

2013 PROPOSED CHANGES TO THE INTERNATIONAL EXISTING BUILDING CODE

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TENTATIVE ORDER OF DISCUSSION 2013 PROPOSED CHANGES TO THE INTERNATIONAL EXISTING BUILDING CODE

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

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

ADM56-13	EB38-13
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F59-13, Part II	
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EB1 – 13

202

Proponent: Jim Edelson, New Buildings Institute (jedelson@comcast.net), Ric Cochrane, National Trust for Historic Preservation, David Collins, The Preview Group, representing The American Institute of Architects

Delete and substitute as follows:

~~**[B] HISTORIC BUILDING.** Any building or structure that is listed in the State or National Register of Historic Places; designated as a historic property under local or state designation law or survey; certified as a contributing resource within a National Register listed or locally designated historic district; or with an opinion or certification that the property is eligible to be listed on the National or State Register of Historic Places either individually or as a contributing building to a historic district by the State Historic Preservation Officer or the Keeper of the National Register of Historic Places.~~

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; or
3. Certified as a contributing resource within a National Register listed or locally designated historic district.

Reason: The current language for Historic Buildings in the IECC-Commercial, the IECC-Residential and the IEBC is confusing and does not clearly describe how buildings and districts are listed or determined to be eligible to be listed as historic. The definition in the IEBC contains no fewer than three semi-colons and nine uses of “or” in a single sentence. This makes the language very difficult to parse.

This proposal solves two problems. First, it remedies the confusion caused by the sheer complexity of the defining language by converting the running list of qualifications into a clearly delineated numbered list. Second, the proposal gives the language clarity and specificity as to how a building is officially determined to be eligible for the various lists of historic buildings. In accordance with the Code of Federal Regulations, Title 36, Chapter I, Part 63, determinations of eligibility for listing in the National Register of Historic Places are made by State Historic Preservation Offices in coordination with the Keeper of the National Register of Historic Places. This is an official process conducted in accordance with federal standards. This proposal aligns the code language with the language of this official process and removes any ambiguity as to who can make determinations of eligibility.

This proposal is one of four proposals in Cycle B to create a consistency for Historic Buildings across the I-codes. The other three proposals are being made to the IECC-Residential, the IECC-Commercial and the IPMC.

Cost Impact: The code change proposal will not increase the cost of construction.

Analysis: PM2-13 and CE7-13 also propose a similar definition for Historic Building for the IPMC and IECC, respectively.

EB_-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

202-[B] HISTORIC BUILDING-EB-COCHRANE-COLLINS-EDELSON.doc

EB2 – 13

Chapter 3, 302 (NEW), 501.3

Proponent: Maureen Traxler, City of Seattle, representing Seattle Dept. of Planning & Development (Maureen.traxler@seattle.gov)

Revise as follows:

CHAPTER 3 PROVISIONS FOR ALL COMPLIANCE METHODS

SECTION 302 PROVISIONS FOR ALL COMPLIANCE METHODS

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

301.2 302.2 Additional codes. *Alterations, repairs, additions and changes of occupancy to, or relocation of, existing buildings and structures shall comply with the provisions for alterations, repairs, additions and changes of occupancy or relocation, respectively, in this code and the International Energy Conservation Code, International Fire Code, International Fuel Gas Code, International Mechanical Code, International Plumbing Code, International Property Maintenance Code, International Private Sewage Disposal Code, International Residential Code and NFPA 70. Where provisions of the other codes conflict with provisions of this code, the provisions of this code shall take precedence.*

302.3 Existing materials. Materials already in use in a building in compliance with requirements or approvals in effect at the time of their erection or installation shall be permitted to remain in use unless determined by the building official to be unsafe per Section 115. (IEBC 401.2.1)

302.4 New and replacement materials. Except as otherwise required or permitted by this code, materials permitted by the applicable code for new construction shall be used. Like materials shall be permitted for repairs and alterations, provided no hazard to life, health or property is created. Hazardous materials shall not be used where the code for new construction would not permit their use in buildings of similar occupancy, purpose and location. (IEBC 401.2.2)

302.5 501.3 Occupancy and use. When determining the appropriate application of the referenced sections of this code, the occupancy and use of a building shall be determined in accordance with Chapter 3 of the *International Building Code*.

Reason: Some provisions that should apply to all 3 compliance methods are located in chapters related to only one method. To accommodate these provisions, we propose that a new section be created in chapter 3, which is the only chapter, other than administrative chapters, that applies to all 3 compliance methods. All the provisions in the proposed Section 302 already exist in the IEBC, except the charging section. Since Chapter 4 was dealt with during the Group A Cycle the sections in Chapter 4 can not be deleted but instead are copied into Chapter 3. Section 302.3 is a duplication of Section 401.2.1 and Section 302.4 is a duplication of Section 401.2.2.

The intent of this proposal is to copy and relocate sections and renumber other chapters as necessary.

Cost Impact: This code change proposal will not increase the cost of construction.

EB2-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

CHAPTER 3-EB-TRAXLER.doc

EB3 – 13

301.1, 301.2, 302 (New), 302.1 (New), 302.1.1 (New), 303 (New), 705.1, Chapter 16

Proponent: David S. Collins, FAIA, The Preview Group, Inc. (dcollins@preview-group.com), The American Institute of Architects and Robert J Davidson, Davidson Code Concepts, LLC

Revise as follows:

CHAPTER 3 COMPLIANCE METHODS, APPLICABILITY AND MINIMUM REQUIREMENTS

301.1 General. The *repair, alteration, change of occupancy, addition* or relocation of all *existing buildings* shall comply with one of the methods listed in Sections 301.1.1 through 301.1.3 as selected by the applicant in addition to complying with the minimum requirements in Sections 302 and 303. Application of a method shall be the sole basis for assessing the compliance of work performed under a single permit unless otherwise approved by the *code official*. 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 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 907.4.3. New structural members added as part of the *alteration* shall comply with the *International Building Code*. *Alterations of existing buildings in flood hazard areas* shall comply with Section 701.3.

SECTION 302 ADDITIONAL CODES AND REQUIREMENTS

301.2 Additional codes 302.1 General. *Alterations, repairs, additions and changes of occupancy* to, or relocation of, *existing buildings* and structures shall comply with the provisions for *alterations, repairs, additions and changes of occupancy* or relocation, respectively, in this code and the *International Energy Conservation Code, International Fire Code, International Fuel Gas Code, International Mechanical Code, International Plumbing Code, International Property Maintenance Code, International Private Sewage Disposal Code, International Residential Code* and NFPA 70. Where provisions of the other codes conflict with provisions of this code, the provisions of this code shall take precedence.

302.1.1 Accessibility. Level 1 alterations shall comply with the 2015 ANSI A117.1 to the extent of the altered element. Areas of an existing building that are outside the specific work area or otherwise unaffected by alterations Level 1, 2 or 3, that are required to be accessible by Chapter 7 shall comply with the 2003 ANSI A117.1.

Work performed under Level 2 and 3 alterations shall comply with the 2015 ANSI A117.1 and all spaces that change configuration as part of the alterations shall comply with the 2015 ANSI A117.1.

SECTION 303 EXISTING BUILDING MINIMUM REQUIREMENTS

303.1 Administration. Sections 303.1.1 through 303.1.4 shall set the scope, intent and administration of provisions related to minimum requirements that are applicable to existing buildings.

303.1.1 (IF 1101.1) Scope. The provisions of this Section shall apply to existing buildings constructed prior to the adoption of this code.

303.1.2 ([F] 1101.2) Intent. The intent of this Section is to provide a minimum degree of fire and life safety to persons occupying existing buildings by providing minimum construction requirements where such existing buildings do not comply with the minimum requirements of the International Building Code.

303.1.3 ([F] 1101.3) Permits. Permits for alterations necessary to conform with this Section shall be required as set forth in Sections 105.1.

303.1.4 ([F] 1101.4) Owner notification. When a building is found to be in noncompliance with this chapter, the code official shall duly notify the owner of the building. Upon receipt of such notice, the owner shall, subject to the following time limits, take necessary actions to comply with the provisions of this chapter.

303.1.4.1 ([F] 1101.4.1) Construction documents. Construction documents necessary to comply with this chapter shall be completed and submitted within a time schedule approved by the code official.

303.1.4.2 ([F] 1101.4.2) Completion of work. Work necessary to comply with this chapter shall be completed within a time schedule approved by the code official.

303.1.4.3 ([F] 1101.4.3) Extension of time. The code official is authorized to grant necessary extensions of time when it can be shown that the specified time periods are not physically practical or pose an undue hardship. The granting of an extension of time for compliance shall be based on the showing of good cause and subject to the filing of an acceptable systematic plan of correction with the code official.

303.2 ([F] SECTION 1103) Fire safety requirements for existing buildings. Minimum fire safety requirements for existing buildings shall be in provided in accordance with Sections 303.2.1 through 303.2.9.

303.2.1 ([F] 1103.1) Required construction. Existing buildings shall comply with not less than the minimum provisions specified in Table 303.2.1 and as further enumerated in Sections 303.2.2 through 303.2.9.

The provisions of this chapter shall not be construed to allow the elimination of fire protection systems or a reduction in the level of fire safety provided in buildings constructed in accordance with previously adopted codes.

Exception: Group U occupancies.

**TABLE 303.2.1 ([F] TABLE 1103.1)
OCCUPANCY AND USE REQUIREMENTS^a**

SECTION	USE			OCCUPANCY CLASSIFICATION																		
	High rise	Atrium or covered mall	Under-ground building	A	B	E	F	H1	H-2	H-3	H-4	H-5	I-1	I-2	I-3	I-4	M	R-1	R-2	R-3	R-4	S
301.3.5	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
301.3.6	R	-	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
301.3.7.1	R	-	R	-	-	-	-	-	-	-	-	-	R	R	R	R	-	-	-	-	-	-
301.3.7.2	R	-	R	R	R	R	R	R	R	R	R	R	-	-	-	-	R	R	R	-	R	R
301.3.7.3	R	-	R	R	R	R	R	R	R	R	R	R	-	-	-	-	R	R	R	-	R	R
301.3.7.4	-	R	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
301.3.7.5	-	-	-	-	R	-	-	-	-	-	-	-	-	-	-	-	R	-	-	-	-	-
301.3.7.6	-	-	-	R	-	R	R	R	R	R	R	R	R	R	R	R	-	R	R	R	R	R
301.3.7.7	-	-	-	R	-	R	R	R	R	R	R	R	R	R	R	R	-	R	R	R	R	R
301.3.8.1	-	-	-	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R

<u>301.3.8.2</u>	-	-	-	-	-	-	-	-	-	-	-	-	-	R	-	-	-	-	-	-	-	-
<u>301.3.9.1</u>	R	-	R	R	R	R	R	R	R	R	-	-	R	R	R	R	R	R	R	-	R	R
<u>301.3.9.2</u>	R	-	R	R	R	R	R	R	R	R	-	-	R	R	R	R	R	R	R	-	R	R
<u>301.3.10.1</u>	-	-	-	-	-	R	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>301.3.10.2</u>	-	-	-	-	-	-	-	-	-	-	-	-	R	-	-	-	-	-	-	-	-	-
<u>301.3.10.3</u>	-	-	-	-	-	-	-	-	-	-	-	-	-	R	-	-	-	-	-	-	-	-
<u>301.3.10.4</u>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R	-	-	-	-	-	-	-
<u>301.3.10.5</u>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R	-	-	-	-
<u>301.3.10.6</u>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R	-	-	-
<u>301.3.10.7</u>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R	-
<u>301.3.10.8</u>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R	R	R	R	-
<u>301.3.11</u>	R	-	-	-	-	-	-	-	-	-	-	-	R	R	R	R	-	R	R	R	R	-
<u>301.3.12.4.1</u>	R	R	R	R	R	R	R	R	R	R	-	-	R	R	R	R	R	R	R	R	R	R

a. Existing buildings shall comply with the Sections identified as "Required" (R) based on occupancy classification or use, or both, whichever is applicable.

R = The building is required to comply.

303.2.2 (IF 1103.2) Emergency responder radio coverage in existing buildings. Existing buildings that do not have approved radio coverage for emergency responders within the building based upon the existing coverage levels of the public safety communication systems of the jurisdiction at the exterior of the building, shall be equipped with such coverage according to one of the following:

1. Whenever an existing wired communication system cannot be repaired or is being replaced, or where not approved in accordance with Section 510.1, Exception 1 of the *International Fire Code*.
2. Within a time frame established by the adopting authority.

Exception: Where it is determined by the fire code official that the radio coverage system is not needed.

303.2.3 (IF 1103.3) Elevator operation. 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.

303.2.4 (IF 1103.4) Vertical openings. Interior vertical shafts, including but not limited to stairways, elevator hoistways, service and utility shafts, that connect two or more stories of a building, shall be enclosed or protected as specified in Sections 303.2.4.1 through 303.2.4.7.

303.2.4.1 (IF 1103.4.1) Group I occupancies. In Group I occupancies, interior vertical openings connecting two or more stories shall be protected with 1-hour fire-resistance-rated construction.

303.2.4.2 (IF 1103.4.2) Three to five stories. In other than Group I occupancies, interior vertical openings connecting three to five stories shall be protected by either 1-hour fire-resistance-rated construction or an automatic sprinkler system shall be installed throughout the building in accordance with Section 903.3.1.1 or 903.3.1.2 of the *International Building Code*.

Exceptions:

1. Vertical opening protection is not required for Group R-3 occupancies.
2. Vertical opening protection is not required for open parking garages and ramps.
3. Vertical opening protection for escalators shall be in accordance with Section 303.2.4.5, 303.2.4.6 or 303.2.4.7.

303.2.4.3 (IF) 1103.4.3 More than five stories. In other than Group I occupancies, interior vertical openings connecting more than five stories shall be protected by 1-hour fire-resistance-rated construction.

Exceptions:

1. Vertical opening protection is not required for Group R-3 occupancies.
2. Vertical opening protection is not required for open parking garages and ramps.
3. Vertical opening protection for escalators shall be in accordance with Section 303.2.4.5, 303.2.4.6 or 303.2.4.7.

303.2.4.4 (IF) 1103.4.4 Atriums and covered malls. In other than Group I occupancies, interior vertical openings in a covered mall building or a building with an atrium shall be protected by either 1-hour fire-resistance-rated construction or an automatic sprinkler system shall be installed throughout the building in accordance with Section 903.3.1.1 or 903.3.1.2 of the *International Building Code*.

Exceptions:

1. Vertical opening protection is not required for Group R-3 occupancies.
2. Vertical opening protection is not required for open parking garages and ramps.

303.2.4.5 (IF) 1103.4.5 Escalators in Group B and M occupancies. Escalators creating vertical openings connecting any number of stories shall be protected by either 1-hour fire-resistance-rated construction or an automatic sprinkler system in accordance with Section 903.3.1.1 of the *International Building Code* installed throughout the building, with a draft curtain and closely spaced sprinklers around the escalator opening.

303.2.4.6 (IF) 1103.4.6 Escalators connecting four or fewer stories. In other than Group B and M occupancies, escalators creating vertical openings connecting four or fewer stories shall be protected by either 1-hour fire-resistance-rated construction or an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 of the *International Building Code* shall be installed throughout the building, and a draft curtain with closely spaced sprinklers shall be installed around the escalator opening.

303.2.4.7 (IF) 1103.4.7 Escalators connecting more than four stories. In other than Group B and M occupancies, escalators creating vertical openings connecting five or more stories shall be protected by 1-hour fire-resistance-rated construction.

303.2.5 (IF) 1103.5) Sprinkler systems. An automatic sprinkler system shall be provided in existing buildings in accordance with Sections 303.2.5.1 and 303.2.5.2.

303.2.5.1 (IF) 1103.5.1 Pyroxylin plastics. An automatic sprinkler system shall be provided throughout existing buildings where cellulose nitrate film or pyroxylin plastics are manufactured, stored or handled in quantities exceeding 100 pounds (45 kg). Vaults located within buildings for the storage of raw pyroxylin shall be protected with an approved automatic sprinkler system capable of discharging 1.66 gallons per minute per square foot (68 L/min/m²) over the area of the vault.

303.2.5.2 (IF) 1103.5.2) Group I-2. An automatic sprinkler system shall be provided throughout existing Group I-2 fire areas. The sprinkler system shall be provided throughout the floor where the Group I-2 occupancy is located, and in all floors between the Group I-2 occupancy and the level of exit discharge.

303.2.6 (IF) 1103.6) Standpipes. Where required by Sections 303.2.6.1 or 303.2.6.2, standpipes shall be installed in accordance with Section 905 of the *International Building Code*. The code official is authorized to approve the installation of manual standpipe systems to achieve compliance with this Section where the responding fire department is capable of providing the required hose flow at the highest standpipe outlet.

303.2.6.1 (IF) 1103.6.1) Existing multiple-story buildings. Existing buildings with occupied floors located more than 50 feet (15 240 mm) above the lowest level of fire department access or more than 50 feet (15 240 mm) below the highest level of fire department access shall be equipped with standpipes.

303.2.6.2 (IF) 1103.6.2) Existing helistops and heliports. Existing buildings with a rooftop helistop or heliport located more than 30 feet (9144 mm) above the lowest level of fire department access to the roof level on which the helistop or heliport is located shall be equipped with standpipes in accordance with Section 905.3.6 of the *International Building Code*.

303.2.7 (IF) 1103.7) Fire alarm systems. An approved fire alarm system shall be installed in existing buildings and structures where required by Sections 303.2.7.1 through 303.2.7.7 and provide occupant notification in accordance with Section 907.6 of the *International Building Code* unless other requirements are provided by other Sections of this code.

Exception: Occupancies with an existing, previously approved fire alarm system.

303.2.7.1 (IF) 1103.7.1) Group E. A fire alarm system shall be installed in existing Group E occupancies in accordance with Section 907.2.3.

Exceptions:

1. A manual fire alarm system is not required in a building with a maximum area of 1,000 square feet (93 m²) that contains a single classroom and is located no closer than 50 feet (15 240 mm) from another building.
2. A manual fire alarm system is not required in Group E occupancies with an occupant load less than 50.

303.2.7.2 (IF) 1103.7.2) Group I-1. An automatic fire alarm system shall be installed in existing Group I-1 residential care/assisted living facilities in accordance with Section 907.2.6.1 of the *International Building Code*.

Exceptions:

1. Manual fire alarm boxes in resident or patient sleeping areas shall not be required at exits if located at all nurses' control stations or other constantly attended staff locations, provided such stations are visible and continuously accessible and that travel distances required in Section 907.5.2 of the *International Building Code* are not exceeded.
2. Where each sleeping room has a means of egress door opening directly to an exterior egress balcony that leads directly to the exits in accordance with Section 1019 of the *International Building Code*, and the building is not more than three stories in height.

303.2.7.3 (IF) 1103.7.3) Group I-2. An automatic fire alarm system shall be installed in existing Group I-2 occupancies in accordance with Section 907.2.6.2 of the *International Building Code*.

Exception: Manual fire alarm boxes in resident or patient sleeping areas shall not be required at exits if located at all nurses' control stations or other constantly attended staff locations, provided such stations are visible and continuously accessible and that travel distances required in Section 907.5.2.1 of the *International Building Code* are not exceeded.

303.2.7.4 (IF) 1103.7.4) Group I-3. An automatic and manual fire alarm system shall be installed in existing Group I-3 occupancies in accordance with Section 907.2.6.3 of the *International Building Code*.

303.2.7.5 (IF) 1103.7.5) Group R-1. A fire alarm system and smoke alarms shall be installed in existing Group R-1 occupancies in accordance with Sections 303.2.7.5.1 through 303.2.7.5.2.1.

303.2.7.5.1 (IF) 1103.7.5.1) Group R-1 hotel and motel manual fire alarm system. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.6 of the

International Building Code shall be installed in existing Group R-1 hotels and motels more than three stories or with more than 20 sleeping units.

