectiveness, fire resistance, durability, safety and sanitation.

The code official may require that sufficient evidence or proof be submitted to reasonably substantiate any claims regarding the use or suitability of the alternate. The code official may, but is not required to, record the approval of code alternates and any relevant information in the files of the code official or on the construction documents.

101.14 Unsafe conditions. The code official shall have the authority to require the elimination of conditions deemed unsafe in accordance with International Building Code Section 102.

SECTION 102

ADMINISTRATION

102.1 General. Additions, alterations, repairs and changes of occupancy to and relocations of buildings and structures are subject to Chapter 1 of the Seattle Building Code.

Section 3. The following sections of Chapter 2 of the International Existing Building Code, 2015 Edition, are amended as follows:

CHAPTER 2

DEFINITIONS

***

SECTION 202

GENERAL DEFINITIONS

***

[A] APPROVED. Acceptable to the *code official* ((~~*or* authority having jurisdiction~~)).

***

[A]CODE OFFICIAL. The Director of the Department of Construction and Inspections and authorized representatives. ((~~officer or other designated authority charged with the administration and enforcement of this code.~~))

DAMAGE RATIO. The ratio between the cost of work and the estimated replacement cost of the building, expressed as a percentage.

((~~**[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 service loads.~~))

***

DESIGN BASIS EARTHQUAKE (DBE). The lesser of an earthquake with a 10% chance of exceedance in 50 years or two-thirds of an earthquake with a 2% probability of exceedance in 50 years.

***

[A]EXISTING BUILDING; EXISTING STRUCTURE. A building or structure erected prior to the date of adoption of ((~~the appropriate~~)) this code, or one for which a ((~~legal building permit~~)) valid Certificate of Occupancy has been issued, or one that has passed a final inspection.

***

((~~**HISTORIC BUILDING.** Any building or structure that is one or more of the following:~~

~~1. Listed, or certified as eligible for listing, by the State Historic Preservation Officer or the Keeper of the National Register of Historic Places, in the National Register of Historic Places.~~

~~2. Designated as historic under an applicable state or local law.~~

~~3. Certified as a contributing resource within a National Register, state designated or locally designated historic district.~~))

LANDMARK. A building or structure that is subject to a requirement to obtain a certificate of approval from the City Landmarks Preservation Board before altering or making significant changes to specific features or characteristics, that has been nominated for designation and the City Landmarks Preservation Board has not issued a determination regarding designation, that has been designated for preservation by the City Landmarks Preservation Board, that has been designated for preservation by the State of Washington, that has been listed or determined eligible to be listed in the National Register of Historic Places, or that is located in a landmark or special review district subject to a requirement to obtain a certificate of approval before making a change to the external appearance of a structure.

LIFE SAFETY PERFORMANCE LEVEL. A post-earthquake damage state that includes damage to structural elements, but the building retains a margin against partial or total collapse.

Injuries may occur, but the overall risk of life-threatening injury as a result of structural damage is expected to be low.

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RISK CATEGORY. A categorization of buildings and other structures for determination of flood, wind, snow, ice and earthquake loads based on the risk associated with unacceptable performance, determined in accordance with Section 1604.5 of the *International Building Code*.

***

SUBSTANTIAL ALTERATION. See Section 304.1.

***

[BS] SUBSTANTIAL IMPROVEMENT. ((~~For the purpose of determining compliance with the flood provisions of this code, any~~)) Any *repair*, *alteration*, *addition*, or improvement of a building or structure, the cost of which equals or exceeds 50 percent of the market value of the structure, before the improvement or *repair* is started. If the structure has sustained *substantial damage*, any repairs are considered *substantial improvement* regardless of the actual *repair* work performed. The term does not, however, include either:

1. Any project for improvement of a building required to correct existing health, sanitary, or safety code violations identified by the *code official* and that is the minimum necessary to ensure safe living conditions; or
2. Any *alteration* of a ((~~historic~~)) *landmark* structure, provided that the *alteration* will not preclude the structure's continued designation as a ((~~historic~~)) *landmark* structure.

((~~**[BS] SUBSTANTIAL STRUCTURAL DAMAGE.** A condition where one or both 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 the structure 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 supports 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 this code for new buildings of similar structure, purpose and location.~~))

****

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.~~)) Structurally unsound, provided with inadequate egress, constituting a fire hazard, or otherwise dangerous to human life, or constituting a hazard to safety, health or public welfare.

WORK AREA. That portion or portions of a building consisting of all reconfigured spaces as indicated on the construction documents. Work area excludes other portions of the building where incidental work entailed by the intended work must be performed or portions of the building where work not initially intended by the owner is specifically required by this code. The

boundary of the work area includes all spaces not physically separated from rooms or spaces where work is being performed.

Section 4. The following sections of Chapter 3 of the International Existing Building Code, 2015 Edition, are amended as follows:

CHAPTER 3

PROVISIONS FOR ALL COMPLIANCE METHODS

SECTION 301

((~~ADMINISTRATION~~)) COMPLIANCE METHODS

301.1 General. All *repairs*, *alterations*, *changes of occupancy*, *additions* and relocations of buildings shall comply with this chapter. The ((~~*repair*,~~)) *alteration*, *change of occupancy*, *addition* or relocation of all *existing buildings* and structures shall also comply with one of the methods listed in Sections 301.1.1 through 301.1.3 as selected by the applicant Sections 301.1.1 through 301.1.3 shall not be applied in combination with each other. ((~~Where this code requires consideration of the seismic force-resisting system of an *existing building* subject to *repair*, *alteration*, *change of occupancy*, *addition* or relocation of *existing buildings*, the seismic evaluation and design shall be based on Section 301.1.4 regardless of which compliance method is used.~~))

Exception: Subject to the approval of the *code official*, *alterations* ((~~complying~~)) that comply 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 unless the building is undergoing ((~~more than a limited structural *alteration* as defined in Section 907.4.4~~)) *substantial alteration*. New structural members added as part of the *alteration* shall

comply with the *International Building Code*. *Alteration*s of *existing buildings* in *flood hazard areas* shall comply with Section ((~~701.3~~)) 310.

301.1.1 Prescriptive compliance method. ((~~*Repairs, a*~~))*Alterations, additions*, and *changes of occupancy* complying with Chapter 4 of this code in buildings complying with the *International Fire Code* shall be considered in compliance with the provisions of this code.

301.1.2 Work area compliance method. ((~~*Repairs, a*~~))*Alterations, additions,* and *changes* ((~~in~~)) *of occupancy* ((~~and relocated buildings~~)) complying with the applicable requirements of Chapters 5 and 7 through 13 of this code shall be considered in compliance with the provisions of this code.

301.1.3 Performance compliance method. ((~~*Repairs, a*~~))*Alterations, additions,* and *changes* ((~~in~~)) of *occupancy* ((~~and relocated buildings~~)) complying with Chapter 14 of this code shall be considered in compliance with the provisions of this code.

((~~**[BS] 301.1.4 Seismic evaluation and design procedures.** The seismic evaluation and design shall be based on the procedures specified in the *International Building Code* or ASCE 41. The procedures contained in Appendix A of this code shall be permitted to be used as specified in Section 301.1.4.2.~~

~~**[BS] 301.1.4.1 Compliance with International Building Code-level seismic forces.** Where compliance with the seismic design provisions of the *International Building Code* is required, the criteria shall be in accordance with one of the following:~~

~~1. One-hundred percent of the values in the *International Building Code*. Where the existing seismic force-resisting system is a type that can be designated as "Ordinary," values of R, Ω0 and *Cd* 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 the two level performance objective in Table 301.1.4.1 for the applicable risk category.~~

~~**[BS] 301.1.4.2 Compliance with reduced International Building Code-level seismic forces.** Where seismic evaluation and design is permitted to meet reduced *International Building Code* seismic force levels, the criteria used shall be in accordance with one of the following:~~

~~1. The *International Building Code* using 75 percent of the prescribed forces. Values of *R*, Ω0 and *Cd* used for analysis shall be as specified in Section 301.1.4.1 of this code.~~

~~2. Structures or portions of structures that comply with the requirements of the applicable chapter in Appendix A as specified in Items 2.1 through 2.5 and subject to the limitations of the respective Appendix A chapters shall be deemed to comply with this section.~~

~~2.1. The seismic evaluation and design of unreinforced masonry bearing wall buildings in Risk Category I or II are permitted to be based on the procedures specified in Appendix Chapter A1.~~

~~2.2. Seismic evaluation and design of the wall anchorage system in reinforced concrete and reinforced masonry wall buildings with flexible diaphragms in Risk Category I or II are permitted to be based on the procedures specified in Chapter A2.~~

~~2.3. Seismic evaluation and design of cripple walls and sill plate anchorage in residential buildings of light-frame wood construction in Risk Category I or II are permitted to be based on the procedures specified in Chapter A3.~~

~~2.4. Seismic evaluation and design of soft, weak, or open-front wall conditions in multiunit residential buildings of wood construction in Risk Category I or II are permitted to be based on the procedures specified in Chapter A4.~~

~~2.5. Seismic evaluation and design of concrete buildings assigned to Risk Category I, II or III are permitted to be based on the procedures specified in Chapter A5.~~

~~3. ASCE 41, using the performance objective in Table 301.1.4.2 for the applicable risk category.~~))

((**~~[BS] TABLE 301.1.4.1~~**

~~PERFORMANCE OBJECTIVES FOR USE IN ASCE 41 FOR COMPLIANCE WITH INTERNATIONAL BUILDING CODE-LEVEL SEISMIC FORCES~~))

((**~~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] TABLE 301.1.4.2**~~

~~**PERFORMANCE OBJECTIVES FOR USE IN ASCE 41 FOR COMPLIANCE WITH REDUCED INTERNATIONAL BUILDING CODE-LEVEL SEISMIC FORCES**~~))

((~~**RISK CATEGORY (Based on IBC Table 1604.5)**~~	~~**STRUCTURAL PERFORMANCE LEVEL FOR USE WITH BSE-1E EARTHQUAKE HAZARD LEVEL**~~
~~I~~	~~Life safety (S-3)~~
~~II~~	~~Life safety (S-3)~~
~~III~~	~~Damage Control S-2. See Note a~~
~~IV~~	~~Immediate Occupancy (S-1)~~))

((~~a. Tier 1 evaluation at the Damage Control performance level shall use the Tier 1 Life Safety checklists and Tier 1 Quick Check provisions midway between those specified for Life Safety and Immediate Occupancy performance.~~))

SECTION 302

ADDITIONAL REQUIREMENTS FOR ALL COMPLIANCE METHODS

((~~**GENERAL PROVISIONS**~~))

302.1 Applicability. The provisions of Section 302 apply to all *alterations*, *repairs*, *additions*, relocations of structures and *changes of occupancy* regardless of the compliance method chosen by the applicant.

302.2 Additional codes. Regardless of the compliance method, ((~~*A*~~))*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*~~)) *Uniform Plumbing Code*, ((~~*International Property Maintenance Code, International Private Sewage Disposal Code, International Residential Code*~~)) *Seattle Boiler and Pressure Vessel Code, Seattle Electrical Code* and NFPA 70. Elevators and other conveyances shall comply with the *International Building Code*. Where provisions of the other codes conflict with provisions of this code, the provisions of this code shall take precedence.

[W] 302.2.1 Fire prevention. Except as specifically provided for in this code, the provisions of the *International Fire Code* shall apply to matters affecting or relating to structures, processes and premises regarding:

1. The hazard of fire and explosion arising from the storage, handling or use of structures, materials or devices;
2. Conditions hazardous to life, property or public welfare in the occupancy of structures or premises; and
3. The construction, extension, *repair*, *alteration* or removal of fire suppression and alarm systems or fire hazards in the structure or on the premises from occupancy or operation.

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

***

302.6 Safeguards during construction. Regardless of compliance method, *alterations*, repairs *additions* and *changes of occupancy* to, or relocation of, *existing buildings* and structures shall comply with the provisions of Chapter 15.

302.7 Occupant load increases in Group A occupancies. Regardless of which compliance method is used, when the occupant load in an existing Group A occupancy is increased, an automatic sprinkler system shall be installed in the fire area containing the Group A occupancy if a sprinkler system would be required by *International Building Code* Section 903.2.1 for new construction.

Exception: A sprinkler system is not required if all the following conditions are met:

1. The increase in occupant load is either 50 occupants or less, or no more than 10 percent of the occupant load of the existing Group A occupancy, whichever is greater; and
2. The existing means of egress has adequate capacity to accommodate the additional occupant load; and
3. The total occupant load in the Group A occupancy does not exceed one occupant per 5 square feet; and
4. The increase in occupant load is not part of a *substantial alteration*.

302.8 Unsafe building appendages. Parapet walls, cornices, spires, towers, tanks, statuary and other appendages or structural members that are supported by, attached to, or a part of a building and that are in a deteriorated condition or are otherwise unable to sustain the design loads that are specified in this code, are hereby designated as *unsafe* building appendages. All such *unsafe* building appendages are public nuisances and shall be abated in accordance with Section 101.14.

302.9 Unreinforced masonry chimneys. Whenever an unreinforced masonry chimney is altered or *repaired*, or when the building in which such a chimney is located undergoes *substantial alteration*, the chimney shall conform to rules promulgated by the code official.

SECTION 303

REPAIRS

303.1 Repairs. Damaged buildings and structures, and parts thereof shall be *repaired* in compliance with this section. Work on undamaged parts of a building or structure that is necessary for the required *repair* of damaged parts shall be considered part of the *repair* and shall not be subject to the requirements for *alterations* except as specifically required in this chapter. Routine maintenance, ordinary *repairs* exempt from permit in accordance with *International Building Code* Section 106.2, and abatement of wear due to normal service conditions shall not be subject to the requirements for *repairs* in this section.

303.1.1 Determining repair levels. *Repairs* shall be classified as *repair* of minor damage, *repair* of moderate damage, *repair* of significant damage, or *repair* of extensive damage. Required *repair* levels shall be based on the *damage ratio* as defined in Section 202. *Damage ratios* shall be determined according to rules promulgated by the Director.

303.1.2 Requirements for repair of minor damage. *Repair* of buildings with *damage ratios* less than 10 percent shall comply with this Section 303.1.2. Repair of unreinforced masonry chimneys shall comply with Section 302.9.

1. Damage to structural elements and fire/life safety systems shall be repaired.
2. New or replaced elements shall comply with current code requirements.

Exception: Like materials shall be permitted for nonstructural alterations, provided no hazard to life, health or property is created, and the materials do not adversely

affect any structural member or result in a change to the fire-resistance rating of any part of the building or structure.

3. New or replaced structural elements shall be tied into new or existing structure in accordance with the structural engineer's recommendations and accepted practice.

4. All structural *repairs* shall be designed and approved by a structural engineer licensed in the State of Washington.

5. Cracked concrete and masonry shall be repaired if repair is required by FEMA 306, 307 and 308.

6. Strengthening of the entire building or structure is not required.

7. Fire protection and life safety systems required when the building was built or altered shall be repaired in accordance with Section 101.5.

8. No portion of the building shall be repaired in such a manner that the building becomes less safe than it was before the damage occurred, nor shall the repair create an unsafe condition as defined in Section 101.14.

303.1.3 Requirements for repair of moderate damage. *Repair* of buildings with *damage ratios* of at least 10 percent and less than 30 percent shall comply with Section 303.1.2 and this Section 303.1.3.

All structures supporting and supported by the damaged portions of the building shall be repaired in accordance with items 1–6 below.

1. The capacity of existing structural elements supporting and supported by the damaged portion of the building shall not be less than the capacity of those elements before the damage occurred.

2. The lateral loading to existing elements of the lateral force resisting systems shall not be increased beyond their capacity.

3. New work shall not introduce new irregularities, and shall not worsen existing irregularities.

4. New structural elements shall be detailed and connected to the existing structural elements as required by this code.

5. New or relocated nonstructural elements shall be detailed and connected to existing or new structural elements as required by this code.

6. The *alterations* shall not create an *unsafe* condition.

303.1.4 Requirements for repair of significant damage. *Repair* of buildings with *damage ratios* of at least 30 percent and less than 50 percent shall comply with Sections 303.1.2, 303.1.3 and this Section 303.1.4.

1. The engineer shall submit a report identifying structural damage, and falling hazards to exitways, pedestrian walkways and public rights of way. The report shall also contain a statement acknowledging that compliance with this section may not satisfy the requirements for *substantial alteration* of Section 304.

2. All identified falling hazards in exits and exit discharges shall be mitigated so as to limit damage at primary means of egress.

3. The walls, roofs and floors of unreinforced masonry buildings shall comply with the sections of ASCE 31 or Table 303.1. For ASCE 31 use of 3/4 of the *design basis earthquake* values with a minimum value of 0.80 for S_{DS} and of 0.35 for S_{D1} is permitted.

Exception: If the tested mortar strength is less than the minimums indicated in Table 303.1, Item a, the structure shall comply with the full provisions of ASCE 31 or this code.

4. Repair of damage for buildings subject to this Section 303.1.4 will be considered when determining whether Section 304 provisions for *substantial alterations* apply.

TABLE 303.1

REQUIREMENTS FOR UNREINFORCED MASONRY BUILDINGS

Component	ASCE 31 Section	Appendix A Section
a. Masonry strength (mortar and anchor tests) for anchorage to masonry and for wall bracing	4.2.6.2.2	A106.3.3
b. Diaphragm shear transfer	4.2.6.3.2.6	A111.5
c. Out-of-plane transfer	4.2.6.3.5	A113.1
d. Wall bracing	4.2.6.3.4	A113.5

303.1.5 Requirements for repair of extensive damage. *Repair* of buildings with *damage ratios* of at least 50 percent and less than 60 percent shall comply with Sections 303.1.2 through 303.1.4 and this Section 303.1.5.

1. The structure shall be *repaired* and designed to satisfy the requirements of ASCE 31 or ASCE 41 and the performance criteria in Table 305.4.2.

2. A seismic evaluation report shall be submitted. The report shall comply with Section 305.4.2, rules promulgated by the *code official*, and the following requirements:

2.1 The report shall be prepared by a structural engineer registered in the State of Washington.

2.2 The report shall be based on ASCE 31 or ASCE 41 and the performance criteria in Table 305.4.2.

Exception: Unreinforced masonry buildings are permitted to comply with Appendix A1. The reduction of Section 303.1.4 Item 3 is not allowed.

2.3 At a minimum, the report shall contain the information listed below. A previously-written report may be submitted if it satisfies the requirements of this section.

2.3.1 An overall description of the building, including size (number of stories and basements, approximate floor area) and the occupancies or uses in the building.

2.3.2 Identification of building deficiencies.

2.3.3 A prioritized list of recommendations from the structural engineer on how to address the identified deficiencies.

2.3.4 The seismic evaluation report shall comply with rules promulgated by the *code official.*

303.1.6 Requirements for repair of more than extensive damage. *Repair* of buildings with *damage ratios* of 60 percent or more shall comply with Section 304.

SECTION 304

SUBSTANTIAL ALTERATION REQUIREMENTS FOR ALL COMPLIANCE METHODS

304.1 Substantial alterations or repairs. Regardless of which compliance method is used, a building or structure to which *substantial alterations* or *repairs* are made shall conform with the requirements of this section and the following sections of the *International Building Code*:

1. Section 403 when applicable;

2. Special requirements for the Fire District found in Chapter 4 when applicable;

3. Section 717;

4. Chapter 8;

5. Section 903 and 905;

6. Sections 909.20.5, 909.20.6 and 909.21; and

7. Chapter 10.

8. Fire alarms shall be provided as required by the *International Fire Code*.

304.1.1 Definition. For the purpose of this section, *substantial alteration* or repair means any one of the following, as determined by the *code official*:

1. *Repair* of a building with a *damage ratio* of 60 percent or more.

2. Remodeling or an *addition* that substantially extends the useful physical or economic life of the building or a significant portion of the building, other than typical tenant remodeling.