Exceptions:

1. Buildings less than two stories in height where all sleeping units, attics and crawl spaces are separated by 1-hour fire-resistance-rated construction and each sleeping unit has direct access to a public way, egress court or yard.
2. Manual fire alarm boxes are not required throughout the building when the following conditions are met:
 - 2.1. The building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 of the *International Building Code*;
 - 2.2. The notification appliances will activate upon sprinkler water flow; and
 - 2.3. At least one manual fire alarm box is installed at an approved location.

303.2.7.5.1.1 ([F] 1103.7.5.1.1) Group R-1 hotel and motel automatic smoke detection system. An automatic smoke detection system that activates the occupant notification system in accordance with Section 907.6 of the *International Building Code* shall be installed in existing Group R-1 hotels and motels throughout all interior corridors serving sleeping rooms not equipped with an approved, supervised sprinkler system installed in accordance with Section 903 of the *International Building Code*.

Exception: An automatic smoke detection system is not required in buildings that do not have interior corridors serving sleeping units and where each sleeping unit has a means of egress door opening directly to an exit or to an exterior exit access that leads directly to an exit.

303.2.7.5.2 ([F] 1103.7.5.2) Group R-1 boarding and rooming houses manual fire alarm system. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.6 of the *International Building Code* shall be installed in existing Group R-1 boarding and rooming houses.

Exception: Buildings less than two stories in height where all sleeping units, attics and crawl spaces are separated by 1-hour fire-resistance-rated construction and each sleeping unit has direct access to a public way, egress court or yard.

303.2.7.5.2.1 ([F] 1103.7.5.2.1) Group R-1 boarding and rooming houses automatic smoke detection system. An automatic smoke detection system that activates the occupant notification system in accordance with Section 907.6 of the *International Building Code* shall be installed in existing Group R-1 boarding and rooming houses throughout all interior corridors serving sleeping units not equipped with an approved, supervised sprinkler system installed in accordance with Section 903 of the *International Building Code*.

Exception: Buildings equipped with single-station smoke alarms meeting or exceeding the requirements of Section 907.2.11.1 of the *International Building Code* and where the fire alarm system includes at least one manual fire alarm box per floor arranged to initiate the alarm.

303.2.7.6 ([F] 1103.7.6) Group R-2. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.6 of the *International Building Code* shall be installed in existing Group R-2 occupancies more than three stories in height or with more than 16 dwelling or sleeping units.

Exceptions:

1. Where each living unit is separated from other contiguous living units by fire barriers having a fire-resistance rating of not less than 0.75 hour, and where each living unit has either its own independent exit or its own independent stairway or ramp discharging at grade.
2. A separate fire alarm system is not required in buildings that are equipped throughout with an approved supervised automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 of the *International Building Code* and having a local alarm to notify all occupants.

3. A fire alarm system is not required in buildings that do not have interior corridors serving dwelling units and are protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 of the *International Building Code*, provided that dwelling units either have a means of egress door opening directly to an exterior exit access that leads directly to the exits or are served by open-ended corridors designed in accordance with Section 1026.6, Exception 4 of the *International Building Code*.

303.2.7.7 (IF 1103.7.7) Group R-4. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.6 of the *International Building Code* shall be installed in existing Group R-4 residential care/assisted living facilities in accordance with Section 907.2.10.1 of the *International Building Code*.

Exceptions:

1. Where there are interconnected smoke alarms meeting the requirements of Section 907.2.11 of the *International Building Code* and there is at least one manual fire alarm box per floor arranged to continuously sound the smoke alarms.
2. Other manually activated, continuously sounding alarms approved by the code official.

303.2.8 (IF 1103.8) Single- and multiple-station smoke alarms. Single- and multiple-station smoke alarms shall be installed in existing Group I-1 and R occupancies in accordance with Sections 303.2.8.1 through 303.2.8.3.

303.2.8.1 (IF 1103.8.1) Where required. Existing Group I-1 and R occupancies shall be provided with single-station smoke alarms in accordance with Section 907.2.11 of the *International Building Code*, except as provided in Sections 303.2.8.2 or 303.2.8.3.

Exceptions:

1. Where the code that was in effect at the time of construction required smoke alarms and smoke alarms complying with those requirements are already provided.
2. Where smoke alarms have been installed in occupancies and dwellings that were not required to have them at the time of construction, additional smoke alarms shall not be required provided that the existing smoke alarms comply with requirements that were in effect at the time of installation.
3. Where smoke detectors connected to a fire alarm system have been installed as a substitute for smoke alarms.

303.2.8.2 (IF 1103.8.2) Interconnection. Where more than one smoke alarm is required to be installed within an individual dwelling or sleeping unit, the smoke alarms shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the individual unit. Physical interconnection of smoke alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed.

Exceptions:

1. Interconnection is not required in buildings that are not undergoing alterations, repairs or construction of any kind.
2. Smoke alarms in existing areas are not required to be interconnected where alterations or repairs do not result in the removal of interior wall or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available which could provide access for interconnection without the removal of interior finishes.

303.2.8.3 (IF 1103.8.3) Power source. Single-station smoke alarms shall receive their primary power from the building wiring provided that such wiring is served from a commercial source and shall be equipped with a battery backup. Smoke alarms with integral strobes that are not equipped with battery backup shall be connected to an emergency electrical system. Smoke alarms shall emit a signal when the

batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for overcurrent protection.

Exceptions:

1. Smoke alarms are permitted to be solely battery operated in existing buildings where no construction is taking place.
2. Smoke alarms are permitted to be solely battery operated in buildings that are not served from a commercial power source.
3. Smoke alarms are permitted to be solely battery operated in existing areas of buildings undergoing alterations or repairs that do not result in the removal of interior walls or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available which could provide access for building wiring without the removal of interior finishes.

303.2.9 ([F] 1103.9) Carbon monoxide alarms. Existing Group I or R occupancies located in a building containing a fuel-burning appliance or a building which has an attached garage shall be equipped with single-station carbon monoxide alarms. The carbon monoxide alarms shall be listed as complying with UL 2034, and be installed and maintained in accordance with NFPA 720 and the manufacturer's instructions. An open parking garage, as defined in the International Building Code, or an enclosed parking garage ventilated in accordance with Section 404 of the *International Mechanical Code* shall not be deemed to be an attached garage.

Exception: Sleeping units or dwelling units which do not themselves contain a fuel-burning appliance or have an attached garage, but which are located in a building with a fuel-burning appliance or an attached garage, need not be equipped with single-station carbon monoxide alarms provided that:

1. The sleeping unit or dwelling unit is located more than one story above or below any story that contains a fuel-burning appliance or an attached garage;
2. The sleeping unit or dwelling unit is not connected by duct work or ventilation shafts to any room containing a fuel-burning appliance or to an attached garage; and
3. The building is provided with a common area carbon monoxide alarm system.

303.3 ([F] 1104.1). Means of egress. Means of egress in existing buildings shall comply with the minimum egress requirements when specified in Table 303.2.1 as further enumerated in Sections 303.3.1 through 303.3.23, and the building code that applied at the time of construction. Where the provisions of this chapter conflict with the building code that applied at the time of construction, the most restrictive provision shall apply. Existing buildings that were not required to comply with a building code at the time of construction shall comply with the minimum egress requirements when specified in Table 303.2.1 as further enumerated in Sections 303.3.1 through 303.3.23.

303.3.1 ([F] 1104.2) Elevators, escalators and moving walks. Elevators, escalators and moving walks shall not be used as a component of a required means of egress.

Exceptions:

1. Elevators used as an accessible means of egress where allowed by Section 1007.4 of the *International Building Code*.
2. Previously approved escalators and moving walks in existing buildings.

303.3.2 ([F] 1104.3) Exit sign illumination. Exit signs shall be internally or externally illuminated. The face of an exit sign illuminated from an external source shall have an intensity of not less than 5 footcandles (54 lux). Internally illuminated signs shall provide equivalent luminance and be listed for the purpose.

Exception: Approved self-luminous signs that provide evenly illuminated letters shall have a minimum luminance of 0.06 foot-lamberts (0.21 cd/m²).

303.3.3 ([F] 1104.4) Power source. here emergency illumination is required in Section 303.3.4, exit signs shall be visible under emergency illumination conditions.

Exception: Approved signs that provide continuous illumination independent of external power sources are not required to be connected to an emergency electrical system.

303.3.4 ([F] 1104.5) Illumination emergency power. The power supply shall normally be provided by the premises' electrical supply. In the event of power supply failure, illumination shall be automatically provided from an emergency system for the following occupancies where such occupancies require two or more means of egress:

1. Group A having 50 or more occupants.

Exception: Assembly occupancies used exclusively as a place of worship and having an occupant load of less than 300.

2. Group B buildings three or more stories in height, buildings with 100 or more occupants above or below a level of exit discharge serving the occupants or buildings with 1,000 or more total occupants.
3. Group E in interior stairs, corridors, windowless areas with student occupancy, shops and laboratories.
4. Group F having more than 100 occupants.

Exception: Buildings used only during daylight hours which are provided with windows for natural light in accordance with the International Building Code.

5. Group I.
6. Group M.

Exception: Buildings less than 3,000 square feet (279 m²) in gross sales area on one story only, excluding mezzanines.

7. Group R-1.

Exception: Where each sleeping unit has direct access to the outside of the building at grade.

8. Group R-2.

Exception: Where each dwelling unit or sleeping unit has direct access to the outside of the building at grade.

9. Group R-4.

Exception: Where each sleeping unit has direct access to the outside of the building at ground level.

303.3.4.1 ([F] 1104.5.1) Emergency power duration and installation. In other than Group I-2, the emergency power system shall provide power for not less than 60 minutes and consist of storage batteries, unit equipment or an on-site generator. In Group I-2, the emergency power system shall provide power for not less than 90 minutes and consist of storage batteries, unit equipment or an on-site generator. The installation of the emergency power system shall be in accordance with Section 1006.3 of the *international Building Code*.

303.3.5 ([F] 1104.6) Guards. Guards complying with this Section shall be provided at the open sides of means of egress that are more than 30 inches (762 mm) above the floor or grade below.

303.3.5.1 (IF 1104.6.1) Height of guards. Guards shall form a protective barrier not less than 42 inches (1067 mm) high.

Exceptions:

1. Existing guards on the open side of stairs shall be not less than 30 inches (760 mm) high.
2. Existing guards within dwelling units shall be not less than 36 inches (910 mm) high.
3. Existing guards in assembly seating areas.

303.3.5.2 (IF 1104.6.2) Opening limitations. Open guards shall have balusters or ornamental patterns such that a 6-inch-diameter (152 mm) sphere cannot pass through any opening up to a height of 34 inches (864 mm).

Exceptions:

1. At elevated walking surfaces for access to, and use of, electrical, mechanical or plumbing systems or equipment, guards shall have balusters or be of solid materials such that a sphere with a diameter of 21 inches (533 mm) cannot pass through any opening.
2. In occupancies in Group I-3, F, H or S, the clear distance between intermediate rails measured at right angles to the rails shall not exceed 21 inches (533 mm).
3. Approved existing open guards.

303.3.6 (IF 1104.7) Size of doors. The minimum width of each door opening shall be sufficient for the occupant load thereof and shall provide a clear width of not less than 28 inches (711 mm). Where this Section requires a minimum clear width of 28 inches (711 mm) and a door opening includes two door leaves without a mullion, one leaf shall provide a clear opening width of 28 inches (711 mm). The maximum width of a swinging door leaf shall be 48 inches (1219 mm) nominal. Means of egress doors in an occupancy in Group I-2 used for the movement of beds shall provide a clear width not less than 41.5 inches (1054 mm). The height of doors shall not be less than 80 inches (2032 mm).

Exceptions:

1. The minimum and maximum width shall not apply to door openings that are not part of the required means of egress in occupancies in Groups R-2 and R-3.
2. Door openings to storage closets less than 10 square feet (0.93 m²) in area shall not be limited by the minimum width.
3. Width of door leaves in revolving doors that comply with Section 1008.1.4.1 shall not be limited.
4. Door openings within a dwelling unit shall not be less than 78 inches (1981 mm) in height.
5. Exterior door openings in dwelling units, other than the required exit door, shall not be less than 76 inches (1930 mm) in height.
6. Exit access doors serving a room not larger than 70 square feet (6.5 m²) shall be not less than 24 inches (610 mm) in door width.

303.3.7 (IF 1104.8) Opening force for doors. The opening force for interior side-swinging doors without closers shall not exceed a 5-pound (22 N) force. For other side-swinging, sliding and folding doors, the door latch shall release when subjected to a force of not more than 15 pounds (66 N). The door shall be set in motion when subjected to a force not exceeding 30 pounds (133 N). The door shall swing to a full-open position when subjected to a force of not more than 50 pounds (222 N). Forces shall be applied to the latch side.

303.3.8 (IF 1104.9) Revolving doors. Revolving doors shall comply with the following:

1. A revolving door shall not be located within 10 feet (3048 mm) of the foot or top of stairs or escalators. A dispersal area shall be provided between the stairs or escalators and the revolving doors.
2. The revolutions per minute for a revolving door shall not exceed those shown in Table 303.3.8.
3. Each revolving door shall have a conforming side-hinged swinging door in the same wall as the revolving door and within 10 feet (3048 mm).

Exceptions:

1. A revolving door is permitted to be used without an adjacent swinging door for street-floor elevator lobbies provided a stairway, escalator or door from other parts of the building does not discharge through the lobby and the lobby does not have any occupancy or use other than as a means of travel between elevators and a street.
2. Existing revolving doors are permitted where the number of revolving doors does not exceed the number of swinging doors within 20 feet (6096 mm).

**303.3.8 TABLE ([F] 1104.9)
REVOLVING DOOR SPEEDS**

<u>INSIDE DIAMETER</u> <u>(feet-inches)</u>	<u>POWER-DRIVEN-TYPE</u> <u>SPEED CONTROL</u> <u>(rpm)</u>	<u>MANUAL-TYPE</u> <u>SPEED CONTROL</u> <u>(rpm)</u>
6-6	11	12
7-0	10	11
7-6	9	11
8-0	9	10
8-6	8	9
9-0	8	9
9-6	7	8
10-0	7	8

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

303.3.8.1 ([F] 1104.9.1) Egress component. A revolving door used as a component of a means of egress shall comply with Section 1104.9 and all of the following conditions:

1. Revolving doors shall not be given credit for more than 50 percent of the required egress capacity.
2. Each revolving door shall be credited with not more than a 50-person capacity.
3. Revolving doors shall be capable of being collapsed when a force of not more than 130 pounds (578 N) is applied within 3 inches (76 mm) of the outer edge of a wing.

303.3.9 ([F] 1104.10) Stair dimensions for existing stairs. Existing stairs in buildings shall be permitted to remain if the rise does not exceed 8 1/4 inches (210 mm) and the run is not less than 9 inches (229 mm). Existing stairs can be rebuilt.

Exception: Other stairs approved by the code official.

303.3.9.1 ([F] 1104.10.1) Dimensions for replacement stairs. The replacement of an existing *stairway* in a structure shall not be required to comply with the new *stairway* requirements of Section 1009 of the International Building Code where the existing space and construction will not allow a reduction in pitch or slope.

303.3.10 ([F] 1104.11) Winders. Existing winders shall be allowed to remain in use if they have a minimum tread depth of 6 inches (152 mm) and a minimum tread depth of 9 inches (229 mm) at a point 12 inches (305 mm) from the narrowest edge.

303.3.11 ([F] 1104.12) Circular stairways. Existing circular stairs shall be allowed to continue in use provided the minimum depth of tread is 10 inches (254 mm) and the smallest radius shall not be less than twice the width of the stairway.

303.3.12 ([F] 1104.13) Stairway handrails. Stairways shall have handrails on at least one side. Handrails shall be located so that all portions of the stairway width required for egress capacity are within 44 inches (1118 mm) of a handrail.

Exception: Aisle stairs provided with a center handrail are not required to have additional handrails.

303.3.12.1 (IF 1104.13.1) Height. Handrail height, measured above stair tread nosings, shall be uniform, not less than 30 inches (762 mm) and not more than 42 inches (1067 mm).

303.3.13 (IF 1104.14) Slope of ramps. Ramp runs utilized as part of a means of egress shall have a running slope not steeper than one unit vertical in 10 units horizontal (10-percent slope). The slope of other ramps shall not be steeper than one unit vertical in eight units horizontal (12.5-percent slope).

303.3.14 (IF 1104.15) Width of ramps. Existing ramps are permitted to have a minimum width of 30 inches (762 mm) but not less than the width required for the number of occupants served as determined by the *International Building Code*.

303.3.15 (IF 1104.16) Fire escape stairs. Fire escape stairs shall comply with Sections 303.3.15.1 through 303.15.7.

303.3.15.1 (IF 1104.16.1) Existing means of egress. Fire escape stairs shall be permitted in existing buildings but shall not constitute more than 50 percent of the required exit capacity.

303.3.15.2 (IF 1104.16.2) Protection of openings. Openings within 10 feet (3048 mm) of fire escape stairs shall be protected by opening protectives having a minimum $\frac{3}{4}$ -hour fire protection rating.

Exception: In buildings equipped throughout with an approved automatic sprinkler system, opening protection is not required.

303.3.15.3 (IF 1104.16.3) Dimensions. Fire escape stairs shall meet the minimum width, capacity, riser height and tread depth as specified in Section 303.3.9.

303.3.15.4 (IF 1104.16.4) Access. Access to a fire escape stair from a corridor shall not be through an intervening room. Access to a fire escape stair shall be from a door or window meeting the criteria of Section 1005.1 of the *International Building Code*. Access to a fire escape stair shall be directly to a balcony, landing or platform. These shall be no higher than the floor or window sill level and no lower than 8 inches (203 mm) below the floor level or 18 inches (457 mm) below the window sill.

303.3.15.5 (IF 1104.16.5) Materials and strength. Components of fire escape stairs shall be constructed of noncombustible materials. Fire escape stairs and balconies shall support the dead load plus a live load of not less than 100 pounds per square foot (4.78 kN/m²). Fire escape stairs and balconies shall be provided with a top and intermediate handrail on each side.

303.3.15.5.1 (IF 1104.16.5.1) Examination. Fire escape stairs and balconies shall be examined for structural adequacy and safety in accordance with Section 303.15.5 by a registered design professional or others acceptable to the fire code official every five years, or as required by the fire code official. An inspection report shall be submitted to the fire code official after such examination.

303.3.15.6 (IF 1104.16.6) Termination. The lowest balcony shall not be more than 18 feet (5486 mm) from the ground. Fire escape stairs shall extend to the ground or be provided with counterbalanced stairs reaching the ground.

Exception: For fire escape stairs serving 10 or fewer occupants, an approved fire escape ladder is allowed to serve as the termination.

303.3.15.7 (IF 1104.16.7) Maintenance. Fire escapes shall be kept clear and unobstructed at all times and shall be maintained in good working order.

303.3.16 (IF 1104.17) Corridors. Corridors serving an occupant load greater than 30 and the openings therein shall provide an effective barrier to resist the movement of smoke. Transoms, louvers, doors and other openings shall be kept closed or self-closing.

Exceptions:

1. Corridors in occupancies other than in Group H, which are equipped throughout with an approved automatic sprinkler system.
2. Patient room doors in corridors in occupancies in Group I-2 where smoke barriers are provided in accordance with the *International Building Code*.
3. Corridors in occupancies in Group E where each room utilized for instruction or assembly has at least one-half of the required means of egress doors opening directly to the exterior of the building at ground level.
4. Corridors that are in accordance with the *International Building Code*.

303.3.16.1 (IF) 1104.17.1) Corridor openings. Openings in corridor walls shall comply with the requirements of the *International Building Code*.

Exceptions:

1. Where 20-minute fire door assemblies are required, solid wood doors at least 1.75 inches (44 mm) thick or insulated steel doors are allowed.
2. Openings protected with fixed wire glass set in steel frames.
3. Openings covered with 0.5-inch (12.7 mm) gypsum wallboard or 0.75-inch (19.1 mm) plywood on the room side.
4. Opening protection is not required when the building is equipped throughout with an approved automatic sprinkler system.

303.3.16.2 (IF) 1104.17.2) Dead ends. Where more than one exit or exit access doorway is required, the exit access shall be arranged such that dead ends do not exceed the limits specified in Table 303.16.2.