3. A change of a significant portion of a building to an occupancy that is more hazardous than the existing occupancy, based on the combined life and fire risk as determined by the *code official*. The *code official* is permitted to use Table 304.1 as a guideline.

4. Reoccupancy of a building that has been substantially vacant for more than 24 months in occupancies other than Group R-3.

5. A significant increase in the occupant load of an unreinforced masonry building.

304.1.2 Seismic regulations. Buildings or structures to which *substantial alterations* or *repairs* are made shall comply with Section 305.4.2. In addition, the *code official* is authorized to require testing of existing materials when there is insufficient evidence of structural strength or integrity.

Exceptions:

1. If an *alteration* is substantial only because it is a change to a more hazardous occupancy, compliance with this subsection is required only if the life hazard risk increases, as determined by the *code official*.
2. For Group R-3 occupancies, when approved by the *code official*, the applicant is permitted to evaluate and strengthen portions of the building lateral support structure, such as foundations and cripple walls.

304.1.3 Report. A proposal for structural rehabilitation shall be submitted based on a comprehensive report prepared by a licensed structural engineer according to rules promulgated by the *code official*. The report shall include an investigation and structural analysis of the building based on Section 305.4.2. The report shall specify the building's seismic deficiencies, and propose measures that will provide an acceptable degree of seismic safety considering the nature, size and scope of the project. This requirement shall also apply to Section 101.14 as conditions require.

304.1.4 Energy use regulations. An *alteration* or *repair* described in Items 1, 2, or 4 of Section 304.1.1 shall comply with Section C503.8 of the *International Energy Conservation Code*.

Exceptions:

1. Existing residential buildings of three stories or less are not required to comply with this section.
2. A project that is defined as a *substantial alteration* primarily due to the seismic retrofitting of a building's unreinforced masonry walls shall not be required to comply with this section.

TABLE 304.1

RATING OF OCCUPANCIES BY DEGREE OF HAZARD

Occupancy	Description	Life	Fire	Combined Rating
A1	Assembly uses, usually with fixed seating, intended for the production and viewing of the performing arts or motion pictures	4	3	12
A2	Assembly uses intended for food and/or drink consumption	4	3	12
A3	Assembly uses intended for worship, recreation or amusement and other assembly uses not classified elsewhere in Group A	4	3	12
A4	Assembly uses intended for viewing of indoor sporting events and activities with spectator seating	3	1	3
A5	Assembly uses intended for participation in or viewing outdoor activities	3	1	3
B	Office, professional or service-type transactions, including storage of records and accounts.	2	1	2
B	Eating & drinking establishments with an occupant load of less than 50	2	1	2
B	Buildings or portions of buildings having rooms used for educational purposes beyond 12th grade	2	1	2
E	Any building used for educational purposes by six or more persons at any one time for educational purposes through the 12th grade	3	2	6
E	Day care centers for more than five children older than $2^1/_2$ years of age	3	2	6
I4	Facilities that provide accommodations for less than 24 hours for more than five unrelated adults and provides supervision and personal care services; facilities that provide supervision and personal care on less than a 24-hour basis for more than five children $2^1/_2$ years of age or less	4	3	12
F1	Moderate hazard factory and industrial	2	2	4
F2	Low-hazard factory and industrial	1	1	1
H1	Occupancies with a detonation hazard	5	4	20
H2	Occupancies which present a deflagration hazard or a hazard from accelerated burning	5	4	20
H3	Occupancies containing materials that readily support combustion or that pose a physical hazard	5	4	20
H4	Occupancies containing materials that are health hazards	5	4	20

Occupancy	Description	Life	Fire	Combined Rating
H5	Semiconductor fabrication facilities	5	4	20
I1	Buildings, structures or portions thereof for more than 16 persons, excluding staff, who reside on a 24- hour basis in a supervised environment and receive custodial care	3	3	9
I2	Buildings and structures used for medical care on a 24-hour basis for more than five persons who are incapable of self-preservation	4	3	12
I3	Buildings and structures that are inhabited by more than five persons who are under restraint or security	4	3	12
M	Buildings used for display and sale of merchandise	3	2	6
R1	Occupancies containing sleeping units where the occupants are primarily transient in nature	3	3	9
R2	Occupancies containing sleeping units or more than two dwelling units where the occupants are primarily permanent in nature	3	3	9
R3	Residential 3 occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, or I	2	1	2
S1	Moderate hazard storage	2	2	4
S2	Low-hazard storage	1	1	1
U	Buildings and structures of an accessory character and miscellaneous structures	1	1	1

SECTION 305

STRUCTURAL REQUIREMENTS FOR ALL COMPLIANCE METHODS

305.1 Structural provisions for alterations. Alterations to any building or structure shall comply with the requirements of Sections 305.1.1 through 305.1.6.

[BS] 305.1.1 New structural elements. New structural elements in *alterations*, including connections and anchorage, shall comply with the *International Building Code*.

[BS] 305.1.2 Minimum design loads. The minimum design loads on existing elements of a structure that do not support additional loads as a result of an *alteration* shall be the loads applicable at the time the building was constructed.

305.1.3 Existing structural elements carrying gravity load. Any existing gravity load-carrying structural element for which an *alteration* causes an increase in design gravity load of more than 5 percent shall be strengthened, supplemented, replaced or otherwise altered as needed to carry the increased gravity load 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 loads required by the *International Building Code* for new structures.

Exception: Buildings of Group R occupancy with not more than five dwelling or sleeping units used solely for residential purposes where the existing building and its alteration comply with the conventional light-frame construction methods of the International Building Code.

305.1.3.1. Design live load. Where the 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 alteration. If the *approved* live load for storage occupancies is less than that required by Section 1607 of the *International Building Code*, the area designed for the nonconforming live load shall be posted with placards of approved design indicating the approved live load. Where the alteration does result in increased design live load, the live load required by Section 1607 of the *International Building Code* shall be used.

305.1.4 Existing structural elements carrying lateral load. Where the *alteration* increases design lateral loads in accordance with Section 1609 or 1613 of the *International Building Code*, or where the *alteration* results in a prohibited structural irregularity as defined in

ASCE 7, or where the *alteration* decreases the capacity of any existing lateral load-carrying structural element, the structure of the altered building or structure shall be shown to meet the requirements of Sections 1609 and 1613 of the *International Building Code*. Reduced International Building Code-level seismic forces shall be permitted.

Exception: Any existing lateral load-carrying structural element whose demand-capacity ratio with the *alteration* considered is no 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 Sections 1609 and 1613 of the *International Building Code*. Reduced *International Building Code* level seismic forces in accordance with Section 305.4.2 shall be permitted. 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.

[BS]305.1.5 Wall anchorage for unreinforced masonry walls in major alterations. Where the portion of the building undergoing the intended *alteration* exceeds 50 percent of the aggregate area of the building, the building is assigned to Seismic Design Category C, D, E or F, and the building's structural system includes unreinforced masonry walls, the *alteration* work shall include installation of wall anchors at the roof line to resist seismic forces, unless an evaluation demonstrates compliance of existing wall anchorage. For purposes of this section, design seismic forces need not be taken greater than 75 percent of those that would be required for the design of new buildings of similar structure, purpose and location.

[BS]305.1.6 Voluntary seismic improvements. *Alterations* to existing structural elements or *additions* of new structural elements that are not otherwise required by this chapter and are initiated for the purpose of improving the performance of the seismic force-resisting system of an existing structure or the performance of seismic bracing or anchorage of existing nonstructural elements shall be permitted, if an engineering analysis is submitted demonstrating the following:

1. The altered structure and the altered nonstructural elements are no less conforming to the provisions of the *International Building Code* with respect to earthquake design than they were prior to the *alteration*.

Exception: Any existing lateral load-carrying structural element whose demand-capacity ratio with the *alteration* considered is no 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 per 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.

2. New structural elements are detailed as required for new construction.

3. New or relocated nonstructural elements are detailed and connected to existing or new structural elements as required 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.

305.2 Structural provisions for changes of occupancy. When a *change of occupancy* results in a structure being reclassified to a higher risk category determined in accordance with Table 1604.5 of the *International Building Code*, the structure shall conform to the seismic requirements for a new structure of the higher risk category. For purposes of this section, compliance with ASCE 41, using a Tier 3 procedure and the two-level performance objective in Table 305.4.1for the applicable risk category, shall be deemed to meet the requirements of Section 1613 of the *International Building Code.*

Exception: Specific seismic detailing requirements of Section 1613 of the *International Building Code* for a new structure shall not be required to be met where the seismic performance is shown to be equivalent to that of a new structure. A demonstration of equivalence shall consider the regularity, overstrength, redundancy and ductility of the structure.

305.3 Structural provisions for additions. *Additions* to any building or structure shall comply with the requirements of Sections 305.3.1 through 305.3.2.

305.3.1 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 gravity load of more than 5 percent shall be strengthened, supplemented, replaced or otherwise altered as needed to carry the increased gravity load required by the *International Building Code* for new structures.

Any existing gravity load-carrying structural element whose gravity load-carrying capacity is decreased shall be considered an altered element subject to the requirements of Section 305.1.3. Any existing element that will form part of the lateral load path for any part

of the *addition* shall be considered an existing lateral load-carrying structural element subject to the requirements of Section 305.3.2.

[B] 305.3.1.1 Design live load. Where the *addition* 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*. If the *approved* live load is less than that required by Section 1607 of the *International Building Code*, the area designed for the nonconforming live load shall be posted with placards of approved design indicating the approved live load. Where the *addition* does result in increased design live load, the live load required by Section 1607 of the *International Building Code* shall be used.

305.3.2 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 existing structure and its *addition* acting together as a single structure shall be shown to meet the requirements of Sections 1609 and 1613 of the *International Building Code*. For purposes of this section, compliance with ASCE 41, using a Tier 3 procedure and the two-level performance objective in Table 305.4.1for the applicable risk category, shall be deemed to meet the requirements of Section 1613 of the *International Building Code*.

Exception: Any existing lateral load-carrying structural element whose demand-capacity ratio with the *addition* considered is no 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.

[BS] 305.4 Seismic evaluation and design procedures. The seismic evaluation and design shall be based on the procedures specified in the *International Building Code*, ASCE 31, or ASCE 41. The procedures contained in Appendix A of this code shall be permitted to be used as specified in Section 305.4.2.

[BS] 305.4.1 Compliance with International Building Code-level seismic forces. Where compliance with the seismic design provisions of the *International Building Code* is required, the criteria shall be in accordance with one of the following:

1. One-hundred percent of the values in 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 the two-level performance objective in Table 305.4.1 for the applicable risk category.

TABLE 305.4.1

PERFORMANCE OBJECTIVES FOR USE IN ASCE 41 FOR COMPLIANCE WITH INTERNATIONAL BUILDING CODE-LEVEL SEISMIC FORCES

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] 305.4.2 Compliance with reduced International Building Code-level seismic forces. Where seismic evaluation and design is permitted to meet reduced *International Building Code* seismic force levels, the criteria used shall be in accordance with one of the following:

1. 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 305.4.1 of this code.
2. Structures or portions of structures that comply with the requirements of the applicable chapter in Appendix A as specified in Items 2.1 through 2.5 and subject to the limitations of the respective Appendix A chapters shall be deemed to comply with this section.

2.1. The seismic evaluation and design of unreinforced masonry bearing wall buildings in Risk Category I or II are permitted to be based on the procedures specified in Appendix Chapter A1.

2.2. Reserved.

2.3. Seismic evaluation and design of cripple walls and sill plate anchorage in residential buildings of light-frame wood construction in Risk Category I or II are permitted to be based on the procedures specified in Chapter A3.

2.4. Seismic evaluation and design of soft, weak, or open-front wall conditions in multiunit residential buildings of wood construction in Risk Category I or II are permitted to be based on the procedures specified in Chapter A4.

2.5.Reserved.

3. Compliance with ASCE 31 based on the applicable performance level as shown in Table 305.4.2. It shall be permitted to use the *design basis earthquake*. The design spectral response acceleration parameters SXS and SX1 specified shall not be taken less than 75 percent of the respective design spectral response acceleration parameters SDS and SD1 defined by the *International Building Code*.

4. ASCE 41, using the performance objective in Table 305.4.2for the applicable risk category. For a Tier 3 procedure, use the two-level performance objective in Table 305.4.3 for the applicable risk category. Tier 1 or Tier 2 procedures need not consider the performance objective using the BSE-2E hazard level.

TABLE 305.4.2

PERFORMANCE LEVELS FOR USE IN ASCE 31 FOR COMPLIANCE WITH REDUCED

INTERNATIONAL BUILDING CODE-LEVEL SEISMIC FORCES

RISK CATEGORY (Based on IBC Table 1604.5)	PERFORMANCE LEVEL
I	Life safety (LS)
II	Life safety (LS)
III	Notes a, b
IV	Immediate occupancy (IO)

a. Acceptance criteria for Risk Category III shall be taken as 80 percent of the acceptance criteria specified for Risk Category II performance levels, but need not be less than the acceptance criteria specified for Risk Category IV levels.

b. For Risk Category III, the ASCE 31 screening phase checklists shall be based on the life safety performance level.

TABLE 305.4.3

PERFORMANCE OBJECTIVES FOR USE IN ASCE 41 FOR COMPLIANCE WITH REDUCED INTERNATIONAL BUILDING CODE-LEVEL SEISMIC 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)	Collapse Prevention (S-5)
II	Life safety (S-3)	Collapse Prevention (S-5)
III	Damage Control S-2. See Note a	Limited Safety (S-4)
IV	Immediate Occupancy (S-1)	Life-Safety (S-3)

a. Tier 1 evaluation at the Damage Control performance level shall use the Tier 1 Life Safety checklists and Tier 1 Quick Check provisions midway between those specified for Life Safety and Immediate Occupancy performance.

SECTION 306

LANDMARKS

[B] 306.1 Landmarks. The provisions of this code relating to the construction, *repair*, *alteration*, *addition*, restoration and movement of structures, and *change of occupancy* shall be mandatory for landmarks. Landmarks shall comply with the accessibility requirements of Section 307.9.

Exception: Where *approved* by the *code official*, compliance with this code is not required where preservation of historic elements precludes complete compliance and a reasonable degree of safety to the public and the occupants of the building is provided.

SECTION 307

ACCESSIBILITY FOR EXISTING BUILDINGS

307.1 Scope. The provisions of Sections 307.1 through 307.9 apply to maintenance, *change of occupancy*, *additions* and *alterations* to *existing buildings*, including those identified as *historic buildings*.

307.2 Maintenance of facilities. A *facility* that is constructed or altered to be *accessible* shall be maintained *accessible* during occupancy.

307.3 Extent of application. Maintenance, *alterations*, *change of occupancy*, *additions* to or relocations of *existing buildings* shall not impose a requirement for greater accessibility than that which would be required for new construction. Maintenance, *alterations*, *change of occupancy*, *additions* to or relocations of *existing buildings* shall not reduce or have the effect of reducing accessibility of a *facility* or portion of a *facility*.

307.4 Change of occupancy. *Existing buildings* that undergo a change of occupancy shall comply with this section.

Exception: Type B dwelling or sleeping units required by Section 1107 of the *International Building Code* are not required to be provided in *existing buildings* and facilities undergoing a *change of occupancy* in conjunction with *alterations* where the *work area* is 50 percent or less of the aggregate area of the building or less than a level 3 *alteration*.

307.4.1 Partial change in occupancy. Where a portion of the building is changed to a new occupancy classification, any *alterations* shall comply with Sections 307.6, 307.7 and 307.8, as applicable.

307.4.2 Complete change of occupancy. Where an entire building undergoes a *change of occupancy*, it shall comply with Section 307.4.2 and shall have all of the following accessible features:

1. At least one accessible building entrance.

2. At least one accessible route from an accessible building entrance to *primary function* areas.

3. Signage complying with Section 1111 of the *International Building Code*.

4. Accessible parking, where parking is being provided.

5. At least one accessible passenger loading zone, when loading zones are provided.

6. At least one accessible route connecting accessible parking and accessible passenger loading zones to an accessible entrance.

Where it is *technically infeasible* to comply with the new construction standards for any of these requirements for a change of occupancy, the above items shall conform to the requirements to the maximum extent technically feasible.

Exception: The accessible features listed in Items 1 through 6 are not required for an accessible route to Type B units.

307.5 Additions. 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 307.7.

307.6 Alterations. A *facility* that is altered shall comply with the applicable provisions in Chapter 11 of the *International Building Code*, unless *technically infeasible*. Where compliance with this section is *technically infeasible*, the *alteration* shall provide access to the maximum extent technically feasible.

Exceptions:

1. The altered element or space is not required to be on an accessible route, unless required by Section 307.7.

2. Accessible means of egress required by Chapter 10 of the *International Building Code* are not required to be provided in existing facilities.

3. 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.

4. Type B dwelling or sleeping units required by Section 1107 of the *International Building Code* are not required to be provided in *existing buildings* and facilities undergoing a *change of occupancy* in conjunction with *alterations* where the *work area* is 50 percent or less of the aggregate area of the building.

307.7 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*. The accessible route to the *primary function* area shall include toilet facilities, telephones and drinking fountains serving the area of *primary function*.

Exceptions:

1. The costs of providing the *accessible* route 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.

307.8 Scoping for alterations. The provisions of Sections 307.8.1 through 307.8.15 shall apply to *alterations* to *existing buildings* and *facilities*.

307.8.1 Entrances. *Accessible* entrances shall be provided in accordance with Section 1105 of the *International Building Code*.

Exception: Where an *alteration* includes alterations to an entrance, and the *facility* has an *accessible* entrance, the altered entrance is not required to be *accessible*, unless required by Section 307.7. Signs complying with Section 1111 of the *International Building Code* shall be provided.

307.8.2 Elevators. Altered elements of existing elevators shall comply with ASME A17.1 and ICC A117.1. Such elements shall also be altered in elevators programmed to respond to the same hall call control as the altered elevator.

307.8.3 Platform lifts. Platform (wheelchair) lifts complying with ICC A117.1 and installed in accordance with ASME A18.1 shall be permitted as a component of an accessible route.

307.8.4 Stairways and escalators in existing buildings. In *alterations*, *change of occupancy* or *additions* where an escalator or stairway is added where none existed previously and major structural modifications are necessary for installation, an accessible route shall be provided between the levels served by the escalator or stairways in accordance with Section 1104.4 of the *International Building Code.*

307.8.5 Ramps. Where slopes steeper than allowed by Section 1012.2 of the *International Building Code* are necessitated by space limitations, the slope of ramps in or providing access to existing facilities shall comply with Table 307.8.5.

TABLE 307.8.5

RAMPS

SLOPE	MAXIMUM RISE
Steeper than 1:10 but not steeper than 1:8	
Steeper than 1:12 but not steeper than 1:10	

For SI: 1 inch = 25.4 mm.

307.8.6 Accessible dwelling or sleeping units. Where Group I-1, I-2, I-3, R-1, or R-2 dwelling or sleeping units are being altered or added, the requirements of Section 1107 of the *International Building Code* for Accessible units apply only to the quantity of spaces being altered or added.

307.8.7 Type A dwelling or sleeping units. Where more than 20 Group R-2 dwelling or sleeping units are being altered or added, the requirements of Section 1107 of the *International Building Code* for Type A units and Chapter 9 of the *International Building Code* for visible alarms apply only to the quantity of the spaces being altered or added.

[W] 307.8.8 Type B dwelling or sleeping units. Type B dwelling or sleeping units shall comply with the applicable requirements of Section 307.8.8.1.

Exception: When using the provisions of Chapter 9, Group I-1, I-2, R-2, or R-3 dwelling or sleeping units where the first *certificate of occupancy* was issued before March 15, 1991 are not required to provide Type B dwelling or sleeping units.

307.8.8.1 Type B dwelling or sleeping units. Where four or more Group I-1, I-2, R-1, R-2, or R-3 dwelling or sleeping units are being added, the requirements of Section 1107

of the *International Building Code* for Type B units and Chapter 9 of the *International Building Code* for visible alarms apply only to the quantity of the spaces being added. Where Group I-1, I-2, R-1, R-2, or R-3 dwelling or sleeping units are being altered and where the work area is greater than 50 percent of the aggregate area of the building, the requirements of Section 1107 of the *International Building Code* for Type B units apply only to the quantity of the spaces being altered.

307.8.9 Dining areas. An accessible route to raised or sunken dining areas or to outdoor seating areas is not required for projects using the work area compliance method provided that the same services and decor are provided in an accessible space usable by any occupant and not restricted to use by people with a disability.

307.8.10 Jury boxes and witness stands. In *alterations*, accessible wheelchair spaces are not required to be located within the defined area of raised jury boxes or witness stands and shall be permitted to be located outside these spaces where the ramp or lift access poses a hazard by restricting or projecting into a required means of egress.

307.8.11 Toilet rooms. Where it is *technically infeasible* to alter existing toilet and bathing rooms to be accessible, an accessible family or assisted-use toilet or bathing room constructed in accordance with Section 1109.2.1 of the *International Building Code* is permitted. The family or assisted-use toilet or bathing room shall be located on the same floor and in the same area as the existing toilet or bathing rooms. The number of toilet facilities and water closets required by the *International Building Code* is permitted to be reduced by one, in order to provide accessible features. At the inaccessible toilet and bathing rooms, provide directional signs indicating the location of the nearest family or assisted-use toilet room or bathing room. 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.

307.8.12 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.

307.8.13 Fuel dispensers. Operable parts of replacement fuel dispensers shall be permitted to be 54 inches (1370 mm) maximum, measuring from the surface of the vehicular way where fuel dispensers are installed on existing curbs.

307.8.14 Thresholds. The maximum height of thresholds at doorways shall be 3/4 inch (19.1 mm). Such thresholds shall have beveled edges on each side.

307.8.15 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 1110.4.8 of the *International Building Code.*

307.9 Landmarks. These provisions shall apply to *facilities* designated as landmark structures that undergo *alterations* or a *change of occupancy*, unless *technically infeasible*. Where compliance with the requirements for accessible routes, entrances or toilet rooms would threaten or destroy the historic significance of the *facility*, as determined by the *code official*, the alternative requirements of Sections 307.9.1 through 307.9.4 for that element shall be permitted.

Exception: Type B dwelling or sleeping units required by Section 1107 of the *International Building Code* are not required to be provided in *landmarks*.

307.9.1 Site arrival points. At least one accessible route from a site arrival point to an accessible entrance shall be provided.

307.9.2 Multilevel buildings and facilities. An accessible route from an accessible entrance to public spaces on the level of the accessible entrance shall be provided.

307.9.3 Entrances. At least one main entrance shall be accessible.

Exceptions:

1. If a main entrance cannot be made accessible, an accessible nonpublic entrance that is unlocked while the building is occupied shall be provided; or
2. If a main entrance cannot be made accessible, a locked accessible entrance with a notification system or remote monitoring shall be provided.

Signs complying with Section 1111 of the *International Building Code* shall be provided at the primary entrance and the accessible entrance.

307.9.4 Toilet and bathing facilities. Where toilet rooms are provided, at least one accessible family or assisted-use toilet room complying with Section 1109.2.1 of the *International Building Code* shall be provided.

SECTION 308

REROOFING

[BS] 308.1 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* and the *International Energy Conservation Code*.

Exception: Reroofing shall not be required to meet the minimum design slope requirement of one-quarter unit vertical in 12 units horizontal (2-percent slope) in Section 1507 of the *International Building Code* for roofs that provide positive roof drainage.

[BS] 308.2 Structural and construction loads. Where addition or replacement of roofing or replacement of equipment results in additional dead loads, structural components supporting the reroofing or equipment shall comply with Section 305.1.3.

Exception: 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 is permitted to be added without complying with Section 305.1.3.

[BS] 308.3 Recovering versus replacement. New roof coverings shall not be installed without first removing all existing layers of roof coverings down to the roof deck where any of the following conditions occur:

1. Where the existing roof or roof covering is water soaked or has deteriorated to the point that the existing roof or roof covering is not adequate as a base for additional roofing.
2. Where the existing roof covering is wood shake, slate, clay, cement or asbestos-cement tile.
3. Where the existing roof has two or more applications of any type of roof covering.

Exceptions:

1. Complete and separate roofing systems, such as standing-seam metal roof systems, that are designed to transmit the roof loads directly to the building's structural system and that do not rely on existing roofs and roof coverings for support, shall not require the removal of existing roof coverings.

2. Metal panel, metal shingle and concrete and clay tile roof coverings shall be permitted to be installed over existing wood shake roofs when applied in accordance with Section 308.4.

3. The application of a new protective coating over an existing spray polyurethane foam roofing system shall be permitted without tear-off of existing roof coverings.

4. Where the existing roof assembly includes an ice barrier membrane that is adhered to the roof deck, 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*.

[BS] 308.4 Roof recovering. Where the application of a new roof covering over wood shingle or shake roofs creates a combustible concealed space, the entire existing surface shall be covered with gypsum board, mineral fiber, glass fiber or other approved materials securely fastened in place.

[BS] 308.5 Reinstallation of materials. Existing slate, clay or cement tile shall be permitted for reinstallation, except that damaged, cracked or broken slate or tile shall not be reinstalled. Existing vent flashing, metal edgings, drain outlets, collars and metal counter flashings shall not be reinstalled where rusted, damaged or deteriorated. Aggregate surfacing materials shall not be reinstalled.

[BS] 308.6 Flashings. Flashings shall be reconstructed in accordance with approved manufacturer's installation instructions. Metal flashing to which bituminous materials are to be adhered shall be primed prior to installation.

SECTION 309

MOVED STRUCTURES

309.1 Nonresidential buildings or structures. Nonresidential buildings or structures moved into or within the city shall comply with standards adopted by the *code official*. The *code official* is authorized to require an inspection of the building before or after moving. The permit holder shall correct all deficiencies identified by the inspection. The *code official* is authorized to require that a bond or cash deposit in an amount sufficient to abate or demolish the building be posted prior to issuance of a permit. See Section 106 of the *International Building Code* for information required on plans. Any moved building that is not in complete compliance with standards for moved buildings within 18 months from the date of permit issuance and is found to be a public nuisance may be abated. Moved buildings and structures shall also comply with the *International Energy Conservation Code*.

309.2 Residential buildings or structures. Residential buildings or structures moved into or within the city are not required to comply with all of the requirements of this code if the original occupancy classification of the building or structure is not changed. Compliance with all of the requirements of this chapter will be required if the moved residential buildings or structures undergo substantial alteration. Work performed on new and existing foundations shall comply with all of the requirements of this code for new construction.

SECTION 310

FLOOD HAZARD AREAS

310.1 Flood hazard areas. Buildings and structures in flood hazard areas established in Section 1612.3 of the *International Building Code* shall comply with Sections 310.1.1 through 310.1.3.

When any combination of *repairs*, *alterations*, or *additions* constitute *substantial improvement*, the *existing building* and all *repairs*, *alterations*, and *additions* shall comply with Section 1612 of the *International Building Code*.

310.1.1 Repairs. Any *repair* that constitutes *substantial improvement* of the existing structure or buildings that have been substantially damaged, as defined in Section 202, 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 according to Section 1612 of the *International Building Code*.

Any *repairs* that do not constitute *substantial improvement* or *repair* of *substantial damage* of the existing structure, as defined in Section 202, are not required to comply with the flood design requirements for new construction according to Section 1612 of the *International Building Code*.

Exception: For a new foundation or replacement foundation, the foundation shall comply with Section 1612 of the *International Building Code.*

310.1.2 Alterations. A*lterations* 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 according to Section 1612 of the *International Building Code*.

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 according to Section 1612 of the *International Building Code*.

Exception: For a new foundation or replacement foundation, the foundation shall comply with Section 1612 of the International Building Code.

310.1.3 Additions. *Additions* shall comply with the flood design requirements for new construction according to Section 1612 of the *International Building Code*.

If the *addition* constitutes *substantial improvement*, the existing structure shall be brought into compliance with the requirements for new construction for flood design according to Section 1612 of the *International Building Code*.

Section 5. The following sections of Chapter 4 of the International Existing Building Code, 2015 Edition, are amended as follows:

CHAPTER 4

PRESCRIPTIVE COMPLIANCE METHOD

SECTION 401

GENERAL

401.1 Scope. The provisions of this chapter shall control the *alteration, ((~~repair,~~)) addition* and *change of occupancy* ((~~or relocation of~~)) *existing buildings* and structures ((~~, including *historic buildings* and structures as referenced in Section 301.1.1~~)).

Exception: Existing bleachers, grandstands and folding and telescopic seating shall comply with ICC 300.

401.1.1 Compliance with other methods. *Alterations*, ((~~*repairs,*~~)) *additions* and *changes of occupancy* to ((~~or relocation of,~~))*existing buildings* and structures shall comply with the provisions of this chapter or with one of the methods provided in Section 301.1.

Note: All *alterations*, *additions* and *changes of occupancy* are also required to comply with Chapter 3.

401.2 Building materials and systems. Building materials and systems shall comply with the requirements of this section.

401.2.1 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 ((~~building~~)) *code official* to be *unsafe* per Section ((~~115~~))101.14.

401.2.2 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~~)) nonstructural *alterations*, provided no hazard to life, health or property is created, and they do not adversely affect any structural member or the fire-resistance rating of any part of the building or structure. When approved by the *code official*, minor structural alterations necessary to maintain the structural stability of the building or structure are permitted to be made with the same material of which the building or structure is constructed. 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.

((~~**401.2.3 Existing seismic force-resisting systems.** Where the existing seismic force-resisting system is a type that can be designated ordinary, values of *R*, Ω_0 and *Cd* for the existing seismic force-resisting system shall be those specified by the *International Building Code* for an ordinary system unless it is demonstrated that the existing system will provide performance equivalent to that of a detailed, intermediate or special system.~~

~~**401.3 Dangerous conditions.** The building official shall have the authority to require the elimination of conditions deemed *dangerous*.~~)

SECTION 402

ADDITIONS

402.1 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 no less conforming to the provisions of the *International Building Code* than the *existing building* or structure was prior to the *addition*. An *existing building* together with its *additions* shall comply with the height and area provisions of Chapter 5 of the *International Building Code*.

Note: A significant addition to an existing building may be considered a substantial alteration in accordance with Section 304.

402.1.1 Fire walls. An existing nonconforming building to which an *addition* is made is permitted to exceed the height, number of stories and area specified for new buildings if a fire wall is provided, the *existing building* is not made more nonconforming, and the *addition* conforms to this code.

((~~**[BS] 402.2 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*, as applicable, 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.~~

~~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 *additions* that do not constitute *substantial improvement* of the existing structure are not required to comply with the flood design requirements for new construction.~~))

402.2 Structural. *Additions* to *existing buildings* shall comply with Section 305.3.

((**[BS] 402.3 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 gravity load of more than 5 percent shall be strengthened, supplemented, replaced or otherwise altered as needed to carry the increased gravity load required by the *International Building Code* for new structures. Any existing gravity load-carrying structural element whose gravity load-carrying capacity is decreased shall be considered an altered element subject to the requirements of Section 403.3. Any existing element that will form part of the lateral load path for any part of the *addition* shall be considered an existing lateral load-carrying structural element subject to the requirements of Section 402.4.

[BS] 402.3.1 Design live load. Where the *addition* 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*. If the approved live load is less than that required by Section 1607 of the *International Building Code*, the area designed for the nonconforming live load shall be posted with placards of approved design indicating the approved live load. Where the *addition* does result in increased design live load, the live load required by Section 1607 of the *International Building Code* shall be used.

[BS] 402.4 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 existing structure and its *addition* acting together as a single structure shall be shown to meet the requirements of Sections 1609 and 1613 of the *International Building Code*. For purposes of this section, compliance with ASCE 41, using a

~~Tier 3 procedure and the two-level performance objective in Table 301.1.4.1 for the applicable risk category, shall be deemed to meet the requirements of Section 1613.~~

~~**Exception:** Any existing lateral load-carrying structural element whose demand-capacity ratio with the *addition* considered is no 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.~~))

((~~402.5~~)) 402.3 Smoke alarms in existing portions of a building. Where an *addition* is made to a building or structure of a Group R or I-1 occupancy, the *existing building* shall be provided with smoke alarms in accordance with Section 1103.8 of the *International Fire Code*.

402.4 Addition of dwelling units. Automatic sprinkler systems are required when new dwelling units are added to buildings according to Items 1 through 5 below. This provision is permitted to be used to add one unit after October 29, 1990.

1. One unit is permitted to be added to a residential or commercial building without an automatic sprinkler system unless sprinklers are otherwise required by this section. If more than one unit is added, the new units shall be equipped with a sprinkler system.
2. In buildings that do not comply with the provisions of this code for number of stories, allowable area, height or type of construction before the unit is added, an automatic sprinkler system shall be provided in the new unit. The addition of the new unit shall not be allowed if it increases the nonconformity.

3. In buildings undergoing *substantial alteration*, an automatic sprinkler system shall be installed where required by this code for new construction.

4. One unit is permitted to be added to an existing duplex without an automatic sprinkler system where both of the following conditions are met:

4.1 The project is considered a *substantial alteration* only because of the change of occupancy; and

4.2 The building complies with the requirements for building height and number of stories for a Group R-2 occupancy.

5. Where one unit is added to an existing duplex, sprinklers are required in the new unit and not in the existing units where all of the following conditions are met:

5.1 The existing duplex does not comply with the requirements for building height and story count for a Group R-2 occupancy;

5.2 The project is considered a *substantial alteration* only because of the *change of occupancy*;

5.3 The new unit is constructed as an *addition* to the duplex;

5.4 The new unit is separated from the existing duplex by a fire wall; and

5.5 The *addition* by itself complies with the requirements for a Group R-2 occupancy.

SECTION 403

ALTERATIONS

403.1 General. Except as provided by Section 401.2 or this section, *alterations* to any building or structure shall comply with the requirements of the *International Building Code* for new construction. *Alterations* shall be such that the *existing building* or structure is no less

conforming to the provisions of the *International Building Code* than the *existing building* or structure was prior to the *alteration*.

Exceptions:

1. Subject to the approval of the *code official*, existing stairways shall not be required to comply with the requirements of Sections 1011.3 and 1011.5.2 of the *International Building Code* where the existing space and construction ((~~does~~))do not allow a reduction in pitch or slope.

2. Handrails otherwise required to comply with Section 1011.11 of the *International Building Code* shall not be required to comply with the requirements of Section 1014.6 of the *International Building Code* regarding full extension of the handrails where such extensions would be hazardous due to plan configuration.

3. Where changes to offices, outpatient clinics or medical offices occur on a multi-tenant floor that contains non-conforming corridors, new tenant walls associated with the tenant change need not meet the standards for one-hour corridor construction, unless the project is considered a *substantial alteration.*

4. Automatic sprinkler systems are required when new dwelling units are added to buildings according to Items 4.1 through 4.6 below. This exception is permitted to be used to add one unit after October 29, 1990.

4.1 One unit is permitted to be added to a residential or commercial building without an automatic sprinkler system unless sprinklers are otherwise required by this section. If more than one unit is added, the new units shall be equipped with a sprinkler system.

4.2 In buildings that do not comply with the provisions of this code for number of stories, allowable area, height or type of construction before the unit is added, an automatic

sprinkler system shall be provided in the new unit. The addition of the new unit shall not be allowed if it increases the nonconformity.

4.3 In buildings undergoing *substantial alteration*, an automatic sprinkler system shall be installed where required by this code for new construction.

4.4 One unit is permitted to be added to an existing duplex without an automatic sprinkler system where both of the following conditions are met:

4.4.1 The project is considered a *substantial alteration* only because of the *change of occupancy*; and

4.4.2 The building complies with the requirements for building height and number of stories for a Group R-2 occupancy.

4.5 Where one unit is added to an existing duplex, sprinklers are required in the new unit and not in the existing units where all of the following conditions are met:

4.5.1 The existing duplex does not comply with the requirements for building height and story count for a Group R-2 occupancy;

4.5.2 The project is considered a *substantial alteration* only because of the *change of occupancy*;

4.5.3 The new unit is constructed as an *addition* to the duplex;

4.5.4 The new unit is separated from the existing duplex by a fire wall; and

4.5.5 The addition by itself complies with the requirements for a Group R-2 occupancy.

4.6 A sprinkler system is not required when a Group U occupancy that is accessory to a Group R-3 occupancy is converted to a dwelling unit.

5. Ceilings in basements are permitted to project to within 6 feet 8 inches (2032 mm) of the finished floor, and beams, girders, ducts or other obstructions are permitted to project to within 6 feet 4 inches (1931 mm) of the finished floor.

6. Ceiling height in buildings in existence prior to October 17, 1979, shall be permitted to comply with rules promulgated by the code official.

((~~**[BS] 403.2 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*, 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 R322 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.~~))

403.2 Structural. *Alterations* to *existing buildings* and structures shall comply with Section 305.1.

((~~**[BS] 403.3 Existing structural elements carrying gravity load.** Any existing gravity load-carrying structural element for which an *alteration* causes an increase in design gravity load of more than 5 percent shall be strengthened, supplemented, replaced or otherwise altered as needed to carry the increased gravity load 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 loads required by the *International Building Code* for new structures.~~

~~**[BS] 403.3.1 Design live load.** Where the *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 *alteration*. If the approved live load is less than that required by Section 1607 of the *International Building Code*, the area designed for the nonconforming live load shall be posted with placards of approved design indicating the approved live load. Where the *alteration* does result in increased design live load, the live load required by Section 1607 of the *International Building Code* shall be used.~~

~~**[BS] 403.4 Existing structural elements carrying lateral load.** Except as permitted by Section 403.5, where the *alteration* increases design lateral loads in accordance with Section 1609 or 1613 of the *International Building Code*, or where the *alteration* results in a prohibited structural irregularity as defined in ASCE 7, or where the *alteration* decreases the capacity of any existing lateral load-carrying structural element, the structure of the altered building or structure shall be shown to meet the requirements of Sections 1609 and 1613 of the *International Building Code*. For purposes of this section, compliance with ASCE 41, using a Tier 3 procedure and the two-level performance objective in Table 301.1.4.1 for the applicable risk category, shall be deemed to meet the requirements of Section 1613 of the *International Building Code*.~~

~~**Exception:** Any existing lateral load-carrying structural element whose demand-capacity ratio with the *alteration* considered is no 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 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.~~

~~**[BS] 403.4.1 Seismic Design Category F.** Where the portion of the building undergoing the intended alteration exceeds 50 percent of the aggregate area of the building, and where the building is assigned to Seismic Design Category F, the structure of the altered building shall be shown to meet the earthquake design provisions of the *International Building Code*. For purposes of this section, the earthquake loads need not be taken greater than 75 percent of those prescribed in Section 1613 of the *International Building Code* for new buildings of similar occupancy, purpose and location. New structural members and connections required by this section shall comply with the detailing provisions of this code for new buildings of similar structure, purpose and location.~~

~~**[BS] 403.5 Bracing for unreinforced masonry parapets upon reroofing.** Where the intended alteration requires a permit for reroofing and involves removal of roofing materials from 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 include installation of parapet bracing to resist out-of-plane seismic forces, unless an evaluation demonstrates compliance of such items. For purposes of this section, design seismic forces need not be taken greater than 75 percent of those that would be required for the design of similar nonstructural components in new buildings of similar purpose and location.~~

~~**[BS] 403.6 Wall anchorage for unreinforced masonry walls in major alterations.** Where the portion of the building undergoing the intended alteration exceeds 50 percent of the aggregate area of the building, the building is assigned to Seismic Design Category C, D, E or F, and the~~

~~building's structural system includes unreinforced masonry walls, the alteration work shall include installation of wall anchors at the roof line to resist seismic forces, unless an evaluation demonstrates compliance of existing wall anchorage. For purposes of this section, design seismic forces need not be taken greater than 75 percent of those that would be required for the design of new buildings of similar structure, purpose and location.~~

~~**[BS] 403.7 Bracing for unreinforced masonry parapets in major alterations.** Where the portion of the building undergoing the intended alteration exceeds 50 percent of the aggregate area of the building, and where the building is assigned to Seismic Design Category C, D, E or F, parapets constructed of unreinforced masonry shall have bracing installed as needed to resist out-of-plane seismic forces, unless an evaluation demonstrates compliance of such items. For purposes of this section, design seismic forces need not be taken greater than 75 percent of those that would be required for the design of similar nonstructural components in new buildings of similar purpose and location.~~

~~**[BS] 403.8 Roof diaphragms resisting wind 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 of a building located where the ultimate design wind speed is greater than 115 mph (51 m/s) in accordance with Figure 1609.3(1) of the *International Building Code* or in a special wind region as defined in Section 1609 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 Section 1609 of the *International Building Code*, including wind uplift. If the diaphragms and connections in their current condition are not capable of resisting at least 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*.~~

~~**[BS] 403.9 Voluntary seismic improvements.** *Alterations* to existing structural elements or *additions* of new structural elements that are not otherwise required by this chapter and are initiated for the purpose of improving the performance of the seismic force-resisting system of an existing structure or the performance of seismic bracing or anchorage of existing nonstructural elements shall be permitted, provided that an engineering analysis is submitted demonstrating the following:~~

~~1. The altered structure and the altered nonstructural elements are no less conforming to the provisions of the *International Building Code* with respect to earthquake design than they were prior to the *alteration*.~~

~~2. New structural elements are detailed as required for new construction.~~

~~3. New or relocated nonstructural elements are detailed and connected to existing or new structural elements as required 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.~~))

((~~403.10~~)) 403.3 Smoke alarms. Individual sleeping units and individual dwelling units in Group R and I-1 occupancies shall be provided with smoke alarms in accordance with Section 1103.8 of the *International Fire Code*.