Exception: A dead-end passageway or corridor shall not be limited in length where the length of the dead-end passageway or corridor is less than 2.5 times the least width of the dead-end passageway or corridor.

**303.3.16.2 TABLE (IF) 1104.17.2)
COMMON PATH, DEAD-END AND TRAVEL DISTANCE LIMITS (by occupancy)**

OCCUPANCY	COMMON PATH LIMIT		DEAD-END LIMIT		TRAVEL DISTANCE LIMIT	
	Unsprinklered (feet)	Sprinklered (feet)	Unsprinklered (feet)	Sprinklered (feet)	Unsprinklered (feet)	Sprinklered (feet)
Group A	20/75 ^a	20/75 ^a	20 ^b	20 ^b	200	250
Group B ⁱ	75	100	50	50	200	300
Group E	75	100	50	50	200	300
Group F-1, S-1 ^{d,f}	75	100	50	50	200	250
Group F-2, S-2 ^{d,f}	75	100	50	50	300	400
Group H-1	25	25	0	0	75	75
Group H-2	50	100	0	0	75	100
Group H-3	50	100	20	20	100	150
Group H-4	75	75	20	20	150	175
Group H-5	75	75	20	50	150	200
Group I-1	75	75	20	50	200	250
Group I-2 (Health care)	NR ^e	NR ^e	NR	NR	150	200 ^c
Group I-3 (Detention and correctional – Use Conditions II, III, IV, V)	100	100	NR	NR	150 ^c	200 ^c
Group I-4 (Day care centers)	NR	NR	20	20	200	250
Group M (Covered or open mall)	75	100	50	50	200	400
Group M (Mercantile)	75	100	50	50	200	250
Group R-1 (Hotels)	75	75	50	50	200	250
Group R-2	75	125	50	50	200	250

(Apartments)						
Group R-3 (One- and two-family)	NR	NR	NR	NR	NR	NR
Group R-4 (Residential care/assisted living)	NR	NR	NR	NR	NR	NR
Group U	75	100	20	50	300	400

NR = No requirements.

For SI: 1 foot = 304.8 mm, 1 square foot = 0.0929 m².

- a. 20 feet for common path serving 50 or more persons; 75 feet for common path serving less than 50 persons.
- b. See Section 1028.9.5 for dead-end aisles in Group A occupancies.
- c. This dimension is for the total travel distance, assuming incremental portions have fully utilized their allowable maximums. For travel distance within the room, and from the room exit access door to the exit, see the appropriate occupancy chapter.
- d. See the International Building Code for special requirements on spacing of doors in aircraft hangars.
- e. Any patient sleeping room, or any suite that includes patient sleeping rooms, of more than 1,000 square feet shall have at least two exit access doors placed a distance apart equal to not less than one-third of the length of the maximum overall diagonal dimension of the patient sleeping room or suite to be served, measured in a straight line between exit access doors.
- f. Where a tenant space in Group B, S and U occupancies has an occupant load of not more than 30, the length of a common path of egress travel shall not be more than 100 feet.

303.3.17 ([F] 1104.18) Exit access travel distance. Exits shall be located so that the maximum length of exit access travel, measured from the most remote point to an approved exit along the natural and unobstructed path of egress travel, does not exceed the distances given in Table 301.3.12.15.2.

303.3.18 ([F] 1104.19) Common path of egress travel. The common path of egress travel shall not exceed the distances given in Table 301.3.12.15.2.

303.3.19 ([F] 1104.20) Stairway discharge identification. An interior exit stairway or ramp which continues below its level of exit discharge shall be arranged and marked to make the direction of egress to a public way readily identifiable.

Exception: Stairs that continue one-half story beyond their levels of exit discharge need not be provided with barriers where the exit discharge is obvious.

303.3.20 ([F] 1104.21) Exterior stairway protection. Exterior exit stairs shall be separated from the interior of the building as required in Section 1026.6 of the *International Building Code*. Openings shall be limited to those necessary for egress from normally occupied spaces.

Exceptions:

1. Separation from the interior of the building is not required for buildings that are two stories or less above grade where the level of exit discharge serving such occupancies is the first story above grade.
2. Separation from the interior of the building is not required where the exterior stairway is served by an exterior balcony that connects two remote exterior stairways or other approved exits, with a perimeter that is not less than 50 percent open. To be considered open, the opening shall be a minimum of 50 percent of the height of the enclosing wall, with the top of the opening not less than 7 feet (2134 mm) above the top of the balcony.
3. Separation from the interior of the building is not required for an exterior stairway located in a building or structure that is permitted to have unenclosed interior stairways in accordance with Section 1022 of the *International Building Code*.
4. Separation from the interior of the building is not required for exterior stairways connected to open-ended corridors, provided that:
 - 4.1. The building, including corridors and stairs, 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*.
 - 4.2. The open-ended corridors comply with Section 1018.2 of the *International Building Code*.

- 4.3. The open-ended corridors are connected on each end to an exterior exit stairway complying with Section 1026 of the *International Building Code*.
- 4.4. At any location in an open-ended corridor where a change of direction exceeding 45 degrees (0.79 rad) occurs, a clear opening of not less than 35 square feet (3 m²) or an exterior stairway shall be provided. Where clear openings are provided, they shall be located so as to minimize the accumulation of smoke or toxic gases.

303.3.21 ([F] 1104.22) Minimum aisle width. The minimum clear width of aisles shall be:

1. Forty-two inches (1067 mm) for aisle stairs having seating on each side.

Exception: Thirty-six inches (914 mm) where the aisle serves less than 50 seats.

2. Thirty-six inches (914 mm) for stepped aisles having seating on only one side.

Exception: Thirty inches (760 mm) for catchment areas serving not more than 60 seats.

3. Twenty inches (508 mm) between a stepped aisle handrail or guard and seating when the aisle is subdivided by the handrail.

4. Forty-two inches (1067 mm) for level or ramped aisles having seating on both sides.

Exception: Thirty-six inches (914 mm) where the aisle serves less than 50 seats.

5. Thirty-six inches (914 mm) for level or ramped aisles having seating on only one side.

Exception: Thirty inches (760 mm) for catchment areas serving not more than 60 seats.

6. Twenty-three inches (584 mm) between a stepped stair handrail and seating where an aisle does not serve more than five rows on one side.

303.3.22 ([F] 1104.23) Stairway floor number signs. Existing stairs shall be marked in accordance with Section 1022.8 of the *International Building Code*.

303.3.23 ([F] 1104.24) Egress path markings. Existing high-rise buildings of Group A, B, E, I, M and R-1 occupancies shall be provided with luminous egress path markings in accordance with Section 1024 of the *International Building Code*.

Exception: Open, unenclosed stairwells in historic buildings designated as historic under a state or local historic preservation program.

303.4 ([F] 1105) Requirements for outdoor operations. Outdoor operations shall be in accordance with Section 303.4.1 through 303.4.1.2.

303.4.1 ([F] 1105.1) Tire storage yards. Existing tire storage yards shall be provided with fire apparatus access roads in accordance with Sections 1105.1.1 and 1105.1.2 of the *International Building Code*.

303.4.1.1 ([F] 1105.1.1) Access to piles. Access roadways shall be within 150 feet (45 720 mm) of any point in the storage yard where storage piles are located, at least 20 feet (6096 mm) from any storage pile.

303.4.1.2 ([F] 1105.1.2) Location within piles. Fire apparatus access roads shall be located within all pile clearances identified in Section 3405.4 and within all fire breaks required in Section 3405.5 of the *International Fire Code*.

705.1 General. An area being altered within a facility that is altered shall comply with the applicable provisions 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. Accessibility for existing buildings shall be determined as required by Section 302.1.1.

Add new standards to Chapter 16 as follows:

NFPA National Fire Protection Association
1 Batterymarch Park
Quincy, MA 02169-7471

NFPA 720-09 Standard for the installation of carbon monoxide(co) detection and warning equipment

UL Underwriters Laboratories, Inc.
333 Pfingsten Road
Northbrook, IL 60062-2096

UL 2034-08 Single and Multiple Station Carbon Monoxide Alarms with revisions through February 2009

Reason: This proposal does several things which include the following:

1. Revises the chapter title to more clearly reflect the content of the chapter
2. Restructures the requirements to more clearly point out the additional code requirements and make room for the existing minimum requirements
3. Adds some clarity on the applicable accessibility provisions
4. Places the minimum existing requirements from the fire code in the IEBC.

Title Change. The new title will make it more clear that the chapter both explains applicability and provides minimum requirements that apply to all methods of compliance.

Restructuring. Currently the additional code reference is lost at the end of the chapter. This will provide more visibility to this requirement. This also provides a better structure for future requirements such as those proposed for accessibility. In addition, it is felt that the provisions from Chapter 11 of the IFC which represent minimum existing requirements for all buildings, as applicable, should be stand alone for clarity.

Accessibility. Significant changes are being developed in the 2015 Edition of ANSI A117.1 Standard. No existing buildings have been designed to meet these standards and would be considered inaccessible under the new standard despite having complied with the 2003 standard. For example, Section 705.1.1 provides an exception for bringing an entrance into compliance if there is an accessible entrance elsewhere. A fully complying entrance under the older A117.1 would no longer be considered accessible under the new standard. Similarly, 705.2 requires the accessible route to conform where alterations are made to a primary function. Fully compliant access routes under the 2003 standard will not conform to the 2011 standard because of the changes to the minimum clearances reflecting the changed clear floor space.

With this change those elements that were compliant with the 2009 standard would continue to be considered compliant after the 2015 standard is made mandatory. This philosophy has been used with the changes in the new 2010 ADA Standard. Any existing building that conformed to the older standard is considered compliant under the new standard.

Existing requirements from IFC. Currently the IEBC only includes requirements for when an existing building is being repaired, altered or is undergoing a change of occupancy. The IFC includes minimum requirements for existing buildings in Chapter 11 that are applicable to all buildings. This change duplicates those requirements and moves them into the requirements for compliance in Chapter 3 of the IEBC so that owners and designers are aware of the additional minimums that may be imposed on an existing building beyond those required for the work anticipated. The intent is that these changes remain under the purview of the IFC Code Development Committee and are simply placed here to provide clarity to the code user that additional requirements may apply to the building if these minimums are not already met.

Changes from the IFC are only due to duplicate provisions that are already a part of the IEBC. For reference only we have included the original IFC Section number parenthetically.

- Fire code official has been revised to code official to address the fact that the authority enforcing this code may not be a fire code official.
- New Section 303.1.3 is based on IFC Section [F] 1101.3 that indicates that permits must be obtained per Sections 105.6 and 105.7 of the IFC and the IBC. The two referenced IFC Sections are not requiring permits for alterations necessary to conform, but for occupancies or systems in a building. A correction is made in this change to reference the IEBC permit requirements and a companion change is being submitted to make the same change to the IFC.

Cost Impact: This code change proposal will not increase the cost of construction.

Analysis: The proposed referenced standards are already referenced in the *International Building Code*.

EB3-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

301.1-EB-COLLINS.doc

EB4 – 13

301.1

Proponent: Maureen Traxler, City of Seattle, representing Seattle Dept. of Planning & Development
(Maureen.traxler@seattle.gov)

Revise as follows:

301.1 General. The *repair, alteration, change of occupancy, addition* or relocation of all *existing buildings* shall comply with one of the methods listed in Sections 301.1.1 through 301.1.3 as selected by the applicant. ~~Application of a method shall be the sole basis for assessing the compliance of work performed under a single permit unless otherwise approved by the code official.~~ 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.

Reason: This paragraph says the same thing 3 different ways in the first 3 sentences. The first sentence states that the applicant has to choose one of the 3 compliance methods. The second sentence again says that one of the three compliance methods must be used. Then, the third sentence states that only one compliance method can be used. There may be a slight different in emphasis in the three sentences, but all three aren't necessary. The second and third sentences both say that one and only method can be applied to a project. We prefer the third sentence because it states most clearly that more than one method cannot be applied to a project. If special circumstances arise, the code official has authority under Sections 104.10 and 104.11 to approve modifications and alternative methods of design.

Cost Impact: This code change proposal will not increase the cost of construction.

EB4-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

301.1-EB-TRAXLER.doc

EB5 – 13

504.1.1 (NEW)

Proponent: David S. Collins, FAIA, The Preview Group, Inc., representing The American Institute of Architects

Add new text as follows:

504.1 Scope. Level 2 *alterations* include the reconfiguration of space, the addition or elimination of any door or window, the reconfiguration or extension of any system, or the installation of any additional equipment.

504.1.1 Except where aisles required in Groups B and M, table seating per Sections 1017.3 and 1017.4 of the *International Building Code* or assembly seating per Section 1028 of the *International Building Code*, are reconfigured, the movement, addition or removal of furniture, movable partitions less than 5 feet 9 inches in height, or fixtures within a space shall not be considered reconfiguration of space.

Reason: Reconfiguration of a space can occur simply by movement of furniture. It isn't the intent of the IEBC to require that furniture rearrangement be included as an alteration, except where the IBC specifically limits aisles, table seating or assembly seating. By this change the rearrangement of furniture is not a trigger for application of the requirement for Level 2 Alterations.

Cost Impact: This code change proposal will not increase the cost of construction.

EB5-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

504.1.1 (NEW)-EB-COLLINS.doc

EB6 – 13

505.1

Proponent: Charles S. Bajnai, Chesterfield County, VA, ICC Building Code Action Committee

Revise as follows:

505.1 Scope. Level 3 *alterations* apply where the *work area* exceeds 50 percent of the aggregate ~~area of the building~~ building area of all stories in the building.

Reason: This proposal is submitted by the ICC Building Code Action Committee (BCAC). The BCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance an assigned International Code or portion thereof. This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. Since its inception in July, 2011, the BCAC has held 6 open meetings and numerous workgroup calls which included members of the BCAC as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: <http://www.iccsafe.org/cs/BCAC/Pages/default.aspx>.

This is the BCAC's attempt to clarify the scoping provisions for level 3 alterations. Some code users claim that the differing phrases used relative to area within the IEBC is confusing when those phrases are not one of the defined phrases. The BCAC believes that concern can best be addressed by referring to the defined term/phrase "building area" instead of the currently used phrase "aggregate area of the building". Because the phrase "building area" is already defined, by embedding that phrase in the modified text, the concerns of confusion and lack of consistency will be eliminated without changing the original intent. The BCAC is also aware that the current language located within IEBC Sections 410.4, 410.6, and 410.8.9 would benefit from a change to mimic the language being proposed by this code change, but cannot propose those changes at this time because those sections are located within the Group A changes. It is the intent of the BCAC to propose corresponding changes to those sections in the next code change cycle.

Cost Impact: This code change proposal will not increase the cost of construction.

EB6-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

505.1-EB-BAJNAI-BCAC.doc

EB7 – 13

505.1

Proponent: David S. Collins, FAIA, The Preview Group, Inc., representing The American Institute of Architects

Revise as follows:

505.1 Scope. Level 3 *alterations* ~~apply~~ include the reconfiguration of space, where the ~~work~~ reconfigured area exceeds 50 percent of the aggregate area of the building, ~~and shall include the reconfiguration or extension of any system that serves more than 50 percent of the aggregate area of the building.~~

Reason: In a separate change the definition of "work area" is being removed from the IEBC because it's lack of specificity and the confusion it causes when used in this section. We have submitted a series of changes to provide the type of direction needed to make the code more effective. This language is proposed to provide the needed guidance in Section 505.1 for what is within the scope of a Level 3 alteration.

Cost Impact: There is no cost impact associated with this change.

EB7-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

505.1-EB-COLLINS.doc

EB8 – 13

602.3 (New)

Proponent: Rebecca Morley, National Center for Healthy Housing

Add new text as follows:

602.3 Moisture and Mold. Surfaces such as but not limited to wood, textiles, paint, cellulose insulation, and paper, including paper-faced gypsum board, shall have no signs of excessive moisture after the material has been repaired. Materials that are discolored or deteriorated by mold or mildew shall be cleaned, dried and repaired and the underlying cause shall be determined and corrected. If the material is structurally unsound it shall be removed and replaced and the underlying cause shall be determined and corrected.

Reason: Mold typically grows in buildings affected by water damage. According to the Institute of Medicine of the National Academies' *Damp Indoor Spaces and Health* (2004), mold and damp indoor environments are associated with asthma symptoms in sensitized persons, coughing, wheezing, and upper respiratory tract symptoms. See www.nap.edu/books/0309091934/html/

In December 2007, the National Center for Healthy Housing (NCHH) and the U.S. Centers for Disease Control and Prevention (CDC) convened an Expert Panel consistent with National Institute of Health guidelines to assess the effectiveness of various interventions to make homes healthier and safer. NCHH and CDC published the report of the experts in January 2009. See www.nchh.org/LinkClick.aspx?fileticket=2lvaEDNBldU%3d&tabid=229 for the full report.

The Expert Panel reviewed five peer-reviewed research studies on the issue of mold and allergens and concluded that "when implemented together, eliminating moisture intrusion and leaks and removal of moldy items were found to be effective in reducing asthma triggers and reducing exposures." Other provisions of the IPMC address eliminating moisture intrusion. But no provisions require action on building materials with chronic moisture issues including those materials that have failed beyond repair.

This proposal implements the Expert Panel's recommendation while providing flexibility in response to actual conditions – repair for reparable material, replacement for failed material. To ensure the health of the building's occupants, mitigation of moisture problems must be a part of the code.

Cost Impact: This code change proposal will increase the cost of maintenance.

EB8-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

602.1-EB-MORLEY.doc

EB9 – 13

602.3, 702.4 (NEW), 702.5 (NEW)

Proponent: Carl Baldassarra, P.E., Chair, ICC Code Technology Committee
(cbaldassarra@rjagroup.com)

Revise as follows:

602.3 Glazing in hazardous locations. Replacement glazing shall be as required for new installations. Replacement glazing in hazardous locations shall comply with the safety glazing requirements of the *International Building Code* or *International Residential Code* as applicable.

Exception: Glass block walls, louvered windows, and jalousies repaired with like materials.

Add new text as follows:

702.4 Window opening control devices. In Group R-2 or R-3 buildings containing dwelling units, window opening control devices complying with ASTM F2090 shall be installed where an existing window is replaced and where all 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. The top of the sill of the window opening is at a height less than 36 inches (915 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 (22.86 m) 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 F2090.

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, replacement windows shall be exempt from the requirements of Sections 1029.2, 1029.3 and 1029.5 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.

Reason: This proposed change is a result of the CTC's investigation of the area of study entitled "Child Window Safety". The scope of the activity is noted as:

To evaluate the necessity of developing code proposals for the inclusion of requirements dealing with the conditions, circumstances and devices for window safety which could reduce the number of falls by children to surfaces below.

The purpose of this proposal is to coordinate the repair and alteration provisions of the IEBC with the changes approved to the IBC/IEBC in the 2012 Group A cycle. Code changes G225-12 and G227-12 were approved as modified by public comment to revise Section 3407 of the IBC (IEBC Section 406 – see below). In addition, Code change G201-12 last cycle removed the existing building provisions from Chapter 34 of the IBC in favor of a reference to the IEBC. This action was subsequently affirmed by the ICC Board as this was a code change related to I-Code scoping.

The IEBC includes 3 compliance methods for existing buildings:

- Prescriptive compliance per Chapter 4
- Work area compliance per Chapters 5 – 13
- Performance compliance per Chapter 14

As noted above, the prescriptive compliance provisions of Chapter 4 have been updated based on the approved code changes noted. Since there are no specific performance provisions in Chapter 14 for windows, this leaves the work area method of Chapters 5 – 13 in need of correlation. The correlation is as follows:

- Chapter 6 Repairs. The approved provisions in Chapter 4 of the IEBC only apply where the entire window is removed. As such, the provisions are not applicable to routine repairs such as the repair of a pane of broken glass. The revised text of Section 602.3 stipulates that only the glazing is required to comply with new construction requirements.
- Chapter 7 Alteration Level 1. In accordance with Section 503, an Alteration Level 1 is one where there is a removal or replacement of existing elements. This of and by itself may not be a complete replacement of the window frame and glass. As such, the proposed new text in Section 702.4 triggers the application of the provisions where “an existing window is replaced”.
- Chapter 8 Alteration Level 2. This code change does not include language specifically dealing with Alteration Level 2 as the provisions proposed in Chapter 7 cover Level 2 alterations by virtue of the text of Section 801.2 which requires Level 2 alterations to comply with the requirements of Chapter 7 for Level 1.
- Chapter 9 Alteration Level 3. Similar to Chapter 8 noted above, this code change does not include language specifically dealing with Alteration Level 3 as the provisions proposed in Chapter 7 cover Level 3 alterations by virtue of the text of Section 901.2 which requires Level 3 alterations to comply with the requirements of Chapters 7 and 8.