((~~403.11~~)) 403.4 Refuge areas. Where *alterations* affect the configuration of an area utilized as a refuge area, the capacity of the refuge area shall not be reduced below that required in Sections ((~~403.11.1~~)) 403.4.1 through ((~~403.11.3~~)) 403.4.3.

((~~403.11.1~~)) 403.4.1 Smoke compartments. In Group I-2 and I-3 occupancies, the required capacity of the refuge areas for smoke compartments in accordance with Sections 407.5.1 and 408.6.2 of the *International Building Code* shall be maintained.

((~~403.11.2~~)) 403.4.2 Ambulatory care. In ambulatory care facilities required to be separated by Section 422.2 of the *International Building Code*, the required capacity of the refuge areas for smoke compartments in accordance with Section 422.4 of the *International Building Code* shall be maintained.

((~~403.11.3~~)) 403.4.3 Horizontal exits. The required capacity of the refuge area for horizontal exits in accordance with Section 1026.4 of the *International Building Code* shall be maintained.

SECTION 404

REPAIRS

404.1 General. Buildings and structures, and parts thereof, shall be *repaired* in compliance with Section 303. ((~~Sections 401.2 and 404. 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 the requirements for *alterations* in this chapter. Routine maintenance required by Section 401.2, ordinary repairs exempt from permit in accordance with Section 105.2, and abatement of wear due to normal service conditions shall not be subject to the requirements for repairs in this section.~~

~~[BS] 404.2 Substantial structural damage to vertical elements of the lateral force-resisting system.~~ ~~A building that has sustained *substantial structural damage* to the vertical elements of its lateral force-resisting system shall be evaluated and repaired in accordance with the applicable provisions of Sections 404.2.1 through 404.2.3.~~

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 rehabilitated for load combinations that include earthquake effects.

2. One- and two-family dwellings need not be evaluated or rehabilitated for load combinations that include earthquake effects.

[BS] 404.2.1 Evaluation. The building shall be evaluated by a *registered design professional*, and the evaluation findings shall be submitted to the *building official*. The evaluation shall establish whether the damaged building, if repaired to its predamage state, would comply with the provisions of the *International Building Code* for wind and earthquake loads.

Wind loads for this evaluation shall be those prescribed in Section 1609 of the *International Building Code*. Earthquake loads for this evaluation, if required, shall be permitted to be 75 percent of those prescribed in Section 1613 of the *International Building Code*. Alternatively, compliance with ASCE 41, using the performance objective in Table 301.1.4.2 for the applicable risk category, shall be deemed to meet the earthquake evaluation requirement.

[BS] 404.2.2 Extent of repair for compliant buildings. If the evaluation establishes compliance of the predamage building in accordance with Section 404.2.1, then repairs shall be permitted that restore the building to its predamage state.

[BS] 404.2.3 Extent of repair for noncompliant buildings. If the evaluation does not establish compliance of the predamage building in accordance with Section 404.2.1, then the building shall be rehabilitated to comply with applicable provisions of the *International*

~~*Building Code* for load combinations that include wind or seismic loads. The wind loads for the repair shall be as required by the building code in effect at the time of original construction, unless the damage was caused by wind, in which case the wind loads shall be as required by the *International Building Code*. Earthquake loads for this rehabilitation design shall be those required for the design of the predamage building, but not less than 75 percent of those prescribed in Section 1613 of the *International Building Code*. New structural members and connections required by this rehabilitation design shall comply with the detailing provisions of the *International Building Code* for new buildings of similar structure, purpose and location. Alternatively, compliance with ASCE 41, using the performance objective in Table 301.1.4.2 for the applicable risk category, shall be deemed to meet the earthquake rehabilitation requirement.~~

~~[BS] 404.3 Substantial structural damage to gravity load-carrying components.~~ ~~Gravity load-carrying components that have sustained *substantial structural damage* shall be rehabilitated to comply with the applicable provisions of the *International Building Code* for dead and live loads. Snow loads shall be considered if the substantial structural damage was caused by or related to snow load effects. Existing gravity load-carrying structural elements shall be permitted to be designed for live loads approved prior to the damage. If the approved live load is less than that required by Section 1607 of the *International Building Code*, the area designed for the nonconforming live load shall be posted with placards of *approved* design indicating the *approved* live load. Nondamaged gravity load-carrying components that receive dead, live or snow loads from rehabilitated components shall also be rehabilitated or shown to have the capacity to carry the design loads of the *rehabilitation* design. New structural members and~~

~~connections required by this rehabilitation design shall comply with the detailing provisions of the *International Building Code* for new buildings of similar structure, purpose and location.~~

~~**[BS] 404.3.1 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 earthquake effects, then the building shall be evaluated in accordance with Section 404.2.1 and, if noncompliant, rehabilitated in accordance with Section 404.2.3.~~

~~**Exceptions:**~~

~~1. One- and two-family dwellings need not be evaluated or rehabilitated for load combinations that include earthquake effects.~~

~~2. Buildings assigned to Seismic Design Category A, B or C whose substantial structural damage was not caused by earthquake need not be evaluated or rehabilitated for load combinations that include earthquake effects.~~

~~**[BS] 404.4 Less than substantial structural damage.** For damage less than *substantial structural damage*, repairs shall be allowed that restore the building to its predamage state. New structural members and connections used for this *repair* shall comply with the detailing provisions of the *International Building Code* for new buildings of similar structure, purpose and location.~~

~~**[BS] 404.5 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*, as applicable, any repair that constitutes *substantial improvement* or repair of *substantial damage* 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 R322 of the *International Residential Code*, as applicable, any repairs that do not constitute *substantial improvement* or repair of *substantial damage* of the existing structure are not required to comply with the flood design requirements for new construction.~~))

SECTION 405

FIRE ESCAPES

405.1 Where permitted. Fire escapes that are altered shall comply with this section ((~~be permitted only as provided for in Sections 405.1.1 through 405.1.2~~)).

((**~~405.1.1 New buildings.~~** ~~Fire escapes shall not constitute any part of the required means of egress in new buildings.~~

~~405.1.2 Existing fire escapes.~~)) Existing fire escapes shall continue to be accepted as a component in the means of egress in *existing buildings* only.

((**~~405.1.3 New fire escapes.~~** ~~New fire escapes for *existing buildings* shall be permitted only where exterior stairways cannot be utilized due to lot lines limiting stairway size or due to the sidewalks, alleys or roads at grade level. New fire escapes shall not incorporate ladders or access by windows.~~

~~405.1.4 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.~~))

405.2 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~~)) 8 feet ((~~(2134 mm)~~)) (2438 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).

405.3 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.~~))

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406.3 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, replacement windows shall be exempt from the requirements of Sections 1030.2, 1030.3 and 1030.5 of the *International Building Code* provided 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. The replacement of the window is not part of a change of occupancy.

SECTION 407

CHANGE OF OCCUPANCY

407.1 Conformance. No *change* *of occupancy* shall be made in ((~~the use or occupancy of~~)) any building or portion thereof unless such building is made to comply with the requirements of the *International Building Code* for the use or occupancy. *Changes* ((~~in use or~~)) *of occupancy* in a building or portion thereof shall be such that the *existing building* is no less complying with the provisions of ((~~this code~~)) the *International Building Code* than the *existing building* or structure was prior to the change. Subject to the approval of the ((~~building~~)) *code official*, ((~~the use or~~)) changes of occupancy ((~~of *existing buildings*~~)) shall be permitted ((~~to be changed and the building is allowed to be occupied for purposes in other groups~~)) without conforming to all of the requirements of this code for ((~~those groups~~)) the new occupancy, provided the new or proposed use is ((~~less~~)) no more hazardous, based on life and fire risk, than the existing use.

Note: Conditions arising after the adoption of this code, and conditions not legally in existence at the time of adoption of this code may trigger requirements based on *International Fire Code* Section 102.1, including building upgrades.

Exceptions:

1. The building need not be made to comply with the seismic requirements for a new structure unless required by Section ((~~407.4~~)) 305.2.
2. Subject to the approval of the *code official*, an automatic sprinkler system is not required in dwelling units according to Items 2.1 through 2.6 below. This exception is permitted to be used for the change in occupancy for one dwelling unit after October 29, 1990.

2.1 The occupancy of one unit is permitted to be changed to a dwelling unit without an automatic sprinkler system unless sprinklers are otherwise required by this chapter. If more than one unit is changed, the new units shall be equipped with a sprinkler system.

2.2 In buildings that do not comply with the provisions of this code for number of stories, allowable area, height or type of construction before the occupancy of the unit is changed, an automatic sprinkler system shall be provided in the new unit. The *change of occupancy* shall not be allowed if it increases the nonconformity.

2.3 In buildings undergoing *substantial alteration*, an automatic sprinkler system shall be installed where required by this code for new construction.

2.4 The occupancy of one unit is permitted to be changed to a dwelling unit in an existing duplex without an automatic sprinkler system where both of the following conditions are met:

2.4.1 The project is considered a *substantial alteration* only because of the *change of occupancy*; and

2.4.2 The building complies with the requirements for building height and number of stories for a Group R-2 occupancy.

2.5 Where the occupancy of one unit is changed to a dwelling unit in an existing duplex, sprinklers are required in the new unit and not in the existing units where all of the following conditions are met:

2.5.1 The existing duplex does not comply with the requirements for building height and story count for a Group R-2 occupancy;

2.5.2 The project is considered a *substantial alteration* only because of the *change of occupancy*;

2.5.3 The new unit is constructed as an *addition* to the duplex;

2.5.4 The new unit is separated from the existing duplex by a fire wall; and

2.5.5 The addition by itself complies with the requirements for a Group R-2 occupancy.

2.6 A sprinkler system is not required when a Group U occupancy that is accessory to a Group R-3 occupancy is converted to a dwelling unit.

407.1.1 Change in the ((~~character of~~)) group or use. A change in occupancy with no *change of occupancy* classification shall not be made to any structure that will subject the structure to any special provisions of the applicable *International Codes*, without approval of the ((~~*building*~~)) *code official*. Compliance shall be only as necessary to meet the specific provisions and is not intended to require the entire building be brought into compliance.

Note: The following illustrate how *change of occupancy* is interpreted:

- Change in classification is a change in the letter designation. An example is a change from B occupancy to R occupancy.
- Change in occupancy group is change in the number designation within an occupancy classification. An example is a change from group R-1 occupancy to R-2 occupancy.
- Change of use is a change in the subcategory within the occupancy group. An example is a change from R-2 apartment to R-2 boarding house.

407.2 Conversion to residential occupancy. Upon conversion of an *existing building*, or portion thereof, to residential occupancy, *International Building Code* Sections 420, 1203 and 2902 shall apply, and the elements of the dwelling unit envelope that are altered shall comply with the sound transmission control requirements of *International Building Code* Section 1207. ((**407.2 Certificate of occupancy.** A certificate of occupancy shall be issued where it has been determined that the requirements for the new occupancy classification have been met.))

407.3 Stairways. Subject to the approval of the *code official*, existing stairways shall not be required to comply with the requirements of Sections 1011.3 and 1011.5.2 of the *International Building Code* where the existing space and construction does not allow a reduction in pitch or slope.

[BS] 407.4 Structural. When a *change of occupancy* results in a structure being reclassified to a higher risk category, the structure shall comply with Section 305.2. ((conform to the seismic requirements for a new structure of the higher risk category. For purposes of this section, compliance with ASCE 41, using a Tier 3 procedure and the two-level performance objective in Table 301.1.4.1 for the applicable risk category, shall be deemed to meet the requirements of Section 1613 of the *International Building Code.*

Exceptions:

1. Specific seismic detailing requirements of Section 1613 of the *International Building Code* for a new structure shall not be required to be met where the seismic performance is shown to be equivalent to that of a new structure. A demonstration of equivalence shall consider the regularity, overstrength, redundancy and ductility of the structure.

~~2. When a change of use results in a structure being reclassified from Risk Category I or II to Risk Category III and the structure is located where the seismic coefficient, SDS, is less than 0.33, compliance with the seismic requirements of Section 1613 of the *International Building Code* is not required.~~))

407.5 Substantial alterations. *Changes of occupancy* that are *substantial alterations* shall comply with Section 304.

SECTION 408

((~~HISTORIC BUILDINGS~~)) LANDMARKS

408.1 ((~~Historic buildings~~)) Landmark Buildings. Landmark buildings shall comply with Section 306. ((~~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.~~

~~**408.2 Life safety hazards.** The provisions of this code shall apply to historic buildings judged by the building official to constitute a distinct life safety hazard.~~

~~**[BS] 408.3 Flood hazard areas.** Within flood *hazard areas* established in accordance with Section 1612.3 of the *International Building Code*, or Section R322 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 R322 of the *International Residential Code*, as applicable:~~

~~**Exception:** *Historic buildings* need not be brought into compliance that are:~~

~~1. Listed or preliminarily determined to be eligible for listing in the National Register of Historic Places;~~

~~2. Determined by the Secretary of the U.S. 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; or~~

~~3. Designated as historic under a state or local historic preservation program that is approved by the Department of Interior.~~))

SECTION 409

MOVED STRUCTURES

409.1 Conformance. Structures moved into or within the jurisdiction shall comply with the provisions of Section 309((~~the *International Building Code* for new structures~~)).

SECTION 410

ACCESSIBILITY FOR EXISTING BUILDINGS

410.1 Scope. ((~~The provisions of Sections 410.1 through 410.9 apply to maintenance,~~)) Maintenance, *change of occupancy*, *additions* and *alterations* to *existing buildings* ((~~, including those identified as *historic buildings*~~)) shall comply with Section 307.

((~~**410.2 Maintenance of facilities.** A *facility* that is constructed or altered to be *accessible* shall be maintained *accessible* during occupancy.~~

~~**410.3 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. *Alterations* shall not reduce or have the effect of reducing accessibility of a *facility* or portion of a *facility*.~~

~~**410.4 Change of occupancy.** *Existing buildings* that undergo a change of group or occupancy shall comply with this section.~~

~~**Exception:** Type B dwelling or sleeping units required by Section 1107 of the *International Building Code* are not required to be provided in *existing buildings* and facilities undergoing~~

~~a *change of occupancy* in conjunction with *alterations* where the *work area* is 50 percent or less of the aggregate area of the building.~~

~~**410.4.1 Partial change in occupancy.** Where a portion of the building is changed to a new occupancy classification, any *alterations* shall comply with Sections 410.6, 410.7 and 410.8.~~

~~**410.4.2 Complete change of occupancy.** Where an entire building undergoes a *change of occupancy*, it shall comply with Section 410.4.1 and shall have all of the following accessible features:~~

~~1. At least one accessible building entrance.~~

~~2. At least one accessible route from an accessible building entrance to *primary function* areas.~~

~~3. Signage complying with Section 1111 of the *International Building Code*.~~

~~4. Accessible parking, where parking is being provided.~~

~~5. At least one accessible passenger loading zone, when loading zones are provided.~~

~~6. At least one accessible route connecting accessible parking and accessible passenger loading zones to an accessible entrance.~~

~~Where it is *technically infeasible* to comply with the new construction standards for any of these requirements for a change of group or occupancy, the above items shall conform to the requirements to the maximum extent technically feasible.~~

~~**Exception:** The accessible features listed in Items 1 through 6 are not required for an accessible route to Type B units.~~

~~**410.5 Additions.** 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 410.7.~~

410.6 Alterations. A *facility* that is altered shall comply with the applicable provisions in Chapter 11 of the *International Building Code*, unless *technically infeasible*. Where compliance with this section is *technically infeasible*, the *alteration* shall provide access to the maximum extent technically feasible.

Exceptions:

1. The altered element or space is not required to be on an accessible route, unless required by Section 410.7.
2. Accessible means of egress required by Chapter 10 of the *International Building Code* are not required to be provided in existing facilities.
3. 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.
4. Type B dwelling or sleeping units required by Section 1107 of the *International Building Code* are not required to be provided in *existing buildings* and facilities undergoing a *change of occupancy* in conjunction with *alterations* where the *work area* is 50 percent or less of the aggregate area of the building.

410.7 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*. The accessible route to the *primary function* area shall include toilet facilities and drinking fountains serving the area of *primary function*.

Exceptions:

1. The costs of providing the *accessible* route 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.

410.8 Scoping for alterations. The provisions of Sections 410.8.1 through 410.8.14 shall apply to *alterations* to *existing buildings* and *facilities*.

410.8.1 Entrances. *Accessible* entrances shall be provided in accordance with Section 1105.

Exception: Where an *alteration* includes alterations to an entrance, and the *facility* has an *accessible* entrance, the altered entrance is not required to be *accessible*, unless required by Section 410.7. Signs complying with Section 1111 of the *International Building Code* shall be provided.

410.8.2 Elevators. Altered elements of existing elevators shall comply with ASME A17.1 and ICC A117.1. Such elements shall also be altered in elevators programmed to respond to the same hall call control as the altered elevator.

410.8.3 Platform lifts. Platform (wheelchair) lifts complying with ICC A117.1 and installed in accordance with ASME A18.1 shall be permitted as a component of an accessible route.