For reference, the approved IEBC text is as follows:

IEBC SECTION 406 GLASS REPLACEMENT AND REPLACEMENT WINDOWS

406.1 Replacement glass. *The installation or replacement of glass shall be as required for new installations.*

406.2 Replacement Window Opening Control Devices. *In Group R-2 or R-3 buildings containing dwelling units, window opening control devices complying with ASTM F2090 shall be installed where an existing window is replaced and where all 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. *The top of the sill of the window opening is at a height less than 36 inches (915 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 Section 1029.2.

Exceptions:

1. *Operable windows where the top of the sill of the window opening is located more than 75 feet (22.86 m) 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 F2090.*

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 1029.2, 1029.3 and 1029.5 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.*

This proposal is submitted by the ICC Code Technology Committee. The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as “areas of study”. Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website:

<http://www.iccsafe.org/cs/CTC/Pages/default.aspx>. Since its inception in April/2005, the CTC has held twenty-five meetings - all open to the public. In 2012, three of the 25 face-to face meetings were held. In addition to the CTC meetings, the CTC established Study Groups (SG) of interested parties for each of the areas of study. These SG's are responsible for reviewing the available information and making recommendations to the CTC. All totaled, the SG's held over 70 conference calls in 2012.

Cost Impact: This code change proposal will not increase the cost of construction.

EB9-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

602.3-EB-BALDASSARRA-CTC.doc

EB10 – 13

603.1, 604.1, 605.1, 703.1, 704.1

Proponent: Charles S. Bajnai, Chesterfield County, VA, ICC Building Code Action Committee

Revise as follows:

603.1 General. Repairs shall be done in a manner that maintains the level of fire protection provided before the repair was undertaken.

604.1 General. Repairs shall be done in a manner that maintains the level of protection provided for the means of egress before the repair was undertaken.

605.1 General. Repairs shall be done in a manner that maintains the level of accessibility provided before the repair was undertaken.

703.1 General. Alterations shall be done in a manner that maintains the level of fire protection provided before the alteration was undertaken.

704.1 General. Alterations shall be done in a manner that maintains the level of protection provided for the means of egress before the alteration was undertaken.

Reason: This proposal is submitted by the ICC Building Code Action Committee (BCAC). The BCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance an assigned International Code or portion thereof. This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. Since its inception in July, 2011, the BCAC has held 6 open meetings and numerous workgroup calls which included members of the BCAC as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: <http://www.iccsafe.org/cs/BCAC/Pages/default.aspx>.

The current text is missing the language that tells users of the code to what level the various subjects are to be maintained. The intent that a modification should not make a condition worse than before the work started is clear. That concept is stated in IEBC sections 603.1, 604.1, 605.1, 703.1 and 704.1. By adding the proposed text to each section, that original intent is not only made clearer, it is done so in a consistent manner.

Cost Impact: This code change proposal will not increase the cost of construction.

EB10-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

603.1-EB-BAJNAI-BCAC.doc

EB11 – 13

603.2(New)

Proponent: Andy Williams, Metal Construction Association

Add new text as follows:

603.2 Roof Assembly Fire Classification. Repairs made to roof coverings shall not reduce the fire classification that was required when originally installed.

Exception: Change of occupancy for historic buildings shall comply with Section 1205.5

Reason: The text is to clarify that the roof covering is required to comply with the fire classification mandated by the IBC or the IRC under which the roof covering was initially installed. For repairs to a roof covering, the repairs are required to maintain the roof covering fire classification required by the IRC when the roof covering was initially installed.

The exception is necessary since the IEBC provides a variance for historic buildings.

Cost Impact: The code change proposal will not increase the cost of construction.

EB11-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

603.2(NEW)-EB- WILLIAMS.DOC

EB12 – 13

608.3(New), 708(New)

Proponent: Andrew Scott Jones, President, A Better Deal Heating and Air Conditioning, Inc., a Texas Corporation, representing self

Add new text as follows:

608.3 Cleanouts. Where new condensate drain lines are installed as a result of the repair, such condensate drain lines shall be configured to permit the clearing of blockages and performance of maintenance without requiring the drain line to be cut.

SECTION 708 **MECHANICAL**

708.1 Cleanouts. Where new condensate drain lines are installed as a result of a level 1 alteration, such condensate drain lines shall be configured to permit the clearing of blockages and performance of maintenance without requiring the drain line to be cut.

Reason: This language is identical to the language of M 32-12 which was recently adopted In Portland, Oregon. We are advised by JB Engineering that this language will be in the IMC and IPC for 2015.

Similar language has been submitted to the IRC.

Cost Impact: The code change will increase the cost of construction, totaling an estimated \$15.00 per unit.

EB12-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

XXX-EB-JONES.doc

EB13 – 13

610 (NEW)

Proponent: Jeremiah Williams, U.S. Department of Energy (jeremiah.williams@ee.doe.gov)

Revise as follows:

SECTION 610

ENERGY EFFICIENCY

610.1 General. Repairs to the building thermal envelope, mechanical systems, water heating systems, electrical systems or lighting systems shall meet the International Energy Conservation Code where the provisions therein are directly applicable to the repair(s) being undertaken.

Reason: This proposal requires equipment installed during repairs to meet the provisions of the International Energy Conservation Code (IECC) and insulation to be upgraded to current 2012 IECC requirements when structural components are exposed.

Forty percent of U.S. energy use and seventy percent of U.S. electrical use are associated with existing buildings. As such, existing buildings represent a significant opportunity to save energy, reduce operating costs, and enhance the environment. Section 610 of the International Existing Buildings Code (IEBC) currently provides no guidance on energy efficiency, nor does it reference the 2012 IECC. However, there are instances in which repairs can and should include consideration of energy efficiency. For instance, a storm could damage skylights or a glazed storefront necessitating repair of the fenestration assemblies or a flooding event could necessitate the repair of dampers associated with a duct system.

Those situations would likely result in the removal of the damaged fenestration or dampers and their replacement to address “the restoration to good or sound condition of those parts of the building for the purpose of maintenance”. Section 502.1 further clarifies that such replacement of damaged materials would be considered a repair. It is recognized that not all repairs should or could comply with the IECC, such as normal repairs to HVAC equipment, electrical systems or building envelope assemblies. To address those situations the proposed text clarifies that the provision in the IECC must be directly applicable to the repair. So for instance patching a masonry wall, repairing or replacing siding, fixing an electrical lighting control problem or repairing a boiler or chiller that has stopped working would not be impacted since there are no specific provisions in the IECC that are directly applicable to those situations.

There will be an increase in cost to the degree that repairs that previously were not required to meet the energy code will now be required to meet the energy code.

Cost Impact: The code change proposal will increase the cost of construction in some buildings.

EB13-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

610 (NEW)-EB-WILLIAMS.doc

EB14 – 13

702.1, 702.2, 702.3

Proponent: Jerry R. Tepe, FAIA, JRT•AIA Architect, representing American Institute of Architects

Delete without substitution as follows:

~~**702.1 Interior finishes.** All newly installed interior wall and ceiling finishes shall comply with Chapter 8 of the *International Building Code*.~~

~~**702.2 Interior floor finish.** New interior floor finish, including new carpeting used as an interior floor finish material, shall comply with Section 804 of the *International Building Code*.~~

~~**702.3 Interior trim.** All newly installed interior trim materials shall comply with Section 806 of the *International Building Code*.~~

Reason: I realize these sections were just added in 2009, but they are repetitive of the following section which already requires all new work to comply with the *International Building Code*. It becomes confusing when single requirements are individually repeated for compliance and can lead to a misconception that other items are not required to comply. The code does not need to be filled with repetitive, duplicate requirements.

Cost Impact: This code change proposal will not increase the cost of construction.

EB14-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

702.1-EB-TEPE.doc

EB15 – 13

702.4 (NEW), 702.5 (NEW)

Proponent: Jeff Inks, Window & Door Manufacturers Association (jinks@wdma.com)

Revise as follows:

702.1 Interior finishes. All newly installed interior wall and ceiling finishes shall comply with Chapter 8 of the *International Building Code*.

702.2 Interior floor finish. New interior floor finish, including new carpeting used as an interior floor finish material, shall comply with Section 804 of the *International Building Code*.

702.3 Interior trim. All newly installed interior trim materials shall comply with Section 806 of the *International Building Code*.

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 F2090 shall be installed where an existing window is replaced and where all 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. The top of the sill of the window opening is at a height less than 36 inches (915 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 (22.86 m) 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 F2090.

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 1029.2, 1029.3 and 1029.5 of the *International Building Code* and Sections R310.1.1, R310.1.2, R310.1.3 and R310.2 of the *International Residential Code* accordingly 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.

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

Reason: The intent of this proposal is to ensure window replacements meet the requirements for new construction for window fall protection and emergency escape and rescue openings when practical and avoid discouraging or preventing the replacement of windows when it is not -- provided there is no reduction in existing safety.

With respect to the proposed provisions for window opening control devices on replacement windows, they are intended to ensure window fall protection is provided where required for new construction when windows, including sash and frame, are replaced. The proposed WOCD provisions have already been approved for Chap. 4 of the IEBC (during the Group A proceedings) and are also being proposed for IRC Appendix J by us and the ICC CTC.

With respect to the proposed emergency escape and rescue opening provisions, they are based on Minnesota's residential code which actually (and effectively) incorporates them into the main body of the code in Chapter 3, under Section 310.1. The same provisions have also already been approved for Chap. 4 of the IEBC (during the Group A proceedings) and we, as well as the ICC CTC are also proposing the same provisions for IRC Appendix J (in addition to this proposal for the IEBC). Most importantly, it's important to note that the provisions do not allow for any decrease in safety and will help ensure improvements in safety can be made.

More specifically, the intent of this proposal is to ensure that the IRC does not discourage or prevent improvements in emergency escape and rescue openings, especially for fire safety, in older residential occupancies by requiring replacement windows to meet all of the provisions of Section 310 when doing so can only be accomplished by increasing the size of the rough opening or altering the interior wall.

Because many of these older buildings were constructed under codes that did not include the same emergency escape and rescue opening provisions that the IBC or IRC now require for new construction, the only way to fully meet all of the requirements of IBC Section 1029 or IRC Section 310 for new construction if required when windows are replaced, is to enlarge the rough opening and/or make significant alterations to the interior wall in order to accommodate any increase in window size or lowering of a sill.

At the very least, the significant cost and design challenges of altering the rough opening or interior wall can discourage or prevent window replacement and at worst can discourage or prevent the replacement of older windows that are harder to operate or inoperable all together because of their age or poor maintenance and, that are significantly less energy efficient. When that happens, improvements to safety as well as to energy efficiency are needlessly compromised.

Furthermore and on the whole, while some bedroom windows in older homes may not provide the full clear opening that is required for new construction or may have a sill height above 44 inches, they nonetheless still provide a viable emergency and escape rescue opening which is the primary intent of the code. Replacement of these windows with the same type of operating window or other type that can provide an equal or greater clear opening than the existing window -- even if they do not fully meet the clear opening or sill height requirements of IBC Section 1029 or IRC Section 310 accordingly -- is always an improvement in safety, especially when a replacement opening can provide a larger clear opening than the existing window. Such improvements in safety should not be discouraged or prevented by overly onerous requirements for replacement windows.

This proposal will help ensure that doesn't happen by providing limited exceptions to the requirements of IBC Section 1029 and IRC Section 310 accordingly that can only be applied when certain conditions are met and that as already noted, will not result in a decrease in safety.

The requirements for new construction that emergency escape and rescue openings be provided as well as the operational requirements of IBC Section 1029 and IRC Section 310 respectively are maintained and still applicable to replacement windows.

Cost Impact: This code change proposal will not increase the cost of construction.

EB15-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

702.4 (NEW)-EB-INKS.doc

EB16 – 13

705 (NEW)

Proponent: Rebecca Morley, National Center for Healthy Housing

Add new text as follows:

SECTION 705 **CARBON MONOXIDE ALARMS**

705.1 General. Carbon monoxide alarms shall be installed in existing Group I or R occupancies in accordance with Section 1103.9 of the *International Fire Code*.

Reason: Carbon monoxide (CO) is an odorless, tasteless, invisible gas that kills more than 300 people in homes each year. Thousands more are admitted to the hospital with carbon monoxide poisoning. This is a serious issue that affects people nationwide in all regions of the country. The International Residential Code requires CO alarms for residences with fuel-fired appliances or attached garages. This change would make the IEBC consistent with the IRC.

The following states have required CO alarms in existing residences: Alaska, California, Colorado, Illinois, Massachusetts, Michigan, Minnesota, Montana, New Jersey, New York, North Carolina, Oklahoma, Oregon, Rhode Island, Vermont and Wisconsin. Deaths from CO are spread throughout the country as residents unwittingly use dangerous methods to stay warm in unusually cold weather.

Cost Impact: Yes, this code change proposal will increase the cost of property maintenance. A carbon monoxide alarm typically costs approximately \$25.

EB16-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

705 (NEW)-EB-MORLEY.doc

EB17 – 13

705.1, 905.1, 905.4 (NEW), 905.4.1 (NEW), 1005.2 (NEW), 1105 (NEW)

Proponent: Gene Boecker, Code Consultants, Inc., representing self

705.1 General. A *facility* that is altered shall comply with the applicable provisions 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. A facility shall not be altered such that the existing accessible means of egress is reduced.

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 added provided in existing buildings undergoing less than a level 3 alteration.
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.

905.1 General. The means of egress shall comply with the requirements of Section 805 except as specifically required in Sections 905.2 and ~~905.3~~ through 905.4.

905.4 Accessible means of egress. Not less than one accessible means of egress shall be provided in accordance with Section 905.4.1 and Section 1007 of the International Building Code in alterations affecting an area containing a primary function and in additions.

Exceptions:

1. Level 1 and Level 2 alterations.
2. Historic buildings.
3. Accessible means of egress is not required to exceed 20 percent of the costs of the alterations including any costs associated with compliance for Section 410.7. Where the costs to provide accessibility cannot accommodate compliance with both this Section and Section 410.7, Section 410.7 shall take precedence.
4. Alterations limited solely to windows, hardware, operating controls, electrical outlets and signs.
5. Alterations limited solely to mechanical systems, electrical systems, installation or alteration of fire protection systems and abatement of hazardous materials.
6. Alterations undertaken for the primary purpose of increasing the accessibility of a facility.
7. Altered areas limited to Type B dwelling and sleeping units

905.4.1 Means of egress through an existing building. Where the accessible means of egress from an portion of a building being alteration or addition requires occupants to egress through portions of existing building, compliance with Section 1007 of the International Building Code is required through the existing building, unless technically infeasible. Where compliance with this provision is technically infeasible, the accessible means of egress through the existing building shall provide access to the maximum extent technically feasible.

1005.2 Accessible means of egress. Where a change of occupancy includes a Level 3 Alteration to an area containing a primary function, at least one accessible means of egress shall be provided in compliance with Section 905.

SECTION 1105 **MEANS OF EGRESS**

1105.1 General. The means of egress shall comply with the requirements of Section 905.4.1 and Chapter 10 of the *International Building Code*.

Reason: During last code change cycle, a proposal similar to this was presented. The committee felt it was too confusing and that it did not address the concept of disproportionate cost effectively. This proposal seeks to address those issues more clearly. Where possible the language was changed to be uniform among the various codes and sections.

Common sense should dictate that where major alterations occur consideration for at least one accessible means of egress should be provided. Additionally, the simple idea that an accessible means of egress should be intentionally denied to a segment of the population does not seem appropriate. As the codes now stand, a building can be completely gutted with only the facades remaining and no accessible means of egress must be provided.

It is important to remember that the new construction requirements in the IBC only require a maximum of two accessible means of egress as noted in Section 1007.1 (assuming travel distance compliance is accommodated).

With the deletion of Chapter 34 from the IBC it is incumbent on the IEBC to address these issues.

705.1: A change was made to the second exception to indicate that means of egress requirements for existing building are not required for lesser alterations, similar to exception #3.

905.1: A change is made to address the added section.

905.4: A new section is added to specifically address accessible means of egress. Rather than the blanket statement in Section 1007.1 of the building code, this section will address the scope and extent of work necessary to address accessible means of egress for existing buildings. It directs the code user to Section 1007 for the technical requirements when an accessible means of egress is necessary as well as clearly delineate that when an alteration occurs affecting an area containing a primary function, an accessible means of egress must be provided. The threshold is limited to alterations affecting a primary function because that threshold relates to the importance of changes to an area and is understood due to its relationship with the Federal accessibility regulations for the past 20 years. The intent is to provide at least one accessible means of egress.

905.4, exception #1: Alterations with some magnitude should address accessible means of egress; if the alteration is relatively small then there is reason to limit the requirement. Even if the accessible means of egress would not be a disproportionate cost (exception #2), in small alterations the area required to create the accessible means of egress may be disproportionate to the space allowed for the alteration. If so, it may "steal" too much space from an otherwise small area and would not be appropriate.

905.4, exception #2: The exception makes it clear that an accessible means of egress is not required for alterations to historic buildings. To do so, may alter the historic character. While an accessible means of egress should be provided wherever possible, the exception recognizes that in historic buildings the ability to make the necessary changes to comply may be detrimental to the historic integrity.

905.4, exception #3: Existing buildings come in all shapes and sizes and the work proposed for creating an accessible means of egress can be a small part or major portion of the effort. This exception identifies that and uses the same 20% rule for the accessible route relative to the primary use area. The exception also clarifies that where funds cannot provide the accessible route and an accessible means of egress, it is more important to provide the accessible route. This maintains consistency with the Federal requirements for alterations affecting an area containing a primary function.

905.4, exceptions #4, #5, #6, #7: These are the same as exceptions #2, #3, #4 and #5 in Section 705.2 for alterations affecting an area containing a primary function. These are included here for consistency.

905.4.1: If an addition is designed such that the means of egress must enter the existing building then the general rule is that the egress design in the existing building must meet the requirements for egress as it passes through the existing building. This is simply the continuation of the means of egress from the addition for egress width, panic hardware (as applicable) and similar concerns. The same should be true for the design of the accessible means of egress. If one of the accessible egress paths leads through the existing building, it too needs to meet/continue the level of protection as designed in the addition. The limitation to this is that if the effort to make the existing means of egress accessible is "technically infeasible" then work should be done to what is possible. One example of this may be making sure that the slopes along the egress path in the existing building's corridor are proper even if the width cannot be altered to allow the proper maneuverability approach to the exit door.

1005.2: A change of occupancy by itself is not sufficient to trigger the requirement for an accessible means of egress. However, if a change in occupancy also includes a Level 3 Alteration, then it should be subject to the same requirements as any other Level 3 Alteration. This provision is added as a clarification to that effect.

1105.1: Chapter 11 (Additions) does not address means of egress specifically. A reference to compliance with the means of egress provisions in Chapter 10 of the IBC is included. This is similar to the first sentence in Section 402.1 which requires additions to comply with the requirements of the IBC for new construction but more specific as is done for the "non-prescriptive" methods. The added language is inserted before the accessibility section to make it consistent with its placement in other chapters.

The codes identify the minimums necessary for life safety. These proposed changes provide the disabled community with similar levels of life safety to the general public and still sets reasonable thresholds based on the extent of work for the project. With the adoption of the new 2010 ADA Standards for Accessible Design, it is clear that the IBC will set the standard for accessible means of egress. This organization has a responsibility to act in the best interests of the general public in all its diversity. Where major changes are proposed to an existing building due to a large alteration or an addition, it should be the desire of the ICC to incorporate appropriate accessible means of egress where possible.

Cost Impact: The code change proposal will increase the cost of construction in many situations but may have no effect in others.

Cost Impact Discussion: It is not easy to address what costs could be affecting this due to the myriad possible configurations for a building. A building that is a single story at grade may have no additional cost. Because an accessible entrance would be required, it would function as the accessible means of egress. Hence, a single story building with a total internal renovation may be unaffected cost-wise by this proposal.

The main costs are those involving an elevator of adequate size on emergency standby power and a two-way communications system. If the elevator is too small, the costs to alter that would be disproportionate and it would not be required according to IEBC Section 905.4, exception #3.

At the opposite end of the spectrum could be a nine story high-rise building that is being gutted on five floors. It would be required to have an accessible route to the upper floors. The IFC would require the emergency power for fire fighter operation so that cost for that part of the accessible means of egress is covered. In that situation only the two-way communication systems costs would apply.

Buildings without elevators would likely similarly fall into the category of disproportionate costs since the addition of an elevator can be costly. Moreover, the accessible means of egress is tied into alterations that affect an area containing a primary function. This already has accessibility requirements for access such as toilet room and accessible route renovations. If the costs to add an elevator are within the 20 percent cap but the cost to add emergency standby power would be beyond the 20 percent, the exceptions in IEBC Section 905.4, exception #3 make it clear that the costs for access take precedence over the costs for egress and that combined they are not required to exceed the 20 percent figure.

In many cases the 20 percent cap will be met by the required access features and there may be no funds remaining for an accessible egress. The important thing is that we should recognize the need to provide a means of egress for all of the occupants within the building to the greatest extent possible. No definitive numbers can be provided because the variations are so many. This discussion attempts to address only the possibilities.

EB17-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1007.1 #1-E-BOECKER.doc

EB18 – 13

705.1.6

Proponent: Carl Baldassarra, P.E., Chair, ICC Code Technology Committee

Delete without substitution as follows:

705.1.6 Performance areas. ~~Where it is technically infeasible to alter performance areas to be on an accessible route, at least one of each type of performance area shall be made accessible.~~

Reason: The exception for performance area does not make a lot of sense because there are typically not multiple performance areas of the same type. If access to the stage or pit is technically infeasible, how would you do even one? A correlative proposal was also been proposed and approved for IBC 3411.8.6 and IEBC 410.8.6.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: <http://www.iccsafe.org/cs/CTC/Pages/default.aspx>. Since its inception in April/2005, the CTC has held twenty five meetings - all open to the public.

Cost Impact: This code change proposal will not increase the cost of construction.

EB18-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

705.1.6-EB-BALDASSARRA-CTC.doc

EB19 – 13

705.1.8, 806.3

Proponent: Carl Baldassarra, P.E., Chair, ICC Code Technology Committee

Revise as follows:

705.1.8 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 and Chapter 9 of the *International Building Code* for visible alarms apply only to the quantity of the spaces being altered.

Revise as follows:

806.3 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 and Chapter 9 of the *International Building Code* for visible alarms apply only to the quantity of spaces being added.

Reason: Alarms are required to be altered only when the system is being altered. The language in IEBC should be deleted to be consistent with this revision previously made to IBC 3411.8.7. (ADA 223.1.1 & 224.1.1)

IBC 3411.8.7 (IEBC [B] 410.8.7) 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 or added, the requirements of Section 1107 for *Accessible* units apply only to the quantity of spaces being altered or added.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as “areas of study”. Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: <http://www.iccsafe.org/cs/CTC/Pages/default.aspx>. Since its inception in April/2005, the CTC has held twenty five meetings - all open to the public.

Cost Impact: This code change proposal will not increase the cost of construction.

EB19-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

705.1.8-EB-BALDASSARRA-CTC.doc

EB20 – 13

705.1.10

Proponent: Carl Baldassarra, P.E., Chair, ICC Code Technology Committee

Revise as follows:

705.1.10 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, 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.

Reason: This proposal will coordinate with ADA 216.8. The intent of this proposal is to add directional signage requirements for family/assisted-use bathrooms when the existing bathrooms are not fully accessible. The same proposal was made and approved for IBC Section 3411.8.11/IEBC 410.8.11.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: <http://www.iccsafe.org/cs/CTC/Pages/default.aspx>. Since its inception in April/2005, the CTC has held twenty five meetings - all open to the public.

Cost Impact: This code change proposal will not increase the cost of construction.

EB20-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

705.1.10-EB-BALDASSARRA-CTC.doc

EB21 – 13

705.1, 705.1.15 (NEW)

Proponent: Carl Baldassarra, P.E., Chair, ICC Code Technology Committee
(cbaldassarra@rjagroup.com)

Revise as follows:

705.1 General. A *facility* that is altered shall comply with the applicable provisions in Sections 705.1.1 through ~~705.1.14~~ 705.1.15, 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.

705.1.15 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 the International Building Code, Section 1110.4.7.

Reason: The accessibility requirements for new construction for Amusement rides have been proposed to the IBC as part of a coordination effort with the 2010 ADA Standard for Accessible Design and 2009 ICC A117.1 Chapter 11, Recreation. The overall intent is to provide access to recreational facilities so that persons with mobility impairments can participate to the best of their ability. The requirements are not intended to change any essential aspects of that recreational activity.

The intent of this public comment is to match the provisions for existing amusement rides proposed and approved for IBC Chapter 34 and IEBC Chapter 4. This way the provisions for existing buildings will be consistent between Chapter 4 and 7 of the IEBC. Technical criteria can be found in the 2009 edition of the ICC A117.1, Section 1102 and includes accessible routes, load and unload areas, wheelchair spaces on rides, seats for transfer, and transfer devices.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: <http://www.iccsafe.org/cs/CTC/Pages/default.aspx>. Since its inception in April/2005, the CTC has held twenty five meetings - all open to the public.

Cost Impact: This code change proposal will not increase the cost of construction. This will be required by the 2010 ADA Standard for Accessible Design.

EB21-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

705.1-EB-BALDASSARRA-CTC.doc

EB22 – 13

705.2

Proponent: Hope Reed, New Mexico Governor's Commission on Disability (hope.reed@state.nm.us)

Revise as follows:

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 ~~or~~ 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*.

(Portions of text not shown remain unchanged)

Reason: See this same change for IEBC 410.7 and IBC 3411.7

Modify one word to comply with **2010 ADA Standards** section 35.151(b)(4) Path of travel, and comply with **2010 ADA**

Standards section 36.403(a)(1) Path of travel.

People with disabilities need bathroom renovations and drinking fountain renovations along the "Path of Travel." When there is a choice, the easier solution is to change just the drinking fountains and look no further. The restroom renovations can be ignored. This does not benefit people with disabilities.

Those old restrooms need to be fixed and when full accessibility is not possible, some attempt at accessibility will provide a benefit to many. Widening the restroom door, installing a raised toilet, installing grab bars, and removing toilet partitions can be easy access renovations to comply with the intent of **2010 ADA**. Restroom and drinking fountain renovations need to be considered on an equal basis to comply with IEBC 705.1 where it states, "*alterations* shall provide access to the maximum extent that is technically feasible."

Cost Impact: The cost will not exceed 20% of the cost for the alteration as stated in IEBC 705.2 Exception 1. Renovations should include equal consideration of both restroom renovations and drinking fountain renovations.

The IEBC needs to help building code officials bring alteration projects closer to the 20% dollar amount. Restroom and drinking fountain renovations need to be considered on an equal basis to comply with IEBC 705.1 where it states, "*alterations* shall provide access to the maximum extent that is technically feasible."

EB22-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

705.2-EB-REED.doc

EB23 – 13

202, 706 (NEW)

Proponent: Charles S. Bajnai, Chesterfield County, VA, ICC Building Code Action Committee

Add new definitions as follows:

SECTION 202

GENERAL DEFINITIONS

REROOFING. The process of recovering or replacing an existing roof covering. See “Roof recover” and “Roof replacement.”

ROOF RECOVER. The process of installing an additional roof covering over a prepared existing roof covering without removing the existing roof covering.

ROOF REPAIR. Reconstruction or renewal of any part of an existing roof for the purposes of its maintenance.

ROOF REPLACEMENT. The process of removing the existing roof covering, repairing any damaged substrate and installing a new roof covering.

Add new text as follows:

SECTION 706

REROOFING

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.

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.

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.

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.

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 counterflashings shall not be reinstalled where rusted, damaged or deteriorated. Aggregate surfacing materials shall not be reinstalled.

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.

Reason: This proposal is submitted by the ICC Building Code Action Committee (BCAC). The BCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance an assigned International Code or portion thereof. This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. Since its inception in July, 2011, the BCAC has held 6 open meetings and numerous workgroup calls which included members of the BCAC as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: <http://www.iccsafe.org/cs/BCAC/Pages/default.aspx>.

1. This language is copied from Section 1510 of the International Building Code and should be in the IEBC. Reroofing occurs on existing buildings.
2. The provisions for reroofing should be in the existing building code.

Cost Impact: This code change proposal will not increase the cost of construction.

EB23-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

NNN.NN-NAME

EB24 – 13

803.1

Proponent: David S. Collins, FAIA, The Preview Group, Inc., representing The American Institute of Architects

Revise as follows:

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.~~ alterations per Section 504.1.

Reason: Section 504.1 describes the scope of Level 2 alterations. Chapter 8 simply enumerates the items required for such alterations to conform to the code, and isn't required to restate what is included. The entire section should be eliminated, but for simplicity we are only referencing Section 504.1 for a scope, removing any conflict or confusion in the code.

Cost Impact: This code change proposal will not increase the cost of construction.

EB24-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

803.1-EB-COLLINS.doc

EB25 – 13

803.3, 803.3.1, 803.3.2

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Healthcare (John.Williams@DOH.WA.GOV) and Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee (cbaldassarra@rjagroup.com)

Revise as follows:

~~803.3 Smoke barriers. Smoke barriers in Group I-2 occupancies shall be installed where required by Sections 803.3.1 and 803.3.2~~

~~803.3.1 Compartmentation.~~ **803.3 Smoke Compartments.** In Group I-2 occupancies where the work area is on a story used for sleeping rooms for more than 30 patients, the story shall be divided into not less than two compartments by smoke barrier walls complying with Section 803.3.2 such that each compartment does not exceed 22,500 square feet (2093 m²) and the travel distance from any point to reach a door in the required smoke barrier shall not exceed 200 feet (60 960 mm). in accordance with Section 407.5 of the International Building Code as required for new construction.

Exception. Where neither the length nor the width of the smoke compartment exceeds 150 feet (45 720 mm), the travel distance to reach the smoke barrier door shall not be limited.

~~803.3.2 Fire-resistance rating. The smoke barriers shall be fire resistance rated for 30 minutes and constructed in accordance with the International Building Code.~~

Reason: This proposed change is a joint proposal from the ICC Ad Hoc Committee on Healthcare (AHC) and the Code Technology Committee (CTC). The scope of the AHC deals with Group I-2 hospitals (now Group I-2 Condition 2 as a result of approved code change G257-12) and the scope of the CTC's investigation of the area of study entitled "Care Facilities" addresses Group I-1 and Group I-2 Condition 1 (nursing homes).

Group I-2 hospitals and nursing homes are a unique environment which employ the defend in place strategy. When such an occupancy undergoes a substantial alteration, which is the case with a Level 2 Alteration where the space can be entirely configured, such work areas should be provided with a higher degree of fire safety. With a reference to Section 407.5 of the IBC, the current IEBC compartment size provisions (maximum 22,500 square feet in area and maximum 200 of travel) are maintained. In addition, by virtue of a reference to the IBC, a higher level of fire safety will be provided, as follows:

- The travel distance within the compartment will be limited to 200 feet while the current IEBC provides an exception which literally allows unlimited travel as a function of the physical size of the space.
- The smoke barrier rating will not be permitted to be reduced to 30 minutes, but rather will be required to meet the new construction requirements of the IBC which require a one hour rating.

This is a joint proposal submitted by the ICC Ad Hoc Committee for Healthcare and the ICC Code Technology Committee.

The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering, a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April 2011, the AHC has held 8 open meetings and over 150 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: <http://www.iccsafe.org/cs/AHC/Pages/default.aspx>.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. This proposal is submitted by the ICC Code Technology Committee. The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: <http://www.iccsafe.org/cs/CTC/Pages/default.aspx>. Since its inception in April/2005, the CTC has held twenty-five meetings - all open to the public. In 2012, three of the 25 face-to-face meetings were held. In addition to the CTC meetings, the CTC established Study Groups (SG) of interested parties for each of the areas of study. These SG's are responsible for reviewing the available information and making recommendations to the CTC. All totaled, the SG's held over 70 conference calls in 2012.

Cost Impact: The code change proposal will not increase the cost of construction.

EB25-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

803.3-EB-BALDASSARRA-WILLIAMS-ADHOC.doc

EB26 – 13

803.6 (NEW)

Proponent: Robert J. Davidson, Davidson Code Concepts, LLC, representing self (rjd@davidsoncodeconcepts.com) and David S. Collins, FAIA, The Preview Group, Inc. (dcollins@preview-group.com), representing The American Institute of Architects

Add new text as follows:

803.6 Fire-resistance ratings. Where approved by the code official, buildings where an automatic sprinkler system installed in accordance with Section 903.3.1.1 of the *International Building Code* has been added, and the building is now sprinklered throughout, the required fire-resistance ratings of building elements and materials shall be permitted to meet the requirements of the current building code. The building is required to meet the other applicable fire protection requirements of Chapter 9 of the *International Building Code*.

Plans, investigation and evaluation reports, and other data shall be submitted indicating which building elements and materials the applicant is requesting the code official to review and approve for determination of applying the current building code fire-resistance ratings. Any special construction features, conditions of occupancy, approved modifications or approved alternative materials, design and methods of construction, and equipment applying to the building that impact required fire-resistance ratings shall be identified in the evaluation reports submitted.

Reason: The topic of allowing the ability to apply sprinkler protection trade-offs that exist in the current code has been a matter of discussion in the code development arena for some time. How to apply the allowance for a potential reduction in fire-resistance ratings and in what code they belong have been discussed without a consensus.

The concept is that once a building without sprinkler protection has been sprinklered throughout, whether due to renovations or retroactive code application, the designer should be permitted to allow the same fire resistance rating provisions for new construction in an existing sprinklered building. The issue is how to provide for that application of code and ensure a proper review by the building code official is performed to ensure there are no impediments to granting an approval that may result in the reduction of existing levels of protection.

This proposal attempts to provide for that process by adding a new section to the IEBC under Section 806 Building Elements and Materials. The suggested language provides that once an existing building is sprinklered throughout and meets the other fire protection requirements of Chapter 9 of the IBC, plans, investigation and evaluation reports, and other data can be submitted seeking approval of the code official for the assignment of the new fire-resistance ratings which might me a reduction, or potentially an increase.

The suggested language also requires that any special construction features, conditions of occupancy, approved modifications or approved alternative materials, design and methods of construction, and equipment applying to the building that impact required fire-resistance ratings shall be identified in the evaluation reports submitted. This is to ensure special conditions are identified that may prevent a reduction in fire-resistance ratings.

Cost Impact: This code change proposal will not increase the cost of construction.

EB26-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

803.6 (NEW)-EB-DAVIDSON.doc

EB27 – 13

804.2.1

Proponent: Jeffrey M. Hugo, CBO, National Fire Sprinkler Association (hugo@nfsa.org)

Revise as follows:

804.2.1 High-rise buildings. In high-rise buildings, work areas ~~that have exits or corridors shared by more than one tenant or that have exits or corridors serving an occupant load greater than 30~~ shall be provided with automatic sprinkler protection ~~in~~ throughout the entire *work area* where the *work area* is located on a floor that has ~~a sufficient sprinkler water supply system from an existing standpipe or a sprinkler riser serving that floor.~~

Reason: This change would require a tenant doing Level 2 or 3 alterations to connect to the existing standpipe/sprinkler riser and install fire sprinklers throughout the work area. Currently, the IEBC only requires fire sprinklers when multiple tenants are in the same work area, use the same corridors or when the corridor exceeds 30 occupants.

Cost Impact: This code change proposal will not increase the cost of construction.

EB27-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

804.2.1-EB-HUGO.doc

EB28 – 13

804.2.1.1

Proponent: Jeffrey M. Hugo, CBO, National Fire Sprinkler Association (hugo@nfsa.org)

Revise as follows:

804.2.1.1 Supplemental automatic sprinkler system requirements. Where the *work area* on any floor exceeds 50 percent of that floor area, Section 804.2.1 shall apply to the entire floor on which the *work area* is located.

Exception: Occupied ~~T~~tenant spaces that are entirely outside the *work area*.

Reason: When the entire floor is sprinklered according to this section, a tenant space that is entirely outside the work area is exempt from retrofitting the space with fire sprinklers. Requiring a tenant that is outside the work scope to install fire sprinklers could bear undue financial burdens and disruptions. However, if the adjacent tenant space(s) are vacant or unoccupied during the Level 2 or 3 alterations, then the exception should not apply.

Cost Impact: This code change proposal will not increase the cost of construction.

EB28-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

804.2.1.1-EB-HUGO.doc

EB29 – 13

804.2.2

Proponent: Dave Frable, U.S. General Services Administration Public Buildings Service
(dave.frable@gsa.gov)

Revise as follows:

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.

Exceptions:

1. Work areas in Group R occupancies three stories or less in height.
2. If the building does not have sufficient municipal water supply for design and installation of a fire sprinkler system available ~~to the floor without installation of a new fire pump, at the site~~ 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*.

Reason: The intent of this code change is to attempt to address a concern that the municipal water supply must be available at the floor where the work area is located without the installation of a new fire pump. This code change revises the subject text such that if a municipal water supply is available at the building site, and the work area exceeds 50% of the floor area, the installation of a new fire pump if needed to supplement the necessary flow and pressure for the sprinkler system should not be the deciding factor to address the need to increase the current degree of public safety in existing buildings.

Cost Impact: This code change proposal will increase the cost of construction.

EB29-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

804.2.2-EB-FRABLE.doc

EB30 – 13

804.2.3

Proponent: Dave Frable, U.S. General Services Administration, Public Buildings Service
(dave.frable@gsa.gov)

Revise as follows:

804.2.3 Windowless stories. Work located in a windowless story, as determined in accordance with the *International Building Code*, shall be sprinklered where the *work area* is required to be sprinklered under the provisions of the *International Building Code* for newly constructed buildings and the building has a sufficient municipal water supply ~~without installation of a new fire pump~~ for design and installation of a fire sprinkler system available at the site.

Reason: The intent of this code change is to attempt to address a concern that the municipal water supply must be available at the floor where the work area is located without the installation of a new fire pump. This code change revises the subject text such that if a municipal water supply is available at the building site, and the work area exceeds 50% of the floor area, the installation of a new fire pump if needed to supplement the necessary flow and pressure for the sprinkler system should not be the deciding factor to address the need to increase the current degree of public safety in existing windowless buildings.

Cost Impact: This code change proposal will increase the cost of construction.

EB30-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

804.2.3-EB-FRABLE.doc

EB31 – 13

804.2.3, 804.2.4

Proponent: Jeffrey M. Hugo, CBO, National Fire Sprinkler Association (hugo@nfsa.org)

Revise as follows:

804.2.3 Windowless stories. Work located in a windowless story, as determined in accordance with the *International Building Code*, shall be sprinklered where the *work area* is required to be sprinklered under the provisions of the *International Building Code* for newly constructed buildings and the building has a sufficient municipal water supply ~~without installation of a new fire pump.~~ for design of an automatic sprinkler system.

804.2.4 Other required automatic sprinkler systems. In buildings and areas listed in Table 903.2.11.6 of the *International Building Code*, *work areas* that have exits or corridors shared by more than one tenant or that have exits or corridors serving an occupant load greater than 30 shall be provided with an automatic sprinkler system under the following conditions:

1. The *work area* is required to be provided with an automatic sprinkler system in accordance with the *International Building Code* applicable to new construction; and
2. The building has sufficient municipal water supply for design of an automatic sprinkler system, ~~available to the floor without installation of a new fire pump.~~

Reason: The judgment on whether to use a fire pump or not can be easily altered due to the cost and providing the space by the design professional or the building owner. A building owner and the design professional sometimes cannot see the need for a sprinkler system and by the current language have an easy way out of providing an essential life safety operation. Having a sprinkler system in an existing building will provide a higher level of safety for the occupants and fire fighters. The IEBC doesn't incorporate all the safety measures as a new building in the IBC, meaning, many of the active and passive measures are eliminated in the IEBC for architectural, structural, aesthetic, and economic reasons.