410.8.4 Stairways and escalators in existing buildings. In *alterations*, *change of occupancy* or *additions* where an escalator or stairway is added where none existed previously and major

~~structural modifications are necessary for installation, an accessible route shall be provided between the levels served by the escalator or stairways in accordance with Section 1104.4 of the *International Building Code.*~~

~~**410.8.5 Ramps.** Where slopes steeper than allowed by Section 1012.2 of the *International Building Code* are necessitated by space limitations, the slope of ramps in or providing access to existing facilities shall comply with Table 410.8.5.~~

~~**TABLE 410.8.5**~~

~~**RAMPS**~~

~~**SLOPE**~~	~~**MAXIMUM RISE**~~
~~Steeper than 1:10 but not steeper than 1:8~~	~~**3 inches**~~
~~Steeper than 1:12 but not steeper than 1:10~~	~~**6 inches**~~

~~For SI: 1 inch = 25.4 mm.~~

~~**410.8.6 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, the requirements of Section 1107 of the *International Building Code* for Accessible units apply only to the quantity of spaces being altered or added.~~

~~**410.8.7 Type A dwelling or sleeping units.** Where more than 20 Group R-2 dwelling or sleeping units are being altered or added, the requirements of Section 1107 of the *International Building Code* for Type A units apply only to the quantity of the spaces being altered or added.~~

~~**410.8.8 Type B dwelling or sleeping units.** Where four or more Group I-1, I-2, R-1, R-2, or R-3 ((or R-4)) dwelling or sleeping units are being added, the requirements of Section 1107 of the *International Building Code* for Type B units apply only to the quantity of the spaces being added. Where Group I-1, I-2, R-1, R-2, or R-3 ((or R-4)) dwelling or sleeping units are~~

~~being altered and where the work area is greater than 50 percent of the aggregate area of the building, the requirements of Section 1107 of the *International Building Code* for Type B units apply only to the quantity of the spaces being altered.~~

~~**410.8.9 Jury boxes and witness stands.** In *alterations*, accessible wheelchair spaces are not required to be located within the defined area of raised jury boxes or witness stands and shall be permitted to be located outside these spaces where the ramp or lift access restricts or projects into the means of egress.~~

~~**410.8.10 Toilet rooms.** Where it is *technically infeasible* to alter existing toilet and bathing rooms to be *accessible*, an *accessible* family or assisted-use toilet or bathing room constructed in accordance with Section 1109.2.1 of the *International Building Code* is permitted. The family or assisted-use toilet or bathing room shall be located on the same floor and in the same area as the existing toilet or bathing rooms.~~

~~At the inaccessible toilet and bathing rooms, provide directional signs indicating the location of the nearest family or assisted-use toilet room or bathing room. 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.~~

~~**410.8.11 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.~~

~~**410.8.12 Fuel dispensers.** Operable parts of replacement fuel dispensers shall be permitted to be 54 inches (1370 mm) maximum, measuring from the surface of the vehicular way where fuel dispensers are installed on existing curbs.~~

~~**410.8.13 Thresholds.** The maximum height of thresholds at doorways shall be 3/4 inch (19.1 mm). Such thresholds shall have beveled edges on each side.~~

~~**410.8.14 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 1110.4.8 of the *International Building Code*.~~

~~**410.9 Historic buildings.** These provisions shall apply to *facilities* designated as historic structures that undergo *alterations* or a *change of occupancy*, unless *technically infeasible*. Where compliance with the requirements for accessible routes, entrances or toilet rooms would threaten or destroy the historic significance of the *facility*, as determined by the applicable governing authority, the alternative requirements of Sections 410.9.1 through 410.9.4 for that element shall be permitted.~~

~~**Exception:** Type B dwelling or sleeping units required by Section 1107 of the *International Building Code* are not required to be provided in historical buildings.~~

~~**410.9.1 Site arrival points.** At least one accessible route from a site arrival point to an accessible entrance shall be provided.~~

~~**410.9.2 Multilevel buildings and facilities.** An accessible route from an accessible entrance to public spaces on the level of the accessible entrance shall be provided.~~

~~**410.9.3 Entrances.** At least one main entrance shall be accessible.~~

~~**Exceptions:**~~

~~1. If a main entrance cannot be made accessible, an accessible nonpublic entrance that is unlocked while the building is occupied shall be provided; or~~

~~2. If a main entrance cannot be made accessible, a locked accessible entrance with a notification system or remote monitoring shall be provided.~~

~~Signs complying with Section 1111 of the *International Building Code* shall be provided at the primary entrance and the accessible entrance.~~

~~**410.9.4 Toilet and bathing facilities.** Where toilet rooms are provided, at least one accessible family or assisted-use toilet room complying with Section 1109.2.1 of the *International Building Code* shall be provided.~~))

Section 6. The following sections of Chapter 5 of the International Existing Building Code, 2015 Edition, are amended as follows:

CHAPTER 5

CLASSIFICATION OF WORK

SECTION 501

GENERAL

501.1 Scope. The provisions of this chapter shall be used in conjunction with Chapters ((~~6~~)) 7 through ((~~13~~)) 11 and 13 and shall apply to the *alteration*, ((~~*repair*~~,)) *addition* and *change of occupancy* of *existing structures*((~~, including historic and moved structures, as referenced in Section 301.1.2~~)). The work performed on an *existing building* shall be classified in accordance with this chapter.

Note: All alterations, additions and changes of occupancy are required to comply with Chapter 3.

501.1.1 Compliance with other alternatives. *Alterations,* ((~~*repairs*~~)) *additions* and *changes of occupancy* to *existing structures* shall comply with the provisions of Chapters 3 and ((~~6~~)) 7 through ((~~13~~)) 11 or with one of the alternatives provided in Section 301.1.

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

SECTION 502

REPAIRS

502.1 ((**Scope.** ~~*Repairs*, as defined in Chapter 2, include the patching or restoration or replacement of damaged materials, elements, *equipment or fixtures* for the purpose of maintaining such components in good or sound condition with respect to existing loads or performance requirements.~~

~~**502.2**~~)) **Application.** *Repairs* shall comply with Section 303 ((~~the provisions of Chapter 6~~)).

((~~**502.3 Related work.** 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 the provisions of Chapter 7, 8, 9, 10 or 11.~~))

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SECTION 508

((~~**HISTORIC BUILDINGS**~~)) **LANDMARKS**

508.1 Scope. ((~~*Historic building* provisions~~)) *Landmarks* shall ((~~apply to buildings classified as historic as defined in Chapter 2~~)) comply with the provisions of Section 306.

((~~**508.2 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.~~))

SECTION 509

RELOCATED BUILDINGS

509.1 Scope. Relocated building provisions shall apply to relocated or moved buildings.

509.2 Application. Relocated buildings shall comply with the provisions of ((~~Chapter 13~~)) Section 309.

Section 7. The following sections of Chapter 7 of the International Existing Building Code, 2015 Edition, are amended as follows:

CHAPTER 7

ALTERATIONS – LEVEL 1

SECTION 701

GENERAL

701.1 Scope. Level 1 *alterations* as described in Section 503 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.~~))

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*.

((~~**[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 R322 of the *International Residential Code*, as applicable~~)).

SECTION 702

BUILDING ELEMENTS AND MATERIALS

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702.4 Window opening control devices. 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 complying with ASTM F 2090 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. The window replacement includes replacement of the sash and the frame;

((~~3. One of the following applies:~~))

3. ((~~3.1.~~)) In Group R-2 or R-3 buildings containing dwelling units, the top of the sill of the window opening is at a height less than 36 inches (915 mm) above the finished floor; ((~~or~~))

((~~3.2. In one- and two-family dwellings and townhouses regulated by the *International Residential Code*, the top sill 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; and

5. The vertical distance from the top of the sill 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).

The window opening control device, after operation to release the control device allowing the window to fully open, shall not reduce the minimum net clear opening area of the window unit to less than the area required by the *International Building Code*.

Exceptions:

1. Operable windows where the top of the sill 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 F 2006.
2. Operable windows with openings that are provided with window fall prevention devices that comply with ASTM F 2090.

702.5 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 Sections 1030.2, 1030.3 and 1030.5 of the *International Building Code* ((~~and Sections R310.2.1 and R310.2.3 of the *International Residential Code* accordingly~~)), provided 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.

Window opening control devices complying with ASTM F 2090 shall be permitted for use on windows required to provide *emergency escape* and *rescue openings*.

702.6 Materials and methods. All new work shall comply with the materials and methods requirements in the *International Building Code*, *International Energy Conservation Code*, *International Mechanical Code*, and ((~~*International*~~)) <u>*Uniform*</u> *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.

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SECTION 705

ACCESSIBILITY

705.1 General. A *facility* that is altered shall comply with the applicable provisions of Section 307 ((~~in Sections 705.1.1 through 705.1.14, and Chapter 11 of the *International Building Code* unless it is *technically infeasible*. Where compliance with this section is *technically infeasible*, the alteration shall provide access to the maximum extent that is technically feasible~~)).

~~A *facility* that is constructed or altered to be accessible shall be maintained accessible during occupancy.~~

~~**Exceptions:**~~

~~1. The altered element or space is not required to be on an accessible route unless required by Section 705.2.~~

~~2. Accessible means of egress required by Chapter 10 of the *International Building Code* are not required to be provided in existing *facilities*.~~

~~3. Type B dwelling or sleeping units required by Section 1107 of the *International Building Code* are not required to be provided in existing *facilities* undergoing less than a Level 3 *alteration*.~~

~~4. The alteration to Type A individually owned dwelling units within a Group R-2 occupancy shall meet the provisions for Type B dwelling units.~~

~~**705.1.1 Entrances.** Where an *alteration* includes alterations to an entrance, and the *facility* has an accessible entrance on an accessible route, the altered entrance is not required to be accessible unless required by Section 705.2. Signs complying with Section 1111 of the *International Building Code* shall be provided.~~

705.1.2 Elevators. Altered elements of existing elevators shall comply with ASME A17.1/CSA B44 and ICC A117.1. Such elements shall also be altered in elevators programmed to respond to the same hall call control as the altered elevator.

705.1.3 Platform lifts. Platform (wheelchair) lifts complying with ICC A117.1 and installed in accordance with ASME A18.1 shall be permitted as a component of an accessible route.

705.1.4 Ramps. Where steeper slopes than allowed by Section 1012.2 of the *International Building Code* are necessitated by space limitations, the slope of ramps in or providing access to existing facilities shall comply with Table 705.1.4.

TABLE 705.1.4

RAMPS

SLOPE	MAXIMUM RISE
Steeper than 1:10 but not steeper than 1:8	**3 inches**
Steeper than 1:12 but not steeper than 1:10	**6 inches**

For SI: 1 inch = 25.4 mm.

705.1.5 Dining areas. An accessible route to raised or sunken dining areas or to outdoor seating areas is not required provided that the same services and decor are provided in an accessible space usable by any occupant and not restricted to use by people with a disability.

705.1.6 Jury boxes and witness stands. In *alterations*, accessible wheelchair spaces are not required to be located within the defined area of raised jury boxes or witness stands and shall be permitted to be located outside these spaces where ramp or lift access poses a hazard by restricting or projecting into a required means of egress.

705.1.7 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, the requirements of Section 1107 of the

~~*International Building Code* for Accessible units apply only to the quantity of the spaces being altered.~~

~~**705.1.8 Type A dwelling or sleeping units.** Where more than 20 Group R-2 dwelling or sleeping units are being altered, the requirements of Section 1107 of the *International Building Code* for Type A units and Chapter 9 of the *International Building Code* for visible alarms apply only to the quantity of the spaces being altered.~~

~~**705.1.9 Toilet rooms.** Where it is technically infeasible to alter existing toilet and bathing rooms to be accessible, an accessible family or assisted-use toilet or bathing room constructed in accordance with Section 1109.2.1 of the *International Building Code* is permitted. The family or assisted-use toilet or bathing room shall be located on the same floor and in the same area as the existing toilet or bathing rooms. At the inaccessible toilet and bathing rooms, directional signs indicating the location of the nearest family or assisted-use toilet room or 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.~~

~~**705.1.10 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.~~

~~**705.1.11 Fuel dispensers.** Operable parts of replacement fuel dispensers shall be permitted to be 54 inches (1370 mm) maximum measured from the surface of the vehicular way where fuel dispensers are installed on existing curbs.~~

705.1.12 Thresholds. The maximum height of thresholds at doorways shall be 3/4 inch (19.1 mm). Such thresholds shall have beveled edges on each side.

705.1.13 Extent of application. An *alteration* of an existing element, space, or area of a *facility* shall not impose a requirement for greater accessibility than that which would be required for new construction. *Alterations* shall not reduce or have the effect of reducing accessibility of a *facility* or portion of a *facility*.

705.1.14 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 accordance with Section 1110.4.8 of the *International Building Code*.

705.2 Alterations affecting an area containing a primary function. Where an *alteration* affects the accessibility to a, or contains an area of, *primary function*, the route to the primary function area shall be accessible. The accessible route to the *primary function* area shall include toilet facilities and drinking fountains serving the area of *primary function*.

Exceptions:

1. The costs of providing the accessible route 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.))

((**SECTION 706**

REROOFING

[BS] 706.1 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*.

Exception: Reroofing shall not be required to meet the minimum design slope requirement of one-quarter unit vertical in 12 units horizontal (2-percent slope) in Section 1507 of the *International Building Code* for roofs that provide positive roof drainage.

[BS] 706.2 Structural and construction loads. Structural roof components shall be capable of supporting the roof-covering system and the material and equipment loads that will be encountered during installation of the system.

[BS] 706.3 Recovering versus replacement. New roof coverings shall not be installed without first removing all existing layers of roof coverings down to the roof deck where any of the following conditions occur:

1. Where the existing roof or roof covering is water soaked or has deteriorated to the point that the existing roof or roof covering is not adequate as a base for additional roofing.

2. Where the existing roof covering is wood shake, slate, clay, cement or asbestos-cement tile.

3. Where the existing roof has two or more applications of any type of roof covering.

~~Exceptions:~~

~~1. Complete and separate roofing systems, such as standing-seam metal roof systems, that are designed to transmit the roof loads directly to the building's structural system and that do not rely on existing roofs and roof coverings for support, shall not require the removal of existing roof coverings.~~

~~2. Metal panel, metal shingle and concrete and clay tile roof coverings shall be permitted to be installed over existing wood shake roofs when applied in accordance with Section 706.4.~~

~~3. The application of a new protective coating over an existing spray polyurethane foam roofing system shall be permitted without tear-off of existing roof coverings.~~

~~4. Where the existing roof assembly includes an ice barrier membrane that is adhered to the roof deck, 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*.~~

~~[BS] 706.4 Roof recovering.~~ ~~Where the application of a new roof covering over wood shingle or shake roofs creates a combustible concealed space, the entire existing surface shall be covered with gypsum board, mineral fiber, glass fiber or other approved materials securely fastened in place.~~

~~[BS] 706.5 Reinstallation of materials.~~ ~~Existing slate, clay or cement tile shall be permitted for reinstallation, except that damaged, cracked or broken slate or tile shall not be reinstalled. Existing vent flashing, metal edgings, drain outlets, collars and metal counter flashings shall not be reinstalled where rusted, damaged or deteriorated. Aggregate surfacing materials shall not be reinstalled.~~

~~**[BS] 706.6 Flashings.** Flashings shall be reconstructed in accordance with approved manufacturer's installation instructions. Metal flashing to which bituminous materials are to be adhered shall be primed prior to installation.~~))

SECTION 707

STRUCTURAL

[BS] 707.1 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, Section 305.1, and Section 308 shall apply.

((~~**[BS] 707.2 Addition or replacement of roofing or replacement of equipment.** Where addition or replacement of roofing or replacement of equipment results in additional dead loads, structural components supporting such reroofing or equipment shall comply with the gravity load requirements of the *International Building Code*.~~

~~**Exceptions:**~~

~~1. Structural elements where the additional dead load from the roofing or equipment does not increase the force in the element by more than 5 percent.~~

~~2. Buildings constructed in accordance with the ((*International Residential Code* or the))conventional light-frame construction methods of the *International Building Code* and where the dead load from the roofing or equipment is not increased by more than 5 percent.~~

~~3. 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] 707.3 Additional requirements for reroof permits**. The requirements of this section shall apply to *alteration* work requiring reroof permits.~~

[BS] 707.3.1 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 include installation of parapet bracing to resist the reduced *International Building Code* level seismic forces as specified in Section 301.1.4.2 of this code, unless an evaluation demonstrates compliance of such items.

[BS] 707.3.2 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 ultimate design wind speed, *Vult*, determined in accordance with Figure 1609.3(1) of the *International Building Code*, is greater than 115 mph (51 m/s) or in a special wind region, as defined in Section 1609 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 at least 75 percent of those wind loads, they shall be replaced or strengthened in accordance with the loads specified in the *International Building Code*.))

((**SECTION 708**

ENERGY CONSERVATION

708.1 Minimum requirements. Level 1 *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 8. The following sections of Chapter 8 of the International Existing Building Code, 2015 Edition, are amended as follows:

CHAPTER 8

ALTERATIONS – LEVEL 3

SECTION 801

GENERAL

801.1 Scope. Level 2 *alterations* as described in Section 504 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 ((~~705.2~~)) 307.7 shall be permitted to comply with Chapter 7.

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

801.3 Compliance. All new construction elements, components, systems, and spaces shall comply with the requirements of the *International Building Code*.

Exceptions:

1. Windows may be added without requiring compliance with the light and ventilation requirements of the *International Building Code*.

((~~2. Newly installed electrical equipment shall comply with the requirements of Section 808.~~))

2.((~~3.~~)) The length of dead-end corridors in newly constructed spaces shall only be required to comply with the provisions of Section 805.6.

3.((~~4.~~)) The minimum ceiling height of the newly created habitable and occupiable spaces and corridors shall be 7 feet (2134 mm).

4. Automatic sprinkler systems are required when new dwelling units are added to buildings according to Items 4.1 through 4.6 below. This exception is permitted to be used to add one unit after October 29, 1990.

4.1 One unit is permitted to be added to a residential or commercial building without an automatic sprinkler system unless sprinklers are otherwise required by this section. If more than one unit is added, the new units shall be equipped with a sprinkler system.

4.2 In buildings that do not comply with the provisions of this code for number of stories, allowable area, height or type of construction before the unit is added, an automatic sprinkler system shall be provided in the new unit. The addition of the new unit shall not be allowed if it increases the nonconformity.

4.3 In buildings undergoing *substantial alteration*, an automatic sprinkler system shall be installed where required by this code for new construction.

4.4 One unit is permitted to be added to an existing duplex without an automatic sprinkler system where both of the following conditions are met:

4.4.1 The project is considered a *substantial alteration* only because of the change in occupancy; and

4.4.2 The building complies with the requirements for building height and number of stories for a Group R-2 occupancy.

4.5 Where one unit is added to an existing duplex, sprinklers are required in the new unit and not in the existing units where all of the following conditions are met:

4.5.1 The existing duplex does not comply with the requirements for building height and story count for a Group R-2 occupancy;

4.5.2 The project is considered a *substantial alteration* only because of the change in occupancy;

4.5.3 The new unit is constructed as an addition to the duplex;

4.5.4 The new unit is separated from the existing duplex by a fire wall; and

4.5.5 The addition by itself complies with the requirements for a Group R-2 occupancy.

4.6 A sprinkler system is not required when a Group U occupancy that is accessory to a Group R-3 occupancy is converted to a dwelling unit.

5. Ceilings in basements are permitted to project to within 6 feet 8 inches (2032 mm) of the finished floor, and beams, girders, ducts or other obstructions are permitted to project to within 6 feet 4 inches (1931 mm) of the finished floor.

6. Ceiling height in buildings in existence prior to October 17, 1979, shall be permitted to comply with rules promulgated by the *code official*.

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SECTION 803

BUILDING ELEMENTS AND MATERIALS

803.1 Scope. The requirements of this section are limited to *work areas* in which Level 2 *alterations* are being performed and shall apply beyond the work area where specified.

803.2 Vertical openings. Existing vertical openings shall comply with the provisions of Sections 803.2.1, 803.2.2 and 803.2.3.

803.2.1 Existing vertical openings. All 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 may be assumed 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 at least 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 803.2.1, 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 when 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 at least 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 at least 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 803.2.1, 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~~)) 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 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:~~

~~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 at least one of the means of egress separated from the vertical opening by a 1-hour fire barrier; and~~

~~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 803.2.1, 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 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 804.4.~~))

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.