This section covers a broad range of occupancies and already provides economic relief to structures outside of a municipal water system, saving several thousands of dollars in extending a water main and/or adding water storage tanks. By giving the owner another choice to eliminate a fire sprinkler system and saving more money, could cost in lives and property down the road. The code official has to rely on the word of the owner on the necessity of a fire pump in the current language. The truth is by adding a fire sprinkler system it will usually pay for itself in a range of 7-10+ years by insurance premium discounts, tax depreciation, business downtime in the event of a fire, and potential litigation in the event of death and injuries.

The necessity of a fire pump only comes into the equation when the hydraulic calculations are performed. In many cases pipe sizes and design will determine whether or not a fire pump is needed. For example, if a building owner has sufficient water supply at the street, but decides that he/she wants all 1 inch pipe for all four stories a fire pump would be needed. In this case water pressure is crucial and a fire pump would add the additional pressure. Anyone will tell you the owner is being unreasonable and this is the crux for removing the proposed language out of this section.

The code official needs this language out to insure the safety of lives and property in their jurisdiction and basing a life safety system solely on an economic decision is unwise. The current language is a loophole for dishonesty and a code official does not need any more of this in their day to day lives.

Cost Impact: This code change proposal will not increase the cost of construction.

EB31-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

804.2.3-EB-HUGO.doc

EB32 – 13

804.2.4

Proponent: Dave Frable, U.S. General Services Administration Public Buildings Service
(dave.frable@gsa.gov)

Revise as follows:

804.2.4 Other required automatic sprinkler systems. In buildings and areas listed in Table 903.2.11.6 of the *International Building Code*, *work areas* that have exits or corridors shared by more than one tenant or that have exits or corridors serving an occupant load greater than 30 shall be provided with an automatic sprinkler system under the following conditions:

1. The *work area* is required to be provided with an automatic sprinkler system in accordance with the *International Building Code* applicable to new construction; and
2. The building has sufficient municipal water supply for design and installation of an automatic sprinkler system available ~~to the floor without installation of a new fire pump.~~ at the site.

Reason: The intent of this code change is to attempt to address a concern that the municipal water supply must be available at the floor where the work area is located without the installation of a new fire pump. This code change revises the subject text such that if a municipal water supply is available at the building site, and the work area exceeds 50% of the floor area, the installation of a new fire pump if needed to supplement the necessary flow and pressure for the sprinkler system should not be the deciding factor to address the need to increase the current degree of public safety in existing buildings.

Cost Impact: This code change proposal will increase the cost of construction.

EB32-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

804.2.4-EB-FRABLE.doc

EB33 – 13

804.4.1.3

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Healthcare (John.Williams@DOH.WA.GOV) and Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee (cbaldassarra@rjagroup.com)

Revise as follows:

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. 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.

804.4.1.3 Group I-2. A fire alarm system shall be installed in work areas of Group I-2 occupancies as required by the International Fire Code for ~~existing~~ new Group I-2 occupancies.

Reason: This proposed change is a joint proposal from the ICC Ad Hoc Committee on Healthcare (AHC) and the Code Technology Committee (CTC). The scope of the AHC deals with Group I-2 hospitals (now Group I-2 Condition 2 as a result of approved code change G257-12) and the scope of the CTC's investigation of the area of study entitled "Care Facilities" addresses Group I-1 and Group I-2 Condition 1 (nursing homes).

This section in the IEBC refers you to the IFC for fire alarm requirements in existing buildings undergoing a Level 2 Alteration. Section 1103.7.3 of the IFC refers back to the new construction requirements of Section 907.2.6.2. This proposal removes the circuitous references by stipulating that the fire alarm system needs to be installed as required for new construction.

This is a joint proposal submitted by the ICC Ad Hoc Committee for Healthcare and the ICC Code Technology Committee.

The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering, a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April 2011, the AHC has held 8 open meetings and over 150 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: <http://www.iccsafe.org/cs/AHC/Pages/default.aspx>.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. This proposal is submitted by the ICC Code Technology Committee. The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: <http://www.iccsafe.org/cs/CTC/Pages/default.aspx>. Since its inception in April/2005, the CTC has held twenty-five meetings - all open to the public. In 2012, three of the 25 face-to-face meetings were held. In addition to the CTC meetings, the CTC established Study Groups (SG) of interested parties for each of the areas of study. These SG's are responsible for reviewing the available information and making recommendations to the CTC. All totaled, the SG's held over 70 conference calls in 2012.

Cost Impact: This code change proposal will not increase the cost of construction.

EB33-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

804.4.1.3-EB-BALDASSARRA-WILLIAMS-ADHOC.doc

EB34 – 13

805.3.1.1

Proponent: Maureen Traxler, City of Seattle, representing Seattle Dept. of Planning & Development
(Maureen.traxler@seattle.gov)

Revise as follows:

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 m²), 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 ~~community residences for the developmentally disabled~~, the maximum occupant load excluding staff is 12.

(Portions to text not shown remain unchanged)

Reason: The term “community residence for the developmentally disabled” is a term not used by many jurisdictions. Group R-4 seems to be the term used in the International Codes that most closely resembles it. Community residences are defined in part by the State of New Jersey as providing “residential services for up to 16 developmentally disabled persons, including group homes, supervised apartments, and supportive living”; Group R-4 is defined in the IBC as “...buildings, structures or portions thereof for more than five but not more than 16 persons, excluding staff, who reside on a 24-hour basis in a supervised residential environment and receive *custodial care*...” Examples of R-4 occupancies include assisted living facilities, group homes, and residential board and custodial care facilities.

Cost Impact: The code change proposal will not increase the cost of construction.

EB34-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

805.3.1.1-EB-TRAXLER.doc

EB35 – 13

805.3.1.1

Proponent: Steve Thomas, Colorado Code Consulting, LLC (sthomas@coloradocode.net)

Revise as follows:

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 m²), 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 community residences for the developmentally disabled, the maximum occupant load excluding staff is 12.
5. Groups R-1 and R-2 not more than ~~two~~ three stories in height, when there are not more than four dwelling units per floor and the exit access travel distance does not exceed ~~50~~ 125 feet (15 240 mm 38,100 mm). The minimum fire-resistance rating of the exit enclosure and of the opening protection shall be 1 hour. Each dwelling unit shall be provided with emergency escape and rescue openings in accordance with Section 1029 of the International Building Code.

(Portions of text not shown remain unchanged)

Reason: This change is intended to create consistency between the IEBC and the IBC. The travel distances for Group R-2 occupancies in Table 1021.2(1) were changed in the 2012 IBC. This change is consistent with that change. It eliminates any potential conflicts between the codes. We have also added the requirement for emergency escape and rescue openings to the section to be consistent with the footnote a of IBC Table 1021.2(1) for consistency as well.

Cost Impact: The code change proposal will not increase the cost of construction. It will reduce the cost of construction.

EB35-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

805.3.1.1-EB-THOMAS

EB36 – 13

805.3.1.2

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Healthcare
(John.Williams@DOH.WA.GOV)

Revise as follows:

805.3.1.2 Fire escapes required. For other than Group I-2 Condition 2, where ~~When~~ 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.

Reason: Based on the approval as modified of code change G257-12, Group I-2 hospitals are now classified as Group I-2, Condition 2. Where a Level 2 Alteration occurs, this proposal is intended to limit the use of fire escapes to all occupancies other than hospitals. Hospitals are a unique environment which employ the defend in place strategy which is one for which the use of a fire escape is neither practical nor appropriate. The minimum number of exits from such facilities needs to be held to the highest possible standard – that of new construction as stipulated in Section 805.3.1.

This proposal is submitted by the ICC Ad Hoc Committee for Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering, a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April 2011, the AHC has held 8 open meetings and over 150 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: <http://www.iccsafe.org/cs/AHC/Pages/default.aspx>.

Cost Impact: The code change proposal will not increase the cost of construction.

EB36-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

805.3.1.2-EB-WILLIAMS-ADHOC

EB37 – 13

805.5.2

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Healthcare (John.Williams@DOH.WA.GOV) and Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee (cbaldassarra@rjagroup.com)

Revise as follows:

805.5.2 Transoms. In all buildings of Group I-1, Group I-2, R-1 and R-2 occupancy, all transoms in corridor walls in work areas shall either be glazed with 1/4-inch (6.4 mm) wired glass set in metal frames or other glazing assemblies having a fire protection rating as required for the door and permanently secured in the closed position or sealed with materials consistent with the corridor construction.

Reason: This proposed change is a joint proposal from the ICC Ad Hoc Committee on Healthcare (AHC) and the Code Technology Committee (CTC). The scope of the AHC deals with Group I-2 hospitals (now Group I-2 Condition 2 as a result of approved code change G257-12) and the scope of the CTC's investigation of the area of study entitled "Care Facilities" addresses Group I-1 and Group I-2 Condition 1 (nursing homes).

Hospitals and nursing homes are a unique environment which employ the defend in place strategy which is one for which the means of egress and relocation of individuals from one smoke compartment another is of critical importance. Where a Level 2 Alteration occurs, resulting in a reconfiguration of the work area, the corridors provide a critical passageway which needs to be held to the highest possible standard while at the same time acknowledging practical construction limitations. The current code acknowledges this for Groups I-1, R-1 and R-2 occupancies where the occupants may be sleeping. This code change provides the same level of protection for Group I-2.

This is a joint proposal submitted by the ICC Ad Hoc Committee for Healthcare and the ICC Code Technology Committee.

The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering, a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April 2011, the AHC has held 8 open meetings and over 150 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: <http://www.iccsafe.org/cs/AHC/Pages/default.aspx>.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. This proposal is submitted by the ICC Code Technology Committee. The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: <http://www.iccsafe.org/cs/CTC/Pages/default.aspx>. Since its inception in April/2005, the CTC has held twenty-five meetings - all open to the public. In 2012, three of the 25 face-to face meetings were held. In addition to the CTC meetings, the CTC established Study Groups (SG) of interested parties for each of the areas of study. These SG's are responsible for reviewing the available information and making recommendations to the CTC. All totaled, the SG's held over 70 conference calls in 2012.

Cost Impact: The code change proposal will not increase the cost of construction.

EB37-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

805.5.2-EB-BALDASSARRA-WILLIAMS-ADHOC

EB38 – 13

805.6

Proponent: Gerald Anderson, City of Overland Park, Kansas (jerry.anderson@opkansas.org)

Revise as follows:

805.6 Dead-end corridors. Dead-end corridors in any *work area* created as a result of the alteration shall not exceed ~~35~~ 20 feet (6096 mm). Existing dead-end corridors in any work area shall not exceed 35 feet (10 670 mm).

Exceptions:

1. Where dead-end corridors of greater length are permitted by the *International Building Code*.
2. In other than Group A and H occupancies, the maximum length of an existing dead-end corridor shall be 50 feet (15 240 mm) in buildings equipped throughout with an automatic fire alarm system installed in accordance with the *International Building Code*.
3. In other than Group A and H occupancies, the maximum length of an existing dead-end corridor shall be 70 feet (21 356 mm) in buildings equipped throughout with an automatic sprinkler system installed in accordance with the *International Building Code*.
4. In other than Group A and H occupancies, the maximum length of an existing, newly constructed, or extended dead-end corridor shall not exceed 50 feet (15 240 mm) on floors equipped with an automatic sprinkler system installed in accordance with the *International Building Code*.

Reason: The intent of the code change is to make the base requirement for the allowable length of a dead-end corridor to be the same as the International Building code. The IBC limits dead-end corridors to 20 feet. The new wording will continue to make allowances for existing situations where existing dead-end corridor are found to be 35 feet length or less in length. It seems terribly inconsistent to require dead-end corridors on new construction be limited to 20 feet, and then yet allow for an alteration with a 35 foot dead end corridor.

Cost Impact: The code change proposal will not increase the cost of construction.

EB38-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

805.6-EB-ANDERSON

EB39 – 13

805.10 (NEW), 805.10.1 (NEW), 805.10.2 (NEW)

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care and Carl Baldassarra, Code Technologies Committee

Add new text as follows:

805.10 Refuge areas. Where alterations affect the configuration of an area utilized as a refuge areas, the capacity of the refuge area shall not be reduced below that required in Section 805.10.1 and 805.10.2.

805.10.1 Smoke compartments. In Group I-2 occupancies, the required capacity of the refuge areas for smoke compartments in accordance with Section 407.5.1 and 408.6.2 of the *International Building Code* shall be maintained.

805.10.2 Horizontal exits. The required capacity of the refuge area for horizontal exits in accordance with Section 1025.4 of the *International Building Code* shall be maintained.

Reason: When a space in a Group I-2 facility is being altered the designer needs to check that an alteration does not conflict with the area being used as a refuge area from an adjacent compartment. There was a correlative change proposed and accepted for IBC Chapter 34/IEBC Chapter 4.

This proposal is submitted by the ICC Ad Hoc Committee for Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering, a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April 2011, the AHC has held 8 open meetings and over 150 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: <http://www.iccsafe.org/cs/AHC/Pages/default.aspx>.

This proposal is being co-sponsored by the ICC Code Technology Committee. The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: <http://www.iccsafe.org/cs/CTC/Pages/default.aspx>. Since its inception in April/2005, the CTC has held twenty five meetings - all open to the public.

Cost Impact: This code change proposal will not increase the cost of construction.

EB39-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

805.10 (NEW)-EB-BALDASSARRA-WILLIAMS-ADHOC.doc

EB40 – 13

805.10 (NEW), 805.10.1 (NEW), 805.10.2 (NEW)

Proponent: Robert J Davidson, Davidson Code Concepts, LLC, representing self
(rjd@davidsoncodeconcepts.com)

Add new text as follows:

805.10 Refuge areas. Where alterations affect the configuration of an area utilized as a refuge areas, the capacity of the refuge area shall not be reduced below that required in Section 805.10.1 and 805.10.2.

805.10.1 Smoke compartments. In Group I-3 occupancies, the required capacity of the refuge areas for smoke compartments in accordance with Section 407.5.1 and 408.6.2 of the International Building Code shall be maintained.

805.10.2 Horizontal exits. The required capacity of the refuge area for horizontal exits in accordance with Section 1025.4 of the International Building Code shall be maintained.

Reason: When a jail is being altered the designer needs to check that an alteration does not conflict with the area being used as a refuge area from an adjacent compartment. The intent is to mirror the language proposed by the Adhoc Health Care for hospitals for consistency in protection.

Cost Impact: This code change proposal will not increase the cost of construction.

EB40-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

805.10 (NEW)-EB-DAVIDSON.doc

EB41 – 13

805.10 (NEW), 805.10.1 (NEW), 808.10.2 (NEW)

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Healthcare

Revise as follows:

IEBC 805.10 Refuge areas. Where alterations affect the configuration of an area utilized as a refuge areas, the capacity of the refuge area shall not be reduced below that required in Section 805.10.1 and 805.10.2.

IEBC 805.10.1 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.

IEBC 805.10.2 Horizontal exits. The required capacity of the refuge area for horizontal exits in accordance with Section 1025.4 of the International Building Code shall be maintained.

Reason: The provisions to separate Ambulatory Care facilities with four or more persons may not be capable of self-preservation is fairly new in the code. However, when a different tenant in the building makes alterations, it needs to be verified that the areas of refuge are maintained. The intent is to mirror the language proposed by the Adhoc Health Care for hospitals.

This proposal is submitted by the ICC Ad Hoc Committee for Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering, a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April 2011, the AHC has held 8 open meetings and over 150 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: <http://www.iccsafe.org/cs/AHC/Pages/default.aspx>.

Cost Impact: This code change proposal will not increase the cost of construction.

Contact: Adhoc Health Committee, MOE Study Committee – Kim Paarlberg Secretariat

EB41-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

805.10 (NEW)-EB-WILLIAMS-ADHOC.doc

EB42 – 13

806.2

Proponent: Carl Baldassarra, P.E., Chair, ICC Code Technology Committee
(cbaldassarra@rjagroup.com)

Revise as follows:

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

Reason: The intent of this provisions is that the accessible route will be permitted to be provided in the same area as the new construction, and is not require it to be located elsewhere in the building. A reference to Section 1104.5 could require the accessible route to be provided in another part of the building is the new stairway was not on a general circulation route. A correlative change has been proposed and approved for IBC Section 3411.8.4/IEBC 410.8.4.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as “areas of study”. Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: <http://www.iccsafe.org/cs/CTC/Pages/default.aspx>. Since its inception in April/2005, the CTC has held twenty five meetings - all open to the public.

Cost Impact: The code change proposal will not increase the cost of construction.

EB42-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

806.2-EB-BALDASSARRA-CTC

EB43 – 13

806.3, 806.4, 806.5, 906.2

Proponent: Carl Baldassarra, P.E., Chair, ICC Code Technology Committee

Revise as follows:

806.3 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 and Chapter 9 of the *International Building Code* for visible alarms apply only to the quantity of spaces being added.

806.4 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.

806.5 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 the spaces being added.

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 ~~or 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 altered ~~or added~~.

Reason: The intent of this change is to clarify when Accessible, Type A and Type B units are required in alterations and additions.

Units being added within an existing structure are considered an alteration; therefore, Accessible and Type A units that are added as part of a renovation are adequately addressed in Section 705.1.8 and 705.1.9, and the language in 806.3 and 806.4 is not needed.

Additions adjacent to or above a building must comply with new construction. Therefore, Section 806.3, 806.4 and 806.5 should be relocated to Section 1105. This clarifies that just the addition is considered for the number of units, not the addition plus the number of existing units. Section 705.1.14, Extent of application, would allow for a situation where Accessible and Type A units were provided in sufficient numbers, including the addition, in the existing building.

Type B units are currently required in existing building undergoing a Level 3 alteration, with or without a change of occupancy. This requirement will remain the same (see Section 705.1, Exception 3, Section 906.2 and the exception to Section 1012.8).

For reference these are the related sections with revisions included.

Level I Alterations

705.1 General. A facility that is altered shall comply with the applicable provisions 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.

705.1.8 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 and Chapter 9 of the *International Building Code* for visible alarms apply only to the quantity of the spaces being altered.

705.1.9 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.

Level II Alterations

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

Level III Alterations

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

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 or 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 altered or added.

Change of Occupancy

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

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*.

Additions

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 Sections 705, 806 and 906, as applicable.

1105.2 806.3 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 and Chapter 9 of the *International Building Code* for visible alarms apply only to the quantity of the spaces being added.

1105.3 806.4 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.

1105.4 806.5 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 the spaces being added.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: <http://www.iccsafe.org/cs/CTC/Pages/default.aspx>. Since its inception in April/2005, the CTC has held twenty five meetings - all open to the public.

Cost Impact: This code change proposal will not increase the cost of construction.

EB43-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

906.2-EB-BALDASSARRA-CTC.doc

EB44 – 13

808.1

Proponent: Gerald Anderson, City of Overland Park, Kansas (jerry.anderson@opkansas.org)

Revise as follows:

808.1 New installations. All newly installed electrical equipment and wiring relating to work done in any *work area* shall comply with ~~the materials and methods requirements of Chapter 7.~~

Exception: ~~Electrical equipment and wiring in newly installed partitions and ceilings shall comply with all applicable requirements of NFPA 70~~ except as provided for in Section 808.3.

Reason: There are no requirements pertaining to electrical equipment and wiring in Chapter 7 thus it is inappropriate to refer back to chapter 7. Reference is made to Section 808.3 to make it clear that the requirements found in NFPA 70 would not override the special provisions related to residential occupancies.

Cost Impact: The code change proposal will not increase the cost of construction.

EB44-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

808.1-EB-ANDERSON

EB45 – 13

901.2, 903.2.1, 903.3

Proponent: David S. Collins, FAIA, The Preview Group, Inc., representing The American Institute of Architects

Revise as follows:

901.2 Compliance. In addition to the provisions of this chapter, work shall comply with all of the requirements of Chapters 7 and 8. The requirements of Sections 803, 804 and 805 shall apply ~~within all work areas~~ to all Level 3 alteration work per Section 505.1, 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 shall not be required to comply with this chapter.

903.2.1 Separation required. Where the ~~work area~~ Level 3 alteration work 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.

903.3 Interior finish. Interior finish in exits serving the ~~work area~~ Level 3 alterations shall comply with Section 803.4 between the highest floor on which there is ~~a work area~~ an alteration to the floor of exit discharge.

Reason: This change is part of the package of changes to help clarify how alteration work is described and within what limitations they are to be applied. Section 505.1 will include the limitations for the 50 percent reconfiguration of space, along with the reconfiguration or extension of systems that serve more than 50 percent of the space in a building.

Cost Impact: The code change proposal will not increase the cost of construction. This will lower the cost of construction by eliminating confusion.

EB45-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

901.2-EB-COLLINS.doc

EB46 – 13

902.2, 902.2.1

Proponent: Carl Baldassarra, P.E., Chair, ICC Code Technology Committee

Revise as follows:

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, R-2 and R-4 occupancies ~~the following facilities shall be enclosed by 1-hour fire-resistance-rated construction: day nurseries, children's shelter facilities, residential childcare facilities, and similar facilities with children below the age of 21/2 years or that are classified as Group I-2 occupancies, shelter facilities, residences for the developmentally disabled, group homes, teaching family homes, transitional living homes, rooming and boarding houses, hotels, and multiple dwellings.~~

Exceptions:

1. ~~Furnace and Steam boiler equipment of low-pressure type, operating at pressures of 15 pounds per square inch gauge (psig) (103.4 KPa) or less for steam equipment or is not required to be enclosed.~~
2. ~~Hot water boilers operating at pressures of 170 psig (1171 KPa) or less for hot water equipment, when installed in accordance with manufacturer recommendations are not required to be enclosed.~~
3. ~~2- Furnace and boiler equipment of residential R-3 type with 200,000 400,000 British thermal units (Btu) (2.11 4.22 x 108 J) per hour input rating or less is not required to be enclosed.~~
4. ~~3- Furnace rooms protected with automatic sprinkler protection fire-extinguishing system are not required to be enclosed.~~

902.2.1 Emergency controls. Emergency controls for boilers and furnace equipment shall be provided in accordance with the *International Mechanical Code* in all buildings classified as day nurseries, children's shelter facilities, residential childcare facilities, and similar facilities with children below the age of 21/2 years or that are classified as Group I-2 occupancies, and in group homes, teaching family homes, and supervised transitional living homes in accordance with the following:

1. ~~Emergency shutoff switches for furnaces and boilers in basements shall be located at the top of the stairs leading to the basement; and~~
2. ~~Emergency shutoff switches for furnaces and boilers in other enclosed rooms shall be located outside of such room.~~

Reason: The list of occupancies is outdated and unclear in both Section 902.2 and 902.2.1. The exceptions in 902.2 should be consistent with IBC Table 508.2.5 for new construction, not have a much lower threshold for renovations versus new. The remainder of the revisions is a clarification of the existing language. Emergency controls for boilers and furnace equipment is never required in the IMC, so Section 902.2.1 should be deleted.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: <http://www.iccsafe.org/cs/CTC/Pages/default.aspx>. Since its inception in April/2005, the CTC has held twenty five meetings - all open to the public.

Cost Impact: This code change proposal will not increase the cost of construction.

EB46-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

902.2-EB-BALDASSARRA-CTC.doc

EB47 – 13

904.1, 904.1.1

Proponent: Dave Fable, U.S. General Services Administration, Public Buildings Service
(dave.fable@gsa.gov)

Revise as follows:

904.1 Automatic sprinkler systems. ~~Automatic sprinkler systems~~ An automatic sprinkler system shall be provided in ~~all work areas~~ a work area when required by Section 804.2 or this section.

904.1.1 High-rise buildings. ~~In high-rise buildings, work areas shall be provided with automatic sprinkler protection where the building has a sufficient municipal water supply system to the site. Where the work area exceeds 50 percent of floor area, sprinklers shall be provided in the specified areas where sufficient municipal water supply for design and installation of a fire sprinkler system is available at the site. An automatic sprinkler system shall be provided in work areas when the high-rise building has a sufficient municipal water supply for the design and installation of an automatic sprinkler system at the site.~~

Reason: The intent of this code change is to attempt to simplify and provide some clarification to Section 904.1 and 904.1.1. Currently, the text as written is confusing for sprinkler protection in Level 3 alterations.

Cost Impact: This code change proposal will increase the cost of construction.

EB47-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

904.1-EB-FRABLE.doc

EB48 – 13

904.1.3 (NEW)

Proponent: Carl Baldassarra, P.E., Chair, ICC Code Technology Committee

Revise as follows:

904.1 Automatic sprinkler systems. Automatic sprinkler systems shall be provided in all *work areas* when required by Section 804.2 or this section.

904.1.1 High-rise buildings. In high-rise buildings, work areas shall be provided with automatic sprinkler protection where the building has a sufficient municipal water supply system to the site. Where the *work area* exceeds 50 percent of floor area, sprinklers shall be provided in the specified areas where sufficient municipal water supply for design and installation of a fire sprinkler system is available at the site.

904.1.2 Rubbish and linen chutes. Rubbish and linen chutes located in the *work area* shall be provided with automatic sprinkler system protection or an approved automatic fire-extinguishing system where protection of the rubbish and linen chute would be required under the provisions of the International Building Code for new construction.

904.1.3 Upholstered furniture or mattresses. *Work areas* shall be provided with automatic sprinkler protection in accordance with the *International Building Code* where any of the following conditions exist:

1. A Group F-1 occupancy used for the manufacture of upholstered furniture or mattresses exceeds 2,500 square feet (232 m²).
2. A Group M occupancy used for the display and sale of upholstered furniture or mattresses exceeds 5,000 square feet (464 m²).
3. A Group S-1 occupancy used for the storage of upholstered furniture or mattresses exceeds 2,500 square feet (232 m²).

Exception: Where an automatic sprinkler system is required by items 1, 2 or 3 and where the building does not have sufficient municipal water supply for the design and installation of an automatic 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. The automatic smoke detection system shall activate the occupant notification system in accordance with Sections 907.4, 907.5 and 907.6 of the *International Building Code*.

Reason: This proposed change is a result of the CTC's investigation of the area of study entitled "NIST Charleston Sofa Store Fire Recommendations". The scope of the activity is noted as:

"Review the NIST and other investigative reports on the fire that occurred on the evening of June 18, 2007 in the Sofa Super Store in Charleston, South Carolina to identify issues that can be addressed by the International Codes."

In connection with their investigation, NIST analyzed the fire ground, consulted with other experts, and performed computer simulations of fire growth alternatives. Based on these analyses, NIST concluded that the following sequence of events is likely to have occurred. A fire began in packing material and discarded furniture outside an enclosed loading dock area. The fire spread to the loading dock, then into both the retail showroom and warehouse spaces. During the early stages of the fire in the two latter locations, the fire spread was slowed by the limited supply of fresh air. This under-ventilation led to generation of a large mass of pyrolyzed and only partially oxidized effluent. The smoke and combustible gases flowed into the interstitial space below the roof and above the suspended ceiling of the main retail showroom. As this space filled with unburned fuel, the hot smoke also seeped through the suspended ceiling into the main showroom and formed a hot smoke layer below the suspended ceiling. Up to this time, the extent of fire spread into the interstitial space was not visible to fire fighters in the store. If the fire spread had been visible to the fire fighters in the store, it would have provided a direct indication of a fire hazard in the showroom. Meanwhile, the fire at the back of the main showroom and the gas mixture below the suspended ceiling were both still fuel rich. When the front windows were broken out or vented, the inflow of additional air allowed the heat release rate of the fire to intensify rapidly and added air to the layer of unburned fuel below the suspended ceiling enabling the ignition of the unburned fuel/air mixture. The fire swept from the rear to the front of the main showroom extremely quickly, and then into the west and east showrooms. Nine fire fighters were killed in the Sofa Super Store fire. NIST developed eleven recommendations to help mitigate such future losses.

Recommendation 4 of the NIST report reads as follows:

"NIST recommends that model codes require sprinkler systems and that state and local authorities adopt and aggressively enforce this provision:

- a) for all new commercial retail furniture stores regardless of size; and
- b) for existing retail furniture stores with any single display area of greater than 190 m² (2000 ft²).

An installed fire sprinkler system that complied with a national standard such as NFPA 13 [3] would have activated and would have controlled the fire growth. If the showrooms had been divided into smaller areas with fire barriers, the compartmentation would have slowed the spread of the fire as well."

Following a review of recommendation 4 of the NIST report, a new section, 904.1.3, is proposed to be added to the International Existing Building Code addressing Level 3 alterations. This new language would ensure that occupancies used for the merchandizing, storage or manufacture of upholstered furniture or mattresses have fire protection installed when the space occupied for these purposes undergo a Level 3 alteration.

Most of the targeted occupancies would already require the installation of automatic fire sprinkler systems if a Level 2 Alteration occurred, and Section 901.2 of the IEBC points to Chapters 7 and 8 as required to be complied with in such circumstance.

However, Chapter 8, specifically Section 804.2.2 as shown below, requires compliance when there are shared tenant egress paths or occupant loads of 30 or greater.

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.

Exceptions:

1. Work areas in Group R occupancies three stories or less in height.
2. 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*.

This proposal defers to the square footage thresholds found in Chapter 9 of the International Building Code once the work area reaches a Level 3 threshold. In reality, the impact is minimal as far as added occupancies that would be covered by this provision. What it does is eliminate a more complicated determination for identifying the requirement for providing the protection levels. The S-1 occupancies and the storage areas of the F-1 would be covered by Chapter 32 (High-Piled Combustible Storage) of the IFC, where the threshold to provide automatic sprinkler protection is currently 2500 ft².

OCCUPANT LOAD COMPARISON WITH SUGGESTED THRESHOLDS

(Section 804.2.2 applies to multitenant shared egress paths or with occupant load of 30 or greater)

Using IBC Table 1004.1.2

F-1	Factor 100 ft ² gross per person	2500 ft ² =25 person
M	Factor 30 ft ² /60 ft ² (display areas)	5000 ft ² = 167/83 persons
S-1	Factor 500 ft ² gross per person	2500 ft ² = 5* persons

*IFC **TABLE 3206.2 GENERAL FIRE PROTECTION AND LIFE SAFETY REQUIREMENTS** already requires automatic sprinkler protection for high-piled storage areas over 2500 ft².

Based upon the above analysis, there will be a cost increase for only a minimal subset of the affected occupancies.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. This proposal is submitted by the ICC Code Technology Committee. The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: <http://www.iccsafe.org/cs/CTC/Pages/default.aspx>. Since its inception in April/2005, the CTC has held twenty-five meetings - all open to the public. In 2012, three of the 25 face-to face meetings were held. In addition to the CTC meetings, the CTC established Study Groups (SG) of interested parties for each of the areas of study. These SG's are responsible for reviewing the available information and making recommendations to the CTC. All totaled, the SG's held over 70 conference calls in 2012.

Cost Impact: This code change proposal will increase the cost of construction.

EB48-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

904.1.3 (NEW)-EB-BALDASSARRA-CTC.doc

EB49 – 13

904.2

Proponent: Charles S. Bajnai, Chesterfield County, VA, ICC Building Code Action Committee

Revise as follows:

904.2 Fire alarm and detection systems. Fire alarm and detection systems ~~complying with Sections 804.4.1 and 804.4.3~~ shall be provided ~~throughout the building~~ in accordance with Section 907 of the International Building Code as required for new construction.

Reason: This proposal is submitted by the ICC Building Code Action Committee (BCAC). The BCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance an assigned International Code or portion thereof. This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. Since its inception in July, 2011, the BCAC has held 6 open meetings and numerous workgroup calls which included members of the BCAC as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: <http://www.iccsafe.org/cs/BCAC/Pages/default.aspx>.

The reference back to Section 804.4.1 through 804.4.3 misses critical upgrades of alarm systems for other occupancies. The intent of this proposal is to eliminate the reference to Chapter 8 of the IEBC because the reference creates confusion. Section 904.2.1 implies that an alarm system for all occupancies in accordance with the IBC would be required, however the reference to Section 804.4 implies that only those occupancies found in Section 804.4 are required to have them installed. Section 804.4 does not cover the fire alarm requirements for all occupancies in the IBC. An alteration level 3 to an existing A occupancy is a significant change to more than 50% of the area of a building and an alarm system would not be required with the current reference to Section 804.4 left in the code.

Cost Impact: This code change proposal will increase the cost of construction.

EB49-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

904.2-EB-BAJNAI-BCAC.doc

EB50 – 13

906.2

Proponent: Ron Nickson, National Multi Housing Council (NMHC) (rnickson@nhmc.org), Steve Orlowski, National Association of Home Builders (NAHB) (sorlowski@nahb.org)

Revise as follows:

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 or 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 altered or added.

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.

Reason: The purpose of this code change is to revise the provisions of the existing building code to be in line with the provisions of FHA, which state “*The design requirements apply to buildings built for first occupancy after March 13, 1991, which fall under the definition of “covered multifamily dwellings.”*” Too often existing building owners who submit plans to alter an existing residential building which was built before the FHA guidelines went into effect are told that they must comply with the accessible requirements for new buildings. This exception brings the IEBC in line with federal guidelines.

Cost Impact: This code change proposal will not increase the cost of construction.

EB50-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

906.2-EB-NICKSON-ORLOWSKI.doc

EB51 – 13

908.2 (NEW)

Proponent: Jim Edelson, New Buildings Institute (jedelson@comcast.net), Ric Cochrane, National Trust for Historic Preservation, David Collins, The Preview Group, representing The American Institute of Architects

Add new text as follows:

908.2 Requirements for underperforming nonresidential existing buildings. Nonresidential *existing buildings* undergoing *Level 3 alterations* that cannot demonstrate an Energy Star score of 26 or greater, or a source EUI equal to or greater than the source EUI in Table 908.2 and calculated in accordance with Section 908.2.1, shall meet the requirements of no less than two of the following:

1. Comply with “Walls, Above Grade” requirements of Table C402.1.2 of the *International Energy Conservation Code*
2. Comply with “Roofs” requirements of Table C402.1.2 of the *International Energy Conservation Code*
3. Comply with Table C402.3 of the *International Energy Conservation Code*
4. Where the *building* meets the conditions of Section C402.3.2, comply with Section C402.3.2 of the *International Energy Conservation Code* without exceptions
5. Comply with Section C402.4.1.2.3 of the *International Energy Conservation Code*
6. Comply with Section C403.2.7 of the *International Energy Conservation Code*
7. Where the *building* meets the conditions of Section C403.4.6, comply with Section C403.4.6 of the *International Energy Conservation Code* without exceptions
8. Comply with Sections C405.2 and C405.3 of the *International Energy Conservation Code*
9. Comply with Section C406 of the *International Energy Conservation Code*

TABLE 908.2
SOURCE ENERGY USE INTENSITY (sEUI) TARGETS

Climate Zone ^a	1A	2A	2B	3A	3B	3B	3C	4A	4B	4C	5A	5B	6A	6B	7	8
Use Types	sEUI Target (kBtu/sf/yr)															
Administrative/professional office	202	208	201	197	163	182	179	218	188	199	234	202	259	230	272	368
Bank/other financial	347	358	346	339	280	314	307	375	323	342	403	348	445	395	468	633
Government office	246	254	246	241	199	223	218	266	230	243	286	247	316	281	332	449
Medical office (non-diagnostic)	157	162	157	153	127	142	139	170	146	155	182	157	201	179	212	286
Mixed-use office	248	256	248	243	200	225	220	269	232	245	289	249	319	283	335	453
Other office	209	216	209	205	169	189	185	226	195	207	243	210	269	238	283	382
Laboratory	870	861	834	856	719	806	778	946	847	874	1021	914	1132	1031	1216	1614
Distribution/shipping center	151	97	100	95	74	92	79	107	100	94	125	117	149	137	171	268
Non-refrigerated warehouse	128	82	85	80	63	78	67	91	85	80	106	99	127	116	145	227
Convenience store	911	967	917	983	882	914	961	1061	972	1043	1124	1037	1201	1139	1286	1539
Convenience store with gas station	798	848	804	862	773	801	842	930	852	914	985	909	1053	998	1127	1349
Grocery store/food market	585	621	589	631	566	587	617	681	624	670	722	666	771	731	826	988
Other food sales	264	280	266	285	256	265	278	307	282	302	326	300	348	330	373	446
Fire station/police station	176	174	168	173	145	163	157	191	171	176	206	184	228	208	245	326
Other public order and safety	454	450	436	447	375	421	406	494	442	456	533	477	591	539	635	843
Medical office (diagnostic)	196	196	195	192	179	194	169	195	192	174	190	190	197	193	196	227

Clinic/other outpatient health	270	269	268	264	245	267	232	268	264	239	262	261	271	266	269	312
Refrigerated warehouse	601	595	577	591	497	557	538	654	585	604	706	632	782	713	840	1115
Religious worship	99	98	95	97	82	91	88	107	96	99	116	104	128	117	138	183
Entertainment/culture	229	227	220	225	189	212	205	249	223	230	269	241	298	272	320	425
Library	335	332	321	329	277	310	300	364	326	336	393	352	436	397	468	621
Recreation	157	156	151	155	130	146	141	171	153	158	185	165	205	186	220	292
Social/meeting	121	120	116	119	100	112	108	132	118	121	142	127	157	143	169	224
Other public assembly	149	147	143	146	123	138	133	162	145	149	175	156	194	176	208	276
College/university	325	332	320	332	241	309	287	395	333	353	438	371	517	445	564	816
Elementary/middle school	177	176	170	170	141	162	157	189	168	167	202	179	231	204	244	348
High school	166	170	163	170	123	158	147	202	170	180	224	189	264	228	288	417
Preschool/daycare	209	207	201	200	167	191	186	223	198	197	239	211	272	240	288	411
Other classroom education	126	129	124	128	93	120	111	153	129	137	170	143	200	172	218	316
Fast food	1817	1864	1827	1905	1685	1837	1781	2069	1925	1955	2232	2051	2423	2251	2599	3223
Restaurant/cafeteria	763	799	772	830	706	788	783	921	843	882	994	907	1077	1004	1164	1440
Other food service	716	749	724	778	662	739	734	864	791	827	933	851	1010	941	1092	1351
Hospital/inpatient health	561	568	534	548	530	523	547	572	492	536	572	503	590	530	600	716
Nursing home/assisted living	309	306	296	304	255	286	276	336	301	310	363	325	402	366	432	573
Dormitory/fraternity/sorority	175	176	171	173	142	164	148	192	170	173	215	188	247	219	269	345
Hotel	214	234	217	251	227	229	244	276	259	270	300	283	325	313	353	425
Motel or inn	231	231	225	230	201	220	209	245	228	226	260	240	283	260	300	366
Other lodging	229	229	224	228	200	218	207	243	226	224	259	239	281	259	298	364
Vehicle dealership/showroom	281	282	270	277	199	250	223	323	274	294	367	310	420	375	468	655
Retail store	194	195	187	191	138	173	154	223	189	203	253	214	290	259	323	453
Other retail	392	393	378	386	278	350	312	452	383	410	512	433	587	524	653	915
Post office/postal center	164	162	157	161	135	152	147	178	160	165	192	172	213	194	229	304
Repair shop	124	123	119	122	103	115	111	135	121	125	146	131	162	147	174	231
Vehicle service/repair shop	148	147	142	146	123	137	133	161	144	149	174	156	193	176	207	275
Vehicle storage/maintenance	112	111	107	110	93	104	100	122	109	112	131	118	146	133	157	208
Other service	315	312	302	310	260	292	282	343	307	317	370	331	410	374	441	585
Strip shopping mall	282	294	287	314	224	289	267	375	321	349	427	364	498	449	559	788
Enclosed mall	279	292	285	312	222	287	265	372	318	346	423	361	494	445	555	781

a. Climate zones as determined in accordance with Section C301 of the International Energy Conservation Code.