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SECTION 804

FIRE PROTECTION

804.1 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 on which the *work areas* are located or otherwise beyond the *work area*.

Exception: The fire *code official* may modify or waive the fire protection requirements for Level 2 *alteration* projects in which the fire protection requirements constitute an excessive burden.

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804.2.2 Groups A, B, E, F-1, H, I, 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, 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 all 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; and
2. The *work area* exceeds 50 percent of the floor area.

Exception: If the building does not have sufficient municipal water supply for design of a fire sprinkler system available to the floor without installation of a new fire pump, 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*.

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804.4.1 Occupancy requirements. A fire alarm system shall be installed in accordance with Sections 804.4.1.1 through ((~~804.4.1.7~~)) 804.4.1.6. 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 within the *work area* shall be provided and automatically activated.

Exceptions:

1. Occupancies with an existing, previously approved fire alarm system.

2. Where selective notification is permitted, alarm notification appliances shall be automatically activated in the areas selected.

804.4.1.1 Group E. A fire alarm system shall be installed in *work areas* of Group E occupancies as required by the *International Fire Code* for existing Group E occupancies.

804.4.1.2 Group I-1. A fire alarm system shall be installed in *work areas* of Group I-1 residential care/assisted living facilities as required by the *International Fire Code* for existing Group I-1 occupancies.

804.4.1.3 Group I-2. A fire alarm system shall be installed throughout Group I-2 occupancies as required by the *International Fire Code*.

804.4.1.4 Group I-3. A fire alarm system shall be installed in *work areas* of Group I-3 occupancies as required by the *International Fire Code*.

804.4.1.5 Group R-1. A fire alarm system shall be installed in Group R-1 occupancies as required by the *International Fire Code* for existing Group R-1 occupancies.

804.4.1.6 Group R-2. A fire alarm system shall be installed in *work areas* of Group R-2 apartment buildings as required by the *International Fire Code* for existing Group R-2 occupancies.

((~~**804.4.1.7 Group R-4.** A fire alarm system shall be installed in *work areas* of Group R-4 residential care/assisted living facilities as required by the *International Fire Code* for existing Group R-4 occupancies.~~))

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SECTION 805

MEANS OF EGRESS

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805.3 Number of exits. The number of exits shall be in accordance with Sections 805.3.1 through 805.3.3.

805.3.1 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 805.3.1.1 and 805.3.1.2.

805.3.1.1 Single-exit buildings. Only one exit is required from buildings and spaces of the following occupancies:

1. In Group A, B, E, F, M, U and S occupancies, a single exit is permitted in the story at the level of exit discharge when the occupant load of the story does not exceed 50 and the exit access travel distance does not exceed 75 feet (22 860 mm).

2. Group B, F-2, and S-2 occupancies not more than two stories in height that are not greater than 3,500 square feet per floor (326 m^2), when the exit access travel distance does not exceed 75 feet (22 860 mm). The minimum fire-resistance rating of the exit enclosure and of the opening protection shall be 1 hour.

3. Open parking structures where vehicles are mechanically parked.

((~~4. In Group R-4 occupancies, the maximum occupant load excluding staff is 16.~~))

4. ((~~5.~~)) Groups R-1 and R-2 not more than two stories in height, when there are not more than four dwelling units per floor and the exit access travel distance does not exceed 50 feet (15 240 mm). The minimum fire-resistance rating of the exit enclosure and of the opening protection shall be 1 hour.

Exception: The exit access travel distance shall not be more than 125 feet (38 100 mm) in buildings protected throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 of the *International Building Code*.

5. ((~~6.~~)) In multilevel dwelling units in buildings of occupancy Group R-1 or R-2, an exit shall not be required from every level of the dwelling unit provided that one of the following conditions is met:

5.1. ((~~6.1.~~)) The travel distance within the dwelling unit does not exceed 75 feet (22 860 mm); or

5.2. ((~~6.2.~~)) The building is not more than three stories in height and all third-floor space is part of one or more dwelling units located in part on the second floor; and no habitable room within any such dwelling unit shall have a travel distance that exceeds 50 feet (15 240 mm) from the outside of the habitable room entrance door to the inside of the entrance door to the dwelling unit.

6. ((~~7.~~)) In Group R-2, H-4, H-5 and I occupancies and in rooming houses and child care centers, a single exit is permitted in a one-story building with a maximum occupant load of 10 and the exit access travel distance does not exceed 75 feet (22 860 mm).

7. ((~~8.~~)) In buildings of Group R-2 occupancy that are equipped throughout with an automatic fire sprinkler system, a single exit shall be permitted from a basement or story below grade if every dwelling unit on that floor is equipped with an approved window providing a clear opening of at least 5 square feet (0.47 m2) in area, a minimum net clear opening of 24 inches (610 mm) in height and 20 inches (508 mm) in width, and a sill height of not more than 44 inches (1118 mm) above the finished floor.

8. ((~~9.~~)) In buildings of Group R-2 occupancy of any height with not more than four dwelling units per floor; with a smokeproof enclosure or outside stairway as an exit; and with such exit located within 20 feet (6096 mm) of travel to the entrance doors to all dwelling units served thereby.

9. ((~~10.~~)) In buildings of Group R-3 occupancy equipped throughout with an automatic fire sprinkler system, only one exit shall be required from basements or stories below grade.

10. In Group R-2 and R-3 occupancies, one means of egress is permitted within and from individual dwelling units with a maximum occupant load of 20 where the dwelling unit is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 of the *International Building Code*.

805.3.1.2 Fire escapes ((~~**required**~~)). Fire escapes that are altered shall comply with this section. Existing fire escapes shall continue to be accepted as a component in the means of egress in *existing buildings* only. ((~~For other than Group I-2, where more than one exit is required, an existing or newly constructed fire escape complying with Section 805.3.1.2.1 shall be accepted as providing one of the required means of egress.~~))

805.3.1.2.1 Location. Where located on the front of the building and where projecting beyond the building line, the lowest landing shall be not less than 8 feet (2438 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).((~~**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 m2) 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.~~))

805.3.1.2.2 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.~~))

805.3.1.2.3 Dimensions. Stairways shall be at least 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.

805.3.1.2.4 Opening protectives. Doors and windows along the fire escape shall be protected with 3/4-hour opening protectives.

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SECTION 806

ACCESSIBILITY

806.1 General. A building, *facility*, or element that is altered shall comply with ((~~this section and~~)) Section ((~~705~~)) 307.

((**~~806.2 Stairways and escalators in existing buildings.~~** ~~In *alterations* where an escalator or stairway is added where none existed previously, an accessible route shall be provided in accordance with Sections 1104.4 and 1104.5 of the *International Building Code*.~~))

SECTION 807

STRUCTURAL

[BS] 807.1 General. Structural elements and systems within buildings undergoing Level 2 *alterations* shall comply with ((~~this section~~)) Section 305.

((**~~[BS] 807.2 New structural elements.~~** ~~New structural elements in *alterations*, including connections and anchorage, shall comply with the *International Building Code*.~~

[BS] 807.3 Minimum design loads. The minimum design loads on existing elements of a structure that do not support additional loads as a result of an *alteration* shall be the loads applicable at the time the building was constructed.

[BS] 807.4 Existing structural elements carrying gravity loads. *Alterations* shall not reduce the capacity of existing gravity load-carrying structural elements unless it is demonstrated that the elements have the capacity to carry the applicable design gravity loads required by the *International Building Code*. Existing structural elements supporting any additional gravity loads as a result of the *alterations*, including the effects of snow drift, shall comply with the *International Building Code*.

Exceptions:

1. Structural elements whose stress is not increased by more than 5 percent.
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 its *alteration* comply with the conventional light-frame construction methods of the *International Building Code* or the provisions of the *International Residential Code*.

[BS] 807.5 Existing structural elements resisting lateral loads. Except as permitted by Section 807.6, 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 structure of the altered building or structure shall be shown to meet the wind and seismic provisions of the *International Building Code*. Reduced *International Building Code* level seismic forces in accordance with Section 301.1.4.2 shall be permitted.

Exception: 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 *International Building Code* Sections 1609 and 1613. Reduced *International Building Code* level seismic forces in accordance with Section 301.1.4.2 shall be permitted. 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.

[BS] 807.6 Voluntary lateral force-resisting system alterations. *Alterations* of existing structural elements and additions of new structural elements that are initiated for the purpose of increasing the lateral force-resisting strength or stiffness of an existing structure and that are not required by other sections of this code shall not be required to be designed for forces conforming to the *International Building Code*, provided that an engineering analysis is submitted to show that:

1. The capacity of existing structural elements required to resist forces is not reduced;
2. The lateral loading to existing structural elements is not increased either beyond its capacity or more than 10 percent;
3. New structural elements are detailed and connected to the existing structural elements as required by the *International Building Code*;
4. New or relocated nonstructural elements are detailed and connected to existing or new structural elements as required by the *International Building Code*; and

~~5. A *dangerous* condition as defined in this code is not created. Voluntary *alterations* to lateral force-resisting systems conducted in accordance with Appendix A and the referenced standards of this code shall be permitted.~~))

((~~**SECTION 808**~~

~~**ELECTRICAL**~~

~~**808.1 New installations.** All newly installed electrical equipment and wiring relating to work done in any work area shall comply with all applicable requirements of NFPA 70 except as provided for in Section 808.3.~~

~~**808.2 Existing installations.** Existing wiring in all work areas in Group A-1, A-2, A-5, H and I occupancies shall be upgraded to meet the materials and methods requirements of Chapter 7.~~

~~**808.3 Residential occupancies.** In Group R-2, R-3 and R-4 occupancies and buildings regulated by the *International Residential Code*, the requirements of Sections 808.3.1 through 808.3.7 shall be applicable only to work areas located within a dwelling unit.~~

~~**808.3.1 Enclosed areas.** All enclosed areas, other than closets, kitchens, basements, garages, hallways, laundry areas, utility areas, storage areas and bathrooms shall have a minimum of two duplex receptacle outlets or one duplex receptacle outlet and one ceiling or wall-type lighting outlet.~~

~~**808.3.2 Kitchens.** Kitchen areas shall have a minimum of two duplex receptacle outlets.~~

~~**808.3.3 Laundry areas.** Laundry areas shall have a minimum of one duplex receptacle outlet located near the laundry equipment and installed on an independent circuit.~~

~~**808.3.4 Ground fault circuit interruption.** Newly installed receptacle outlets shall be provided with ground fault circuit interruption as required by NFPA 70.~~

~~**808.3.5 Minimum lighting outlets.** At least one lighting outlet shall be provided in every bathroom, hallway, stairway, attached garage, and detached garage with electric power, and to illuminate outdoor entrances and exits.~~

~~**808.3.6 Utility rooms and basements.** At least one lighting outlet shall be provided in utility rooms and basements where such spaces are used for storage or contain equipment requiring service.~~

~~**808.3.7 Clearance for equipment.** Clearance for electrical service equipment shall be provided in accordance with the NFPA 70.~~))

SECTION 809

MECHANICAL

((~~**809.1**~~)) **808.1 Mechanical Systems.** Mechanical systems shall comply with the *International Mechanical Code*. ((~~**Reconfigured or converted spaces.** All reconfigured spaces intended for occupancy and all 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 809.2.~~

~~**809.2 Altered existing systems.** In mechanically ventilated spaces, existing mechanical ventilation systems that are altered, reconfigured, or extended shall provide not less than 5 cubic feet per minute (cfm) (0.0024 m^3/s) per person of outdoor air and not less than 15 cfm (0.0071 m3/s) of ventilation air per person; or not less than the amount of ventilation air determined by the Indoor Air Quality Procedure of ASHRAE 62.~~

~~**809.3 Local exhaust.** All 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.~~))

SECTION 810

PLUMBING

810.1 Minimum fixtures. 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*~~)) <u>*Building* *Code*</u> based on the increased occupant load.

((~~**SECTION 811**~~

~~ENERGY CONSERVATION~~

~~**811.1 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 9. The following sections of Chapter 9 of the International Existing Building Code, 2015 Edition, are amended as follows:

CHAPTER 9

ALTERATIONS-LEVEL 3

SECTION 901

GENERAL

901.1 Scope. Level 3 *alterations* as described in Section 505 shall comply with the requirements of this chapter.

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 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 ((~~705.2~~)) 307.7 shall not be required to comply with this chapter.

SECTION 902

SPECIAL USE AND OCCUPANCY

902.1 High-rise buildings. Any building having occupied floors 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. When a floor 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, at least 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 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.~~))

902.2 Boiler and furnace equipment rooms. Boiler and furnace equipment rooms adjacent to or within Groups I-1, I-2, I-4, R-1, and R-2 ((~~and R-4~~)) occupancies shall be enclosed by 1-hour fire-resistance-rated construction.

Exceptions:

1. Steam boiler equipment operating at pressures of 15 pounds per square inch gauge (psig) (103.4 KPa) or less is not required to be enclosed.
2. Hot water boilers operating at pressures of 170 psig (1171 KPa) or less are not required to be enclosed.
3. Furnace and boiler equipment with 400,000 British thermal units (Btu) (4.22 × 108 J) per hour input rating or less is not required to be enclosed.
4. Furnace rooms protected with an *automatic sprinkler system* are not required to be enclosed.

SECTION 903

BUILDING ELEMENTS AND MATERIALS

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903.2.1 Separation required. Where the *work area* is in any attached dwelling unit in Group R-3 or any multiple single-family dwelling (townhouse), walls separating the dwelling units that are not continuous from the foundation to the underside of the roof sheathing shall be constructed to provide a continuous fire separation using construction materials consistent with the existing wall or complying with the requirements for new structures. All work shall be performed on the side of the dwelling unit wall that is part of the *work area*.

Exception: Where *alterations* ((~~or *repairs*~~)) do not result in the removal of wall or ceiling finishes exposing the structure, walls are not required to be continuous through concealed floor spaces.

****

SECTION 906

ACCESSIBILITY

906.1 General. A building, *facility* or element that is altered shall comply with ((~~this section and Sections 705 and 806~~)) Section 307.

((~~**906.2 Type B dwelling or sleeping units.** Where four or more Group I-1, I-2, R-1, R-2, R-3 or R-4 dwelling or sleeping units are being altered, the requirements of Section 1107 of the *International Building Code* for Type B units and Chapter 9 of the *International Building Code* for visible alarms apply only to the quantity of the spaces being altered.~~

~~**Exception:** Group I-1, I-2, R-2, R-3 and R-4 dwelling or sleeping units where the first certificate of occupancy was issued before March 15, 1991 are not required to provide Type B dwelling or sleeping units.~~))

SECTION 907

STRUCTURAL

[BS] 907.1 General. Where buildings are undergoing Level 3 *alterations* including structural *alterations*, the provisions of ((~~this section~~)) Section 305 shall apply.

((~~**[BS] 907.2 New structural elements.** New structural elements shall comply with Section 807.2.~~

~~**[BS] 907.3 Existing structural elements carrying gravity loads.** Existing structural elements carrying gravity loads shall comply with Section 807.4.~~

[BS] 907.4 Existing structural elements resisting lateral loads. All existing elements of the lateral force-resisting system shall comply with this section.

Exceptions:

1. Buildings of Group R occupancy with no 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 such *alterations* involve only the lowest story of a building and the *change of occupancy* provisions of Chapter 10 do not apply, only the lateral force-resisting components in and below that story need comply with this section.

[BS] 907.4.1 Evaluation and analysis. An engineering evaluation and analysis that establishes the structural adequacy of the altered structure shall be prepared by a *registered design professional* and submitted to the *code official*.

[BS] 907.4.2 Substantial structural alteration. Where more than 30 percent of the total floor and roof areas of the building or structure have been or are proposed to be involved in structural *alteration* within a 5-year period, the evaluation and analysis shall demonstrate that the lateral load-resisting system of the altered building or structure complies with the *International Building Code* for wind loading and with reduced *International Building Code*-level seismic forces in accordance with Section 301.1.4.2. The areas to be counted toward the 30 percent shall be those areas tributary to the vertical load-carrying components, such as joists, beams, columns, walls and other structural components that have been or will be removed, added or altered, as well as areas such as mezzanines, penthouses, roof structures and in-filled courts and shafts.

~~**[BS] 907.4.3 Seismic Design Category F.** Where the building is assigned to Seismic Design Category F, the evaluation and analysis shall demonstrate that the lateral load-resisting system of the altered building or structure complies with reduced *International Building Code*-level seismic forces in accordance with Section 301.1.4.2 and with the wind provisions applicable to a limited structural alteration.~~

~~**[BS] 907.4.4 Limited structural alteration.** Where the work does not involve a substantial structural *alteration* and the building is not assigned to Seismic Design Category F, the existing elements of the lateral load-resisting system shall comply with Section 807.5.~~

~~**[BS] 907.4.5 Wall anchors for concrete and masonry buildings.** For any building assigned to Seismic Design Category D, E or F with a structural system consisting of concrete or reinforced masonry walls with a flexible roof diaphragm and any building assigned to Seismic Design Category C, D, E or F with a structural system consisting of unreinforced masonry walls with any type of roof diaphragm, the *alteration* work shall include installation of wall anchors at the roof line to resist the reduced *International Building Code*-level seismic forces in accordance with Section 301.1.4.2, unless an evaluation demonstrates compliance of existing wall anchorage.~~

~~**[BS] 907.4.6 Bracing for unreinforced masonry parapets.** Parapets constructed of unreinforced masonry in buildings assigned to Seismic Design Category C, D, E or F shall have bracing installed as needed to resist the reduced *International Building Code*-level seismic forces in accordance with Section 301.1.4.2, unless an evaluation demonstrates compliance of such items.~~))

((**~~SECTION 908~~**

~~ENERGY CONSERVATION~~

~~**908.1 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 10. The following sections of Chapter 10 of the International Existing Building Code, 2015 Edition, are amended as follows:

CHAPTER 10

CHANGE OF OCCUPANCY

SECTION 1001

GENERAL

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

Note: The following illustrate how change of occupancy is interpreted:

- Change in classification is a change in the letter designation. An example is a change from B occupancy to R occupancy.
- Change in occupancy group is change in the number designation within an occupancy classification. An example is a change from group R-1 occupancy to R-2 occupancy.
- Change of use is a change in the subcategory within the occupancy group. An example is a change from R-2 apartment to R-2 boarding house.

Note: Changes of occupancy that are substantial alterations as determined by Section 304.1.1 are required to comply with Section 304.

1001.2 ((~~Certificate~~)) Change 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 *International Building Code* 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.~~))

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SECTION 1002

SPECIAL USE AND OCCUPANCY

1002.1 Compliance with the building code. Where the ((~~character or~~)) use of an *existing building* or part of an *existing building* is changed to one of the following special use or occupancy categories as defined in the *International Building Code*, the building shall comply with all of the applicable requirements of the *International Building Code*:

1. Covered and open mall buildings.
2. Atriums.
3. Motor vehicle-related occupancies.
4. Aircraft-related occupancies.
5. Motion picture projection rooms.
6. Stages and platforms.
7. Special amusement buildings.

8. Incidental use areas.

9. Hazardous materials.

10. Ambulatory care facilities.

11. Group I-2 occupancies.

***

SECTION 1006

ACCESSIBILITY

1006.1 General. Accessibility in portions of buildings undergoing a *change of occupancy* classification shall comply with Section ((~~1012.8~~)) 307.4.

SECTION 1007

STRUCTURAL

1007.1 Structural. Buildings or portions thereof subject to a *change of occupancy* shall comply with Section 305.2. ((~~**[BS] 1007.1 Gravity loads.** Buildings or portions thereof subject to a *change of occupancy* where such change in the nature of occupancy results in higher uniform or concentrated loads based on Table 1607.1 of the *International Building Code* shall comply with the gravity load provisions of the *International Building Code*.~~

~~**Exception:** Structural elements whose stress is not increased by more than 5 percent.~~

~~**[BS] 1007.2 Snow and wind loads.** Buildings and structures subject to a *change of occupancy* where such change in the nature of occupancy results in higher wind or snow risk categories based on Table 1604.5 of the *International Building Code* shall be analyzed and shall comply with the applicable wind or snow load provisions of the *International Building Code*.~~

Exception: Where the new occupancy with a higher risk category is less than or equal to 10 percent of the total building floor area. The cumulative effect of the area of occupancy changes shall be considered for the purposes of this exception.

[BS] 1007.3 Seismic loads. *Existing buildings* with a *change of occupancy* shall comply with the seismic provisions of Sections 1007.3.1 and 1007.3.2.

[BS] 1007.3.1 Compliance with International Building Code-level seismic forces. Where a building or portion thereof is subject to a *change of occupancy* that results in the building being assigned to a higher risk category based on Table 1604.5 of the *International Building Code*, the building shall comply with the requirements for *International Building Code*-level seismic forces as specified in Section 301.1.4.1 for the new risk category.

Exceptions:

1. Where approved by the *code official*, specific detailing provisions required for a new structure are not required to be met where it can be shown that an equivalent level of performance and seismic safety is obtained for the applicable risk category based on the provision for reduced *International Building Code*-level seismic forces as specified in Section 301.1.4.2.
2. Where the area of the new occupancy with a higher hazard category is less than or equal to 10 percent of the total building floor area and the new occupancy is not classified as Risk Category IV. For the purposes of this exception, buildings occupied by two or more occupancies not included in the same risk category, shall be subject to the provisions of Section 1604.5.1 of the *International Building Code*. The cumulative effect of the area of occupancy changes shall be considered for the purposes of this exception.

3. Unreinforced masonry bearing wall buildings in Risk Category III when assigned to Seismic Design Category A or B shall be allowed to be strengthened to meet the requirements of Appendix Chapter A1 of this code [Guidelines for the Seismic Retrofit of Existing Buildings (GSREB)].

[BS] 1007.3.2 Access to Risk Category IV. Where a *change of occupancy* is such that compliance with Section 1007.3.1 is required and the building is assigned to Risk Category IV, the operational access to the building shall not be through an adjacent structure, unless that structure conforms to the requirements for Risk Category IV structures. Where operational access 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 by the owner of the Risk Category IV structure.))

((**SECTION 1008**

ELECTRICAL

1008.1 Special occupancies. Where the occupancy of an *existing building* or part of an *existing building* is changed 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 whether or not a *change of occupancy* group is involved:

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.~~

~~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.~~

~~**1008.2 Unsafe conditions.** Where the occupancy of an *existing building* or part of an *existing building* is changed, all unsafe conditions shall be corrected without requiring that all parts of the electrical system comply with NFPA 70.~~

~~**1008.3 Service upgrade.** Where the occupancy of an *existing building* or part of an *existing building* is changed, electrical service shall be upgraded to meet the requirements of NFPA 70 for the new occupancy.~~

~~**1008.4 Number of electrical outlets.** Where the occupancy of an *existing building* or part of an *existing building* is changed, the number of electrical outlets shall comply with NFPA 70 for the new occupancy.~~))

SECTION 1009

MECHANICAL

1009.1 Mechanical requirements. Mechanical equipment and systems shall comply with the *International Mechanical Code*. ((~~Where the occupancy of an *existing building* or part of an *existing building* is changed 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 1010

PLUMBING

1010.1 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 Building Code and Uniform Plumbing Code*, the new occupancy shall comply with ((~~the intent of~~)) the respective *International Building Code and Uniform Plumbing Code* provisions.

1010.2 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*~~)) *Uniform Plumbing Code.*

1010.3 Interceptor required. If the new occupancy will produce grease or oil-laden wastes, interceptors shall be provided as required in the ((~~*International*~~)) *Uniform Plumbing Code*.

1010.4 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. No chemical waste shall discharge to a public sewer system without the approval of the sewage authority.

1010.5 Group I-2. If the occupancy group is changed to Group I-2, the plumbing system shall comply with the applicable requirements of the ((~~*International*~~)) *Uniform Plumbing Code*.

SECTION 1011

OTHER REQUIREMENTS

1011.1 Light and ventilation. Light and ventilation shall comply with the requirements of the *International Building Code* and *International Mechanical Code* for the new occupancy.

SECTION 1012

CHANGE OF OCCUPANCY CLASSIFICATION

1012.1 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 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 *International Building Code*. Such buildings shall also comply with Sections 1002 through 1011. The application of requirements for the change of occupancy shall be as set forth in Sections 1012.1.1 through ((~~1012.1.4~~)) 1012.1.3. A *change of occupancy*, as defined in Section 202, without a corresponding change of occupancy classification shall comply with Section 1001.2.

1012.1.1 Compliance with Chapter 9. The requirements of Chapter 9 shall be applicable throughout the building for the new occupancy classification based on the separation conditions set forth in Sections 1012.1.1.1 and 1012.1.1.2. All existing buildings with a

change of occupancy classification shall comply with the seismic provisions of Section 305.2.

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((~~**1012.1.4 Accessibility.** All buildings undergoing a change of occupancy classification shall comply with Section 1012.8.~~))

1012.2 Fire protection systems. Fire protection systems shall be provided in accordance with Sections 1012.2.1 and 1012.2.2.

1012.2.1 Fire sprinkler 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 *International Building Code* that requires an automatic fire sprinkler system to be provided based on the new occupancy in accordance with Chapter 9 of the *International Building Code*, such system shall be provided throughout the area where the *change of occupancy* occurs.

Exception: Subject to the approval of the code official, an automatic fire sprinkler system is not required in dwelling units according to Items 1 through 6 below. This exception is permitted to be used for the change in occupancy for one dwelling unit after October 29, 1990.

1. The occupancy of one unit is permitted to be changed to a dwelling unit without an automatic sprinkler system unless sprinklers are otherwise required by this chapter. If more than one unit is changed, the new units shall be equipped with a sprinkler system.

2. In buildings that do not comply with the provisions of this code for number of stories, allowable area, height or type of construction before the occupancy of the

unit is changed, an automatic sprinkler system shall be provided in the new unit. The change of occupancy shall not be allowed if it increases the nonconformity.

3. In buildings undergoing *substantial alteration*, an automatic sprinkler system shall be installed where required by this code for new construction.

4. The occupancy of one unit is permitted to be changed to a dwelling unit in an existing duplex without an automatic sprinkler system where both of the following conditions are met:

4.1. The project is considered a *substantial alteration* only because of the change in occupancy; and

4.2. The building complies with the requirements for building height and number of stories for a Group R-2 occupancy.

5. Where the occupancy of one unit is changed to a dwelling unit in an existing duplex, sprinklers are required in the new unit and not in the existing units where all of the following conditions are met:

5.1. The existing duplex does not comply with the requirements for building height and story count for a Group R-2 occupancy;

5.2. The project is considered a *substantial alteration* only because of the change in occupancy;

5.3. The new unit is constructed as an addition to the duplex;

5.4. The new unit is separated from the existing duplex by a fire wall; and

5.5. The addition by itself complies with the requirements for a Group R-2 occupancy.

6. A sprinkler system is not required when a Group U occupancy that is accessory to a Group R-3 occupancy is converted to a dwelling unit.

***

1012.5.1 Height and area for change to higher hazard category. When a change of occupancy classification is made to a higher hazard category as shown in Table 1012.5, 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.

Exception: 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 Code.*

***

((~~**1012.8 Accessibility.** *Existing buildings* that undergo a change of group or occupancy classification shall comply with this section.~~

~~**Exception:** Type B dwelling or sleeping units required by Section 1107 of the *International Building Code* are not required to be provided in existing buildings and facilities undergoing a *change of occupancy* in conjunction with less than a Level 3 *alteration*.~~

~~**1012.8.1 Partial change in occupancy.** Where a portion of the building is changed to a new occupancy classification, any *alteration* shall comply with Sections 705, 806 and 906, as applicable.~~

~~**1012.8.2 Complete change of occupancy.** Where an entire building undergoes a *change of occupancy*, it shall comply with Section 1012.8.1 and shall have all of the following accessible features:~~

~~1. At least one accessible building entrance.~~

~~2. At least one accessible route from an accessible building entrance to *primary function* areas.~~

~~3. Signage complying with Section 1111 of the *International Building Code*.~~

~~4. Accessible parking, where parking is provided.~~

~~5. At least one accessible passenger loading zone, where loading zones are provided.~~

~~6. At least one accessible route connecting accessible parking and accessible passenger loading zones to an accessible entrance.~~

~~Where it is *technically infeasible* to comply with the new construction standards for any of these requirements for a change of group or occupancy, the above items shall conform to the requirements to the maximum extent technically feasible.~~

~~**Exception:** The accessible features listed in Items 1 through 6 are not required for an accessible route to Type B units.~~))

Section 11. The following sections of Chapter 11 of the International Existing Building Code, 2015 Edition, are amended as follows:

CHAPTER 11

ADDITIONS

SECTION 1101

GENERAL

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1101.3 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 5.

***

SECTION 1103

STRUCTURAL

1103.1 Structural. *Additions* to existing buildings or structures are new construction and shall comply with Section 305.3.

((~~**[BS] 1103.1 Compliance with the International Building Code.** *Additions to existing buildings* or structures are new construction and shall comply with the *International Building Code.*~~

~~**[BS] 1103.2 Additional gravity loads.** Existing structural elements supporting any additional gravity loads as a result of additions shall comply with the *International Building Code*.~~

~~**Exceptions:**~~

~~1. Structural elements whose stress is not increased by more than 5 percent.~~

~~2. Buildings of Group R occupancy with no more than five dwelling units 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*.~~

~~**[BS] 1103.3 Lateral force-resisting system.** The lateral force-resisting system of *existing buildings* to which additions are made shall comply with Sections 1103.3.1, 1103.3.2 and 1103.3.3.~~

~~**Exceptions:**~~

1. Buildings of Group R occupancy with no 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 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. For purposes of calculating demand-capacity ratios, the demand shall consider applicable load combinations involving *International Building Code* level seismic forces in accordance with Section 301.1.4.1.

[BS] 1103.3.1 Vertical addition. Any element of the lateral force-resisting system of an *existing building* subjected to an increase in vertical or lateral loads from the vertical *addition* shall comply with the *International Building Code* wind provisions and the *International Building Code* level seismic forces specified in Section 301.1.4.1 of this code.

[BS] 1103.3.2 Horizontal addition. Where horizontal *additions* are structurally connected to an existing structure, all lateral force-resisting elements of the existing structure affected by such *addition* shall comply with the *International Building Code* wind provisions and the IBC level seismic forces specified in Section 301.1.4.1 of this code.

[BS] 1103.3.3 Voluntary addition of structural elements to improve the lateral force-resisting system. Voluntary addition of structural elements to improve the lateral force-resisting system of an *existing building* shall comply with Section 807.6.

~~**[BS] 1103.4 Snow drift loads.** Any structural element of an *existing building* subjected to additional loads from the effects of snow drift as a result of an *addition* shall comply with the *International Building Code*.~~

~~**Exceptions:**~~

~~1. Structural elements whose stress is not increased by more than 5 percent.~~

~~2. Buildings of Group R occupancy with no more than five dwelling units 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*.~~))

[BS] 1103.5 Flood hazard areas. *Additions* and *foundations* in *flood hazard areas* shall comply with ((~~the following requirements~~)) Section 307.

((~~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 R322 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 R322 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 R322 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 R322 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 R322 of the *International Residential Code*, as applicable.~~

~~4. For a raised or extended foundation, if the foundation work and all other proposed work, when combined, constitute *substantial improvement*, the *existing building* shall comply with Section 1612 of the *International Building Code*, or Section R322 of the *International Residential Code*, as applicable.~~

~~5. For a new foundation or replacement foundation, the foundation shall comply with Section 1612 of the *International Building Code* or Section R322 of the *International Residential Code*, as applicable.~~))

SECTION 1104

SMOKE ALARMS IN OCCUPANCY GROUPS R AND I-1

1104.1 Smoke alarms in existing portions of a building. Where an *addition* is made to a building or structure of a Group R or I-1 occupancy, the *existing building* shall be provided with smoke alarms as required by Section 1103.8 of the *International Fire Code* ((~~or Section R314 of the *International Residential Code* as applicable~~)).

SECTION 1105

ACCESSIBILITY

1105.1 Minimum requirements. ((~~Accessibility provisions for new construction shall apply to additions.~~)) An addition that affects the accessibility to, or contains an area of, *primary function* shall comply with the requirements of Section 307 ((~~Sections 705, 806 and 906, as applicable~~)).

((~~**1105.2 Accessible dwelling units and sleeping units.** Where Group I-1, I-2, I-3, R-1, R-2 or R-4 dwelling or sleeping units are being added, the requirements of Section 1107 of the *International Building Code* for accessible units apply only to the quantity of spaces being added.~~

~~**1105.3 Type A dwelling or sleeping units.** Where more than 20 Group R-2 dwelling or sleeping units are being added, the requirements of Section 1107 of the *International Building Code* for Type A units and Chapter 9 of the *International Building Code* for visible alarms apply only to the quantity of the spaces being added.~~

~~**1105.4 Type B dwelling or sleeping units.** Where four or more Group I-1, I-2, R-1, R-2, R-3 or R-4 dwelling or sleeping units are being added, the requirements of Section 1107 of the *International Building Code* for Type B units and Chapter 9 of the *International Building Code* for visible alarms apply only to the quantity of spaces being added.~~))

((~~**SECTION 1106**~~

~~**ENERGY CONSERVATION**~~

~~**1106.1 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.~~))

SECTION 1107

ADDITION OF DWELLING UNITS

1106.1 Automatic sprinkler systems. Automatic sprinkler systems are required when new dwelling units are added to buildings according to Items 1 through 5 below. This provision is permitted to be used to add one unit after October 29, 1990.

1. One unit is permitted to be added to a residential or commercial building without an automatic sprinkler system unless sprinklers are otherwise required by this section. If more than one unit is added, the new units shall be equipped with a sprinkler system.

2. In buildings that do not comply with the provisions of this code for number of stories, allowable area, height or type of construction before the unit is added, an automatic sprinkler system shall be provided in the new unit. The addition of the new unit shall not be allowed if it increases the nonconformity.

3. In buildings undergoing *substantial alteration*, an automatic sprinkler system shall be installed where required by this code for new construction.

4. One unit is permitted to be added to an existing duplex without an automatic sprinkler system where both of the following conditions are met:

   4.1 The project is considered a *substantial alteration* only because of the change in occupancy; and

   4.2 The building complies with the requirements for building height and number of stories for a Group R-2 occupancy.

5. Where one unit is added to an existing duplex, sprinklers are required in the new unit and not in the existing units where all of the following conditions are met:

   5.1 The existing duplex does not comply with the requirements for building height and story count for a Group R-2 occupancy;

5.2 The project is considered a *substantial alteration* only because of the change in occupancy;

5.3 The new unit is constructed as an *addition* to the duplex;

5.4 The new unit is separated from the existing duplex by a fire wall; and

5.5 The *addition* by itself complies with the requirements for a Group R-2 occupancy.

1106.1.1 Fire walls. An existing nonconforming building to which an *addition* is made is permitted to exceed the height, number of stories and area specified for new buildings if a fire wall is provided, the existing building is not made more nonconforming, and the *addition* conforms to this code.

Section 12. The following sections of Chapter 14 of the International Existing Building Code, 2015 Edition, are amended as follows:

CHAPTER 14

PERFORMANCE COMPLIANCE METHOD

SECTION 1401

GENERAL

1401.1 Scope. The provisions of this chapter shall apply to the *alteration*, ((~~*repair,*~~)) *addition* and *change of occupancy* of *existing structures*, ((~~including historic and moved structures,~~)) as referenced in Section 301.1.3. The provisions of this chapter are intended to maintain or increase the current degree of public safety, health and general welfare in *existing buildings* and structures while permitting ((~~*repair,*~~)) *alteration*, *addition* and *change of occupancy* without requiring full compliance with Chapters 4, 5, and 7 through 11 ((~~13~~)), except where compliance with other provisions of this code is specifically required in this chapter. *Alterations*, *additions* and *changes of occupancy* shall also comply with Chapter 3.

1401.1.1 Compliance with other methods. *Alterations*, ((~~*repairs*,~~)) *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 301.1.

1401.2 Applicability. ((~~Structures existing prior to [**DATE TO BE INSERTED BY THE JURISDICTION. Note: it is recommended that this date coincide with the effective date of building codes within the jurisdiction**], in which there is work involving *additions*,~~)) Additions, *alterations* ((~~or~~)) and *changes of occupancy* shall be made to conform to the requirements of this chapter or the provisions of Chapter 4 or Chapters 5, and 7 through 11 ((~~13~~)). The provisions of Sections 1401.2.1 through ((~~1401.2.5~~)) 1401.2.4 shall apply to existing occupancies that will continue to be, or are proposed to be, in Groups A, B, E, F, I-2, M, R and S. These provisions shall not apply to buildings with occupancies in Group H or I-1, I-3 or I-4.

1401.2.1 Change in occupancy. Where an *existing building* is changed to a new occupancy classification and this section is applicable, the provisions of this section for the new occupancy shall be used to determine compliance with this code.

1401.2.2 Partial change in occupancy. Where a portion of the building is changed to a new occupancy classification and that portion is separated from the remainder of the building with fire barrier or horizontal assemblies having a fire-resistance rating as required by Table 508.4 of the *International Building Code* ((~~or Section R317 of the *International Residential Code*~~)) for the separate occupancies, or with approved compliance alternatives, the portion changed shall be made to conform to the provisions of this section.

Where a portion of the building is changed to a new occupancy classification and that portion is not separated from the remainder of the building with fire barriers or horizontal assemblies having a fire-resistance rating as required by Table 508.4 of the *International*

Building Code ((~~or Section R317 of the *International Residential Code*~~)) for the separate occupancies, or with approved compliance alternatives, the provisions of this section which apply to each occupancy shall apply to the entire building. Where there are conflicting provisions, those requirements which secure the greater public safety shall apply to the entire building or structure.

1401.2.3 Additions. *Additions* to *existing buildings* shall comply with the requirements of the *International Building Code* ((~~*, International Residential Code,*~~)) and this code for new construction. The combined height and area of the *existing building* and the new *addition* shall not exceed the height and area allowed by Chapter 5 of the *International Building Code*. Where a fire wall that complies with Section 706 of the *International Building Code* is provided between the *addition* and the *existing building*, the *addition* shall be considered a separate building.

1401.2.4 Alterations ((~~and *repairs*~~)). An *existing building* or portion thereof that does not comply with the requirements of this code for new construction shall not be altered ((~~or *repaired*~~)) in such a manner that results in the building being less safe or sanitary than such building is currently. If, in the *alteration* ((~~or *repair*~~)), the current level of safety or sanitation is to be reduced, the portion altered ((~~or repaired~~)) shall conform to the requirements of Chapters 2 through 12 and Chapters 14 through 33 of the *International Building Code*.

1401.2.5 Accessibility requirements. Accessibility shall be provided in accordance with Section ((~~410 or 605~~)) 307.

1401.3 Acceptance. For ((~~*repairs,*~~)) *alterations*, *additions*, and *changes of occupancy* to *existing buildings* that are evaluated in accordance with this section, compliance with this section shall be accepted by the *code official*.

1401.3.1 Hazards. Where the *code official* determines that an *unsafe* condition exists as provided for in Section ((~~115~~)) 101.14, such unsafe condition shall be abated in accordance with Section ((~~115~~)) 101.14.

1401.3.2 Compliance with other codes. Buildings that are evaluated in accordance with this section shall comply with Chapter 3 ((~~the *International Fire Code* and *International Property Maintenance Code*~~)).