908.2.1 Calculation of Source EUI (sEUI). The sEUI shall be based on any 12 continuous months of energy use data for the whole *building* from the 24 month period immediately prior to the permit application. The annual sEUI for electric energy shall be calculated by converting energy use at the *building* to kBtu's and multiplying by the conversion factor in Table 908.2.1(1) based on the geographical location of the *building*. The annual sEUI for fossil fuels shall be calculated by converting energy use at the *building* to kBtu's and multiplying by the conversion factors in Table 908.2.1(2). The annual sEUI for

district cooling shall be calculated by converting energy use at the *building* to kBtu's, multiplying by 0.33, and then multiplying by the conversion factor in Table 908.2.1(1) based on the geographical location of the *building*. The annual sEUI for district heating shall be calculated by converting energy use at the *building* to kBtu's and multiplying by 1.35 for hot water and 1.45 for steam. The annual sEUI for all other energy shall be calculated by converting energy use at the *building* to kBtu's and multiplying by 1.1. Where a *building* has multiple use types from Table 908.2, the maximum allowable energy use shall be based on the total gross floor area of each use type in relation to the total gross floor area of all use types within the *building*.

TABLE 908.2.1(1)
ELECTRICITY GENERATION ENERGY CONVERSION FACTORS BY eGRID SUB REGION^a

eGRID 2007 Sub-region Acronym	eGRID 2007 Sub-region Name	Energy Conversion Factor
AKGD	ASCC Alaska Grid	2.97
AKMS	ASCC Miscellaneous	1.76
ERCT	ERCOT All	2.93
FRCC	FRCC All	2.97
HIMS	HICC Miscellaneous	3.82
HIOA	HICC Oahu	3.14
MORE	MRO East	3.40
MROW	MRO West	3.41
NYLI	NPCC Long Island	3.20
NEWE	NPCC New England	3.01
NYCW	NPCC NYC/Westchester	3.32
NYUP	NPCC Upstate NY	2.51
RFCE	RFC East	3.15
RFCM	RFC Michigan	3.05
RFCW	RFC West	3.14
SRMW	SERC Midwest	3.24
SRMV	SERC Mississippi Valley	3.00
SRSO	SERC South	3.08
SRTV	SERC Tennessee Valley	3.11
SRVC	SERC Virginia/Carolina	3.13
SPNO	SPP North	3.53
SPSO	SPP South	3.05
CAMX	WECC California	2.61
NWPP	WECC Northwest	2.26
RMPA	WECC Rockies	3.18
AZNM	WECC Southwest	2.95

TABLE 908.2.1(2)
**U.S. AVERAGE BUILDING FUELS ENERGY
CONVERSION FACTORS BY FUEL TYPE**

Fuel Type	Energy Conversion Factor
Natural Gas	1.09
Fuel Oil	1.13
LPG	1.12

Reason: According to the Urban Land Institute, New Construction and Major Renovations account for only 1-2% of the building stock in a typical year. For the larger population of existing buildings, energy codes' primary means of improving energy efficiency are through alterations. However, as current energy codes are formulated, the scope of that impact is generally limited to the scope of the alteration. Energy code requirements generally apply only to the alterations and not to the whole building. This misses a tremendous opportunity for the energy code to improve the energy efficiency of the whole building stock.

Bearing in mind the dangers of unintended consequences, the proposal narrowly targets its new code requirements for existing buildings, and the proposal is built on four principles:

- Requirements should focus on the largest class of alterations to reduce the possibility of discouraging alterations.
- Many existing buildings perform quite well, so requirements should focus on poorly performing buildings rather than indiscriminately targeting all buildings.

- Existing buildings encompass wildly variable features and conditions, so requirements should have a built-in flexibility to respond to this reality.
- As this represents new ground in codes, requirements should leverage existing code mechanisms, code language and code requirements as much as possible.

The International Existing Building Code provides an appropriate location and a suitable code structure for adding code provisions to affect improved energy use in existing buildings. The IEBC creates three classes of Alterations (I, II and III). This proposal creates a trigger only for the most extensive Level III alterations. The trigger itself is based on the actual energy performance of the building undergoing the extensive alteration, and is set so that only the worst performing buildings are affected. In this way, the requirements affect only buildings that are both undergoing extensive alterations and are poor energy performers. This approach maximizes the effectiveness of the requirements relative to the effort required from both building owners and code officials.

The Level III projects that fall below the performance threshold would then choose two measures from an extensive list of options. This list leverages code requirements already found in the International Energy Conservation Code (IECC) and so will be familiar to contractors and code officials. The list represents a full range of options affecting every part of the building so that projects can choose actions that are appropriate and cost effective for that particular building's particular circumstances. Flexibility of this type is fundamental in writing code provisions that seek to have a greater impact on a jurisdiction's existing building stock.

The performance threshold is based on the 2003 Commercial Building Energy Consumption Survey (the same dataset that serves as the basis for commercial building Energy Star Scores and the targets for existing buildings in ASHRAE Standard 100). Based on either the table of values or an Energy Star Score threshold of 26, the requirements will only kick in for a building that would have fallen in the worst performing quartile of the building stock in that building survey. This is the worst 25% of the buildings around a decade ago, effectively making these requirements only apply to buildings that can be reasonably considered "energy hogs." CBECS is a nationwide survey conducted by the Energy Information Administration, so climate zone diversity for the table was created using the same, nationally vetted process used to create the performance targets for existing buildings proposed for ASHRAE Standard 100.

The target EUIs in the proposal are presented in source kBtu units because the only EUI metric in an I-Code, the 2012 IgCC, uses the same source kBtu metric. The calculation language and conversion factors for source energy are taken directly from the IgCC to maintain their meaning, but the code language has been slightly edited for greater clarity. Likewise, the same electricity energy conversion factors are used in the IgCC and these were derived from EPA eGrid data (2007 version 1.1, 2005 data; EPA eGrid regional gross grid loss factors; EIA Table 8.4a (Sum tables 8.4 band 8.4c) and Table 8.2c (Breakout of Table 8.2b), 2005 data).

The performance thresholds in the table are based on the 2003 Commercial Building Energy Consumption Survey (the same dataset that serves as the basis for commercial building Energy Star Scores and the targets for existing buildings in ASHRAE Standard 100). Based on either the table of values or an Energy Star Score threshold of 26, the requirements will only kick in for a buildings that fall in the worst performing quartile of the building stock in that building survey, effectively making these requirements only apply to buildings that can be reasonably considered "energy hogs." CBECS is a national survey, so the climate zone diversity for the table was created using the same, nationally vetted process used to create the performance targets for existing buildings pending in ASHRAE Standard 100. The target EUIs are expressed in source kBtu units because the only EUI metric in an I-Code, the IgCC, uses source kBtu. The calculation language and conversion factors for source energy is also taken directly from the IgCC with minor edits for clarity.

The compliance options all refer to provisions from the 2012 IECC and apply to a broad variety of energy aspects within a building. This allows projects to select the most appropriate compliance option for the specifics of that project's alteration.

- Option 1 would require compliance with the "Above Wall" insulation requirements of the IECC.
- Option 2 would require compliance with the "Roof" insulation requirements of the IECC.
- Option 3 would require compliance with the fenestration performance requirements of the IECC.
- Option 4 would require compliance with the daylighting control requirements of the IECC for top lit spaces that meet the conditions of the provision.
- Option 5 would require compliance with the infiltration requirements of the IECC through the air leakage testing requirement.
- Option 6 would require compliance with the duct insulation and sealing requirements of the IECC.
- Option 7 would require compliance with the service hot water heat recovery requirements of the IECC for buildings that meet the conditions of the provision
- Option 8 would require compliance with all of the lighting control requirements of the IECC.
- Option 9 would require compliance with one of the "Additional Efficiency Package Options" (Efficient HVAC performance, Efficient Lighting System, Onsite Renewable Energy Supply) of the IECC

Current energy codes have a limited means of impacting the energy performance of the vast majority of buildings in the existing building stock. This proposed addition will create a new application point for IECC provisions in the IEBC when a building undergoes an extensive alteration. And it will limit the new requirements only to those buildings which are both wasting the most energy and presenting the largest opportunity to achieve savings, while not at all impacting buildings that are undergoing minor renovations or that already have some modest level of energy performance.

Cost Impact: This code change proposal will not increase the cost of construction.

Analysis: PM12-13 also proposes a similar requirements for the IPMC.

EB51-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

EB52 – 13

202, 1001.1, 1001.2, 1001.2.1, 1001.3, 1001.3.1

Proponent: Gerald Anderson, City of Overland Park, Kansas representing self
(jerry.anderson@opkansas.org)

Revise as follows:

SECTION 202 GENERAL DEFINITIONS

CHANGE OF OCCUPANCY. A change in the ~~purpose or level of activity within a building that involves a change in application of the requirements of this code~~ use of the building or a portion a building. A change of occupancy shall include any change of occupancy classification, any change from one group to another group within an occupancy classification or any change in an allowable use within a given group for a specific occupancy classification.

Revise as follows:

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

- ~~1. Where the occupancy classification is not changed; or~~
- ~~2. Where there is a change in occupancy classification of the occupancy group designations changes~~

1001.2 Change in occupancy with no change of occupancy classification. A change in occupancy, as defined in Section 202, ~~with no change of occupancy classification~~ use shall not be made to any structure that will subject the structure to any special provisions of the applicable ~~International Codes~~, including the provisions of Sections 1002 through 1011, 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 in occupancy have been met.

1001.2.1 ~~Repair and alteration~~ Change in Occupancy with no change of occupancy classification. Any ~~repair or alteration~~ work undertaken in connection with a change of occupancy ~~in use~~ that does not involve a *change of occupancy* classification or a change to another group within a given occupancy classification shall conform to the applicable requirements for the work as classified in Chapter 4 and to the requirements of Section 1002 through 1011.

Exception: As modified in Section 1205 for *historic buildings*.

~~1001.3~~ 1001.2.2 Change of occupancy classification. Where the occupancy classification of a building changes, the provisions of Sections 1002 through 1012 shall apply. 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.

~~1001.3.1~~ 1001.2.2.1 Partial change of occupancy classification. Where a portion of an *existing building* is changed to a new occupancy classification, Section 1012 shall apply.

Reason: The purpose of the code change is to bring the IEBC definition for a change in occupancy more in line with the IBC definition for a change in occupancy. The additional portions of the code change clarify the intent of the code.

Definition: The definition for a change in occupancy should include all things that would constitute a change in occupancy. The IBC uses the words "use, groups and occupancy classification. For consistency and clarity it is important to stick with language used in the building code thus I changed out the word purpose with use. Example: Occupancy classifications are A,B,H,R,I,M,S & U. The different occupancy classifications can be divided into Groups, i.e. A-1, A-2, A-3 etc. and within the various groups there are examples of allowed uses for a particular group. Such as under group A-3, we find are art galleries, dance halls, & bowling alleys.

Some other reasons for changing the definition: The words "level of activity" is vague. It would also appear that a change in occupancy is somehow dependent on whether there are other code requirements for the new occupancy. A change in occupancy

should be a yes or no question. If the answer is yes then one proceeds to determine what new code provisions are applicable if any.

Section 1001.1 Scope. The stricken language is no longer necessary because the bullets points have been included in the definition. With the proposed language, I am trying to make a simple statement that the use of a building cannot be changed without the approval of the code official.

Section 1001.2 > The current language is vague. It appears that the existing language is trying to address a change in use. I have inserted the word use in order to make it clear as to what the code is trying to address. It is not necessary to speak to the special provisions of the applicable International codes whatever they are. A change in use is not dependent on special provisions of the code.

Section 1001.2.1, The current language is confusing and is in conflict with 1001.3. With the new wording, I am clarify that when there is a change of use that does not involve a change in occupancy classification or a change from one group to another in a given occupancy classification the code then refers one back to chapter 4 and sections 1002 through 1011. . It is not necessary to talk about "repair and alteration" for that is not the subject. The subject matter is change in occupancy which has resulted from a change in use.

I have renumbered the existing sections 1001.3 and 1001.3.1 making them subsections of 1001.2. All of the sections are addressing different types of occupancy change so it seems more appropriate to have one section with various subsections.

Cost Impact: This code change proposal will not increase the cost of construction.

EB52-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1001.1-EB-ANDERSON.doc

EB53 – 13

1001.1, 1001.2, 1004.1, 1012.1, 1012.1.1.1, 1012.1.1.2, 1012.2.1, 1012.2.2

Proponent: Robert J Davidson, Davidson Code Concepts, LLC, representing self
(rjd@davidsoncodeconcepts.com)

Revise as follows:

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

1. Where the occupancy classification is not changed; ~~or~~
2. Where there is a change in occupancy classification or the occupancy group designation changes; or
3. Where there is a change in use or occupancy with a fire protection threshold requirement in Chapter 9 of the *International Building Code*.

1001.2 Change in occupancy with no change of occupancy classification. A change in occupancy, as defined in Section 202, with no *change of occupancy classification* or where there is a change in use or occupancy with a fire protection threshold requirement in Chapter 9 of the *International Building Code* shall not be made to any structure that will subject the structure to any special provisions of the applicable *International Codes*, including the provisions of Sections 1002 through 1011, 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 in occupancy have been met.

1004.1 General. Fire protection requirements of Section 1012 shall apply where a building or portions thereof undergo a *change of occupancy classification* or where there is a change in use or occupancy with a fire protection threshold requirement in Chapter 9 of the *International Building Code*.

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 in use or occupancy with a fire protection 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. 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.

1012.1.1.1 Change of occupancy classification without separation. Where a portion of an *existing building* is changed to a new occupancy classification or where there is a change in use or occupancy with a fire protection threshold requirement in Chapter 9 of the *International Building Code* and that portion is not separated from the remainder of the building with fire barriers having a fire-resistance rating as required in the *International Building Code* for the separate occupancy, the entire building shall comply with all of the requirements of Chapter 9 applied throughout the building for the most restrictive occupancy classification in the building and with the requirements of this chapter.

1012.1.1.2 Change of occupancy classification with separation. Where a portion of an *existing building* that is changed to a new occupancy classification or where there is a change in use or occupancy with a fire protection threshold requirement in Chapter 9 of the *International Building Code* and that portion is separated from the remainder of the building with fire barriers having a fire-resistance rating as required in the *International Building Code* for the separate occupancy, that portion shall comply with

all of the requirements of Chapter 9 for the new occupancy classification and with the requirements of this chapter.

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 in use or occupancy with a fire protection 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.

1012.2.2 Fire alarm and detection system. Where a change in occupancy classification occurs or where there is a change in use or occupancy with a fire protection threshold requirement in Chapter 9 of the *International Building Code* that requires a fire alarm and detection system to be provided based on the new occupancy in accordance with Chapter 9 of the *International Building Code*, such system shall be provided throughout the area where the *change of occupancy* occurs. Existing alarm notification appliances shall be automatically activated throughout the building. Where the building is not equipped with a fire alarm system, alarm notification appliances shall be provided throughout the area where the *change of occupancy* occurs and shall be automatically activated.

Reason: This proposed change is a result of the NIST analysis and report on the Charleston Sofa Store Fire.

Recommendation 4 of the NIST report reads as follows:

"NIST recommends that model codes require sprinkler systems and that state and local authorities adopt and aggressively enforce this provision:

- a) for all new commercial retail furniture stores regardless of size; and
- b) for existing retail furniture stores with any single display area of greater than 190 m² (2000 ft²).

An installed fire sprinkler system that complied with a national standard such as NFPA 13 [3] would have activated and would have controlled the fire growth. If the showrooms had been divided into smaller areas with fire barriers, the compartmentation would have slowed the spread of the fire as well."

Upon investigation of recommendation 4 of the NIST report, a review of where in the family of I codes to put requirements for upgrading to automatic sprinkler protection for occupancies manufacturing, storing or merchandizing upholstered furniture and mattresses occurred. During this review it was noted that the International Existing Building Code applies the concept of "change of occupancy" broadly and not only to capture a change in the Group, but a change in the occupancy classification with a change in the Group, (see the classification breakdowns under each Group in Chapter 3 of the International Building Code).

The definition for Change of Occupancy drills down to a change "in the purpose of level of activity" for applying more current requirements of the IEBC and the IBC.

CHANGE OF OCCUPANCY. A change in the purpose or level of activity within a building that involves a change in application of the requirements of this code.

SECTION 1001 GENERAL

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

1. Where the occupancy classification is not changed; or
2. Where there is a change in occupancy classification or the occupancy group designation changes.

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.

What I noted was that when applying principals of fire protection, Chapter 9 of the International Building Code has use and levels of activity breakdowns separate and, in some cases, distinct from the occupancy classifications found in Chapter 3 of the International Building Code. In many cases these breakdowns are more significant than those found in Chapter 3 of the International Building Code.

What this proposal does is to suggest the insertion of language into Chapter 10 of the International Existing Building Code that would provide for capturing the fire protection thresholds found in Chapter 9 of the International Building Code as additional, and in many cases more accurate, triggers for the installation of fire protection systems and devices when a change of use or occupancy occurs within an existing building.

Cost Impact: This code change proposal will increase the cost of construction.

EB53-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1001.1-EB-DAVIDSON.doc

EB54 – 13

1002.1

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Healthcare (John.Williams@DOH.WA.GOV) and Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee (cbaldassarra@rjagroup.com)

Revise as follows:

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. – 10. *(No change text)*
11. Group I-2 occupancies

Reason: This proposed change is a joint proposal from the ICC Ad Hoc Committee on Healthcare (AHC) and the Code Technology Committee (CTC). The scope of the AHC deals with Group I-2 hospitals (now Group I-2 Condition 2 as a result of approved code change G257-12) and the scope of the CTC's investigation of the area of study entitled "Care Facilities" addresses Group I-1 and Group I-2 Condition 1 (nursing homes).

Ambulatory care facilities, Item 10, was added via code change EB27-09/10 following the inclusion of ambulatory care provisions in Chapter 4 of the 2009 IBC due to the unique nature of such facilities which require added protection features such as separation into smoke compartments. Similarly, Chapter 4 of the IBC requires enhanced fire protection features for Group I-2 which includes hospitals and nursing homes. Where a change in occupancy occurs, resulting in a Group I-2 classification, the new construction features must be employed to provide the requisite fire protection features.

This is a joint proposal submitted by the ICC Ad Hoc Committee for Healthcare and the ICC Code Technology Committee.

The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering, a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April 2011, the AHC has held 8 open meetings and over 150 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: <http://www.iccsafe.org/cs/AHC/Pages/default.aspx>.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. This proposal is submitted by the ICC Code Technology Committee. The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: <http://www.iccsafe.org/cs/CTC/Pages/default.aspx>. Since its inception in April/2005, the CTC has held twenty-five meetings - all open to the public. In 2012, three of the 25 face-to face meetings were held. In addition to the CTC meetings, the CTC established Study Groups (SG) of interested parties for each of the areas of study. These SG's are responsible for reviewing the available information and making recommendations to the CTC. All totaled, the SG's held over 70 conference calls in 2012.

Cost Impact: This code change proposal will not increase the cost of construction.

EB54-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1002.1-EB-BALDASSARRA-WILLIAMS-ADHOC.doc

EB55 – 13

1009.1

Proponent: Maureen Traxler, City of Seattle, representing Seattle Dept. of Planning & Development
(Maureen.traxler@seattle.gov)

Revise as follows:

1009.1 Mechanical requirements. 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 intent of the respective *International Mechanical Code* provisions.

Reason: The requirement to comply with the intent of a code is unenforceable.

Cost Impact: This code change will not increase the cost of construction.

EB55-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1009.1-EB-TRAXLER.doc

EB56 – 13

1011 (NEW)

Proponent: Jeremiah Williams, U.S. Department of Energy (jeremiah.williams@ee.doe.gov)

Add new text as follows:

SECTION 1011 **ENERGY EFFICIENCY**

1011.1 Increased demand. *Where the occupancy of an existing building or part of an existing building is changed