((~~**1401.3.3 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 R322 of the *International Residential Code*, as applicable if the work covered by this section constitutes *substantial improvement*.~~))

1401.4 Investigation and evaluation. For proposed work covered by this chapter, the building owner shall cause the *existing building* to be investigated and evaluated in accordance with the provisions of Sections 1401.4 through 1401.9.

[BS] 1401.4.1 Structural ((~~**analysis.** The owner shall have a structural analysis of the *existing building* made to determine adequacy of structural systems for the proposed *alteration*, *addition* or *change of occupancy*. The analysis shall demonstrate that the building with the work completed is capable of resisting the loads specified in Chapter 16 of the *International Building Code*~~)) *Alterations, additions* and *changes of occupancy* to *existing structures* shall comply with Section 305.

1401.4.2 Submittal. The results of the investigation and evaluation as required in Section 1401.4, along with proposed compliance alternatives, shall be submitted to the *code official*.

1401.4.3 Determination of compliance. The *code official* shall determine whether the *existing building*, with the proposed *addition*, *alteration*, or *change of occupancy*, complies

with the provisions of this section in accordance with the evaluation process in Sections 1401.5 through 1401.9.

***

Section 13. The following sections of Chapter 15 of the International Existing Building Code, 2015 Edition, are amended as follows:

CHAPTER 15

CONSTRUCTION SAFEGUARDS

SECTION 1501

GENERAL

***

[BG] 1501.3 Alterations, repairs, and additions. Required exits, existing structural elements, fire protection devices, and sanitary safeguards shall be maintained at all times during *alterations*, *repairs*, or *additions* to any building or structure.

Exceptions:

1. When such required elements or devices are being altered or repaired, adequate substitute provisions shall be made.

2. Maintenance of such elements and devices is not required when ((~~When~~)) the *existing building* is not occupied.

***

[BS] 1501.6 Protection of pedestrians. The protection of the public and of the sidewalks, streets and other public property during construction or demolition shall be provided as required by the Street Use Ordinance, Seattle Municipal Code Title 15 ((~~Pedestrians shall be protected during~~

~~construction and demolition activities as required by Sections 1501.6.1 through 1501.6.7 and Table 1501.6. Signs shall be provided to direct pedestrian traffic~~)).

((**~~[BS] 1501.6.1 Walkways.~~** ~~A walkway shall be provided for pedestrian travel in front of every construction and demolition site unless the applicable governing authority authorizes the sidewalk to be fenced or closed. Walkways shall be of sufficient width to accommodate the pedestrian traffic, but in no case shall they be less than 4 feet (1219 mm) in width. Walkways shall be provided with a durable walking surface. Walkways shall be accessible in accordance with Chapter 11 of the *International Building Code* and shall be designed to support all imposed loads and in no case shall the design live load be less than 150 pounds per square foot (psf) (7.2 kN/m2).~~

~~[BS] 1501.6.2 Directional barricades.~~ ~~Pedestrian traffic shall be protected by a directional barricade where the walkway extends into the street. The directional barricade shall be of sufficient size and construction to direct vehicular traffic away from the pedestrian path.~~

~~[BS] 1501.6.3 Construction railings.~~ ~~Construction railings shall be at least 42 inches (1067 mm) in height and shall be sufficient to direct pedestrians around construction areas.~~

~~[BS] 1501.6.4 Barriers.~~ ~~Barriers shall be a minimum of 8 feet (2438 mm) in height and shall be placed on the side of the walkway nearest the construction. Barriers shall extend the entire length of the construction site. Openings in such barriers shall be protected by doors which are normally kept closed.~~

~~[BS] 1501.6.4.1 Barrier design.~~ ~~Barriers shall be designed to resist loads required in Chapter 16 of the *International Building Code* unless constructed as follows:~~

~~1. Barriers shall be provided with 2 × 4 top and bottom plates.~~

~~2. The barrier material shall be a minimum of ¾ inch (19.1 mm) boards or 1/4 inch (6.4 mm) wood structural use panels.~~

~~3. Wood structural use panels shall be bonded with an adhesive identical to that for exterior wood structural use panels.~~

~~4. Wood structural use panels 1/4 inch (6.4 mm) or 1/16 inch (1.6 mm) in thickness shall have studs spaced not more than 2 feet (610 mm) on center.~~

~~5. Wood structural use panels 3 /8 inch (9.5 mm) or 1 /2 inch (12.7 mm) in thickness shall have studs spaced not more than 4 feet (1219 mm) on center, provided a 2-inch by 4-inch (51 mm by 102 mm) stiffener is placed horizontally at the mid-height where the stud spacing exceeds 2 feet (610 mm) on center.~~

~~6. Wood structural use panels 5/8 inch (15.9 mm) or thicker shall not span over 8 feet (2438 mm).~~

~~[BS]TABLE 1501.6~~

~~PROTECTION OF PEDESTRIANS~~

~~HEIGHT OF CONSTRUCTION~~	~~DISTANCE OF CONSTRUCTION TO LOT LINE~~	~~TYPE OF PROTECTION REQUIRED~~
~~8 feet or less~~	~~Less than 5 feet~~	~~Construction railings~~
	~~5 feet or more~~	~~None~~
~~More than 8 feet~~	~~Less than 5 feet~~	~~Barrier and covered walkway~~
	~~5 feet or more, but not more than one-fourth the height of construction~~	~~Barrier and covered walkway~~

	~~5 feet or more, but between one-fourth and one-half the height of construction~~	~~Barrier~~	
	~~5 feet or more, but exceeding one-half the height of construction~~	~~None~~	

~~For SI: 1 foot = 304.8 mm.~~

~~**[BS] 1501.6.5 Covered walkways.** Covered walkways shall have a minimum clear height of 8 feet (2438 mm) as measured from the floor surface to the canopy overhead. Adequate lighting shall be provided at all times. Covered walkways shall be designed to support all imposed loads. In no case shall the design live load be less than 150 psf (7.2 kN/m2) for the entire structure.~~

~~**Exception:** Roofs and supporting structures of covered walkways for new, light-frame construction not exceeding two stories above grade plane are permitted to be designed for a live load of 75 psf (3.6 kN/m^2) or the loads imposed on them, whichever is greater. In lieu of such designs, the roof and supporting structure of a covered walkway are permitted to be constructed as follows:~~

~~1. Footings shall be continuous 2 × 6 members.~~

~~2. Posts not less than 4 × 6 shall be provided on both sides of the roof and spaced not more than 12 feet (3658 mm) on center.~~

~~3. Stringers not less than 4 × 12 shall be placed on edge upon the posts.~~

~~4. Joists resting on the stringers shall be at least 2 × 8 and shall be spaced not more than 2 feet (610 mm) on center.~~

~~5. The deck shall be planks at least 2 inches (51 mm) thick or wood structural panels with an exterior exposure durability classification at least 23/32 inch (18.3 mm) thick nailed to the joists.~~

~~6. Each post shall be knee-braced to joists and stringers by 2 × 4 minimum members 4 feet (1219 mm) long.~~

~~7. A 2 × 4 minimum curb shall be set on edge along the outside edge of the deck.~~

~~**[BS] 1501.6.6 Repair, maintenance and removal.** Pedestrian protection required by Section 1501.6 shall be maintained in place and kept in good order for the entire length of time pedestrians may be endangered. The owner or the owner's agent, upon the completion of the construction activity, shall immediately remove walkways, debris and other obstructions and leave such public property in as good a condition as it was before such work was commenced.~~

~~**[BS] 1501.6.7 Adjacent to excavations.** Every excavation on a site located 5 feet (1524 mm) or less from the street lot line shall be enclosed with a barrier not less than 6 feet (1829 mm) high. Where located more than 5 feet (1524 mm) from the street lot line, a barrier shall be erected when required by the *code official*. Barriers shall be of adequate strength to resist wind pressure as specified in Chapter 16 of the *International Building Code*.~~))

1501.7 Facilities required. Sanitary facilities shall be provided during construction or demolition activities in accordance with the ((~~*International*~~)) *Uniform Plumbing Code*.

SECTION 1502

PROTECTION OF ADJOINING PROPERTY

[BS] 1502.1 Protection required. Adjoining public and private property shall be protected from damage during construction and demolition work. Protection must be provided for footings, foundations, party walls, chimneys, skylights and roofs. Provisions shall be made to control water runoff and erosion during construction or demolition activities. ((~~The person making or causing an excavation to be made shall provide written notice to the owners of adjoining~~

~~buildings advising them that the excavation is to be made and that the adjoining buildings should be protected. Said notification shall be delivered not less than 10 days prior to the scheduled starting date of the excavation~~)) When the existing grade of a site is altered by filling, excavating, dredging or moving of earth materials, the owner shall protect all adjoining property during construction from encroachment or collapse by sloping the sides of the temporary grading at a slope that is safe and not more than one horizontal to one vertical. In addition, adjoining property shall be protected from encroachment or collapse by sloping the sides of the permanent grading at a slope not greater than two horizontal to one vertical. The *code official* is authorized to approve temporary or permanent slopes that are steeper based on a design by an experienced geotechnical engineer.

In areas of known unsuitable soils, the *code official* is authorized to require slopes that are less steep to assure protection of adjoining property.

SECTION 1503

TEMPORARY USE OF STREETS, ALLEYS AND PUBLIC PROPERTY

[BG] 1503.1 General. Temporary use of streets, alleys and public property shall comply with the Street Use Ordinance, Seattle Municipal Code Title 15. ((~~**Storage and handling of materials.** The temporary use of streets or public property for the storage or handling of materials or equipment required for construction or demolition, and the protection provided to the public shall comply with the provisions of the applicable governing authority and this chapter.~~

~~**[BG] 1503.2 Obstructions.** Construction materials and equipment shall not be placed or stored so as to obstruct access to fire hydrants, standpipes, fire or police alarm boxes, catch basins or manholes, nor shall such material or equipment be located within 20 feet (6.1 m) of a street~~

~~intersection, or placed so as to obstruct normal observations of traffic signals or to hinder the use of public transit loading platforms.~~

~~**[BG] 1503.3 Utility fixtures.** Building materials, fences, sheds or any obstruction of any kind shall not be placed so as to obstruct free approach to any fire hydrant, fire department connection, utility pole, manhole, fire alarm box, or catch basin, or so as to interfere with the passage of water in the gutter. Protection against damage shall be provided to such utility fixtures during the progress of the work, but sight of them shall not be obstructed.~~))

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SECTION 1505

MEANS OF EGRESS

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[F] 1505.2 Maintenance of means of egress. Required means of egress shall be maintained at all times during construction, demolition, remodeling or *alterations* and *additions* to any building.

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

***

SECTION 1507

AUTOMATIC SPRINKLER SYSTEM

[F] 1507.1 Completion before occupancy. In portions of a building where an automatic sprinkler system is required by this code, it shall be unlawful to occupy those portions of the building until the automatic sprinkler system installation has been tested and approved, ((~~except as provided in Section 110.3~~)) unless approved by the *code official*.

***

SECTION 1510

DEMOLITION

1510.1 Construction documents. Construction documents and a schedule for demolition shall be submitted where required by the *code official*. Where such information is required, no work shall be done until such construction documents or schedule, or both, are approved.

1510.2 Pedestrian protection. The work of demolishing any building shall not be commenced until pedestrian protection is in place as required by this chapter and the Street Use Ordinance, Seattle Municipal Code Title 15.

1510.3 Means of egress. A horizontal exit shall not be destroyed unless and until a substitute means of egress has been provided and approved.

1510.4 Surface condition and fill. The site shall be left level and free of debris upon completion of demolition, and all holes shall be filled or protected with secure fences. Holes are permitted to be filled with concrete, rocks or other nondecaying material no larger than 12 inches (305 mm) in diameter. Wood and other organic material shall not be buried on the site. Leaving the site level means:

1. The grade conforms to that existing on all sides;
2. Surface water will drain off;
3. Surface is smooth; and
4. Broken sections of the foundation or other material are not exposed.

The site shall be seeded upon completion of the demolition if it is to be left vacant for more than 6 months.

1510.5 Water accumulation. Provision shall be made to prevent the accumulation of water or damage to any foundations on the premises or the adjoining property.

1510.6 Utility connections. Service utility connections shall be discontinued and capped in accordance with requirements of the governing utility or agency including, but not limited to, Seattle Public Utilities, Seattle Department of Transportation, Seattle Fire Department, Seattle City Light, Puget Sound Energy and Qwest Communications.

1510.7 Fire safety during demolition. Fire safety during demolition shall comply with the applicable requirements of this code and the applicable provisions of Chapter 56 of the *International Fire Code*.

1510.8 Removal of hazardous and combustible materials. All asbestos and other hazardous material shall be removed prior to demolition, in accordance with regulations of the Environmental Protection Agency, the Puget Sound Clean Air Agency and other pertinent agencies. Combustible waste shall be removed in accordance with the Fire Code. During demolition, streets and sidewalks shall be left clean at the end of each day's operation.

1510.9 Welding and cutting. Welding and cutting shall be performed in accordance with the *International Fire Code*.

1510.10 Erosion and sediment control. Provision shall be made to stabilize ground conditions to eliminate dust and erosion. Demolition sites shall comply with the Seattle Stormwater Code, Seattle Municipal Code (SMC) Title 22, Subtitle VIII, and the Seattle Grading Code, SMC Chapter 22.170.

1510.11 Drainage. If the demolition will result in a change of drainage patterns, the flow of all watercourses, including streams, ditches, drains, combined sewers and runoff, intercepted during the progress of the work, shall be returned to the condition present before the demolition or as

specified on the permit, and in accordance with the Seattle Stormwater Code and Seattle Grading Code, SMC Title 22, Subtitle VIII, and SMC Chapter 22.170, respectively.

1510.12 Foundations and footings. All concrete or masonry floors, foundations, footings, basement walls and retaining walls not to be reused shall be removed to 18 inches (457 mm) below final grade. All concrete floors left in place shall be broken so as to allow water to drain through unless the floors are to be used.

1510.13 Engineer's report. The *code official* is permitted to require a structural engineer's analysis of proposed demolition or any portions of a structure remaining after demolition.

1510.14 Underground tanks. When demolition occurs, all underground tanks on the site shall either be removed or filled, as required by the *International Fire Code*.

SECTION 1511

SITE WORK

1511.1 Excavation and fill. Excavation and fill for buildings and structures shall be constructed or protected so as not to endanger life or property. Stumps and roots shall be removed from the soil to a depth of not less than 12 inches (305 mm) below the surface of the ground in the area to be occupied by the building. Wood forms which have been used in placing concrete, if within the ground or between foundation sills and the ground, shall be removed before a building is occupied or used for any purpose. Before completion, loose or casual wood shall be removed from direct contact with the ground under the building.

1511.1.1 Slope limits. Slopes for permanent fill shall be not steeper than one unit vertical in two units horizontal (50-percent slope). Cut slopes for permanent excavations shall be not steeper than one unit vertical in two units horizontal (50-percent slope). Deviation from the

foregoing limitations shall be permitted only upon the presentation of a soil investigation report acceptable to the *code official*.

1511.1.2 Surcharge. No fill or other surcharge loads shall be placed adjacent to any building or structure unless such building or structure is capable of withstanding the additional loads caused by the fill or surcharge. Existing footings or foundations which can be affected by any excavation shall be underpinned adequately or otherwise protected against settlement and shall be protected against later movement.

1511.1.3 Fill supporting foundations. Fill to be used to support the foundations of any building or structure shall comply with *International Building Code* Section 1804.5. Special inspections of compacted fill shall be in accordance with *International Building Code* Section 1705.6.

SECTION 1512

CONSTRUCTION MATERIAL MANAGEMENT

1512.1 Storage and handling of materials. Materials stored and handled on site during construction shall comply with the manufacturer's printed instructions. Where manufacturer's printed instructions are not available, approved standards or guidelines shall be followed.

1512.2 Construction phase moisture control. Porous or fibrous materials and other materials subject to moisture damage shall be protected from moisture during construction. Material damaged by moisture or that is visibly colonized by fungi either prior to delivery or during construction shall be cleaned and dried or, where damage cannot be corrected by such means, shall be removed and replaced.

Section 14. The following sections of Chapter 16 of the International Existing Building Code, 2015 Edition, are amended as follows:

CHAPTER 16

REFERENCED STANDARDS

ASCE/SEI

American Society of Civil Engineers

Structural Engineering Institute

1801 Alexander Bell Drive

Reston, VA 20191-4400

***

31-03 Seismic Evaluation of Existing Buildings……..303.1.4, 303.1.5, 305.4, 305.4.2, Table 305.4.2, 907.2

***

Section 15. The following sections of Chapter A1 of the International Existing Building Code, 2015 Edition, are amended as follows:

Appendix A: Guidelines for the Seismic Retrofit of Existing Buildings

CHAPTER A1

SEISMIC STRENGTHENING PROVISIONS FOR UNREINFORCED MASONRY BEARING WALL BUILDINGS

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SECTION A106

MATERIALS REQUIREMENTS

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[BS] A106.2 Existing materials. Existing materials used as part of the required vertical load-carrying or lateral forceresisting system shall be in sound condition, or shall be repaired or removed and replaced with new materials. All other unreinforced masonry materials shall comply with the following requirements:

1. The lay-up of the masonry units shall comply with Section A106.3.2, and the quality of bond between the units has been verified to the satisfaction of the ((~~building official~~)) *code official*;
2. Concrete masonry units are verified to be load-bearing units complying with ASTM C 90 or such other standard as is acceptable to the ((~~building official~~)) *code official*; and
3. The compressive strength of plain concrete walls shall be determined based on cores taken from each class of concrete wall. The location and number of tests shall be the same as those prescribed for tensile-splitting strength tests in Sections A106.3.3.3 and A106.3.3.4, or in Section A108.1.

The use of materials not specified herein or in Section A108.1 shall be based on substantiating research data or engineering judgment, with the approval of the ((~~building official~~)) *code official*.

***

Section 16. The following sections of Chapter A6 of the International Existing Building Code, 2015 Edition, are amended as follows:

CHAPTER A6

REFERENCED STANDARDS

***

ASTM

ASTM International

100 Barr Harbor Drive

West Conshohocken, PA 19428-2959

A653/A653M—08 Standard Specification for Steel Sheet, Zinc Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by Hot-Dip Process . . . .…. .A304.2.6

C90—2003 Standard Specification for Load-bearing Concrete Masonry Units. A505.2.3

C496—96 Standard Test Method for Splitting Tensile Strength of Cylindrical Concrete Specimens . . …….. . A104, A106.3.3.2

E 488-10 Test Method for Strength of Anchors in Concrete and Masonry Elements…A107.5

E519—00e1 Standard Test Method for Diagonal Tension (Shear) in Masonry Assemblages. . . . . ……... . A104, A106.3.3.2

***

Section 17. Sections 2-17 of Ordinance 124283 are repealed.

Section 18. Beginning on the effective date of this ordinance and ending on January 1, 2017, permit applicants who submit a valid and fully complete building permit application during that period may elect to have the application reviewed under the provisions of Ordinance 124283 rather than this ordinance.

Section 19. The provisions of this ordinance are declared to be separate and severable. The invalidity of any clause, sentence, paragraph, subdivision, section or portion of this ordinance, or the invalidity of the application thereof to any person, owner, or circumstance shall

not affect the validity of the remainder of this ordinance, or the validity of its application to other persons, owners, or circumstances.

Section 20. Section 17 of this ordinance shall take effect January 1, 2017.

Section 21. This ordinance shall take effect and be in force 30 days after its approval by the Mayor, but if not approved and returned by the Mayor within ten days after presentation, it shall take effect as provided by Seattle Municipal Code Section 1.04.020.

Passed by the City Council the _____ day of _____, 2016, and signed by me in open session in authentication of its passage this _____ day of _____, 2016.

_____

President _____ of the City Council

Approved by me this _____ day of _____, 2016.

_____

Edward B. Murray, Mayor

Filed by me this _____ day of _____, 2016.

_____

Monica Martinez Simmons, City Clerk

(Seal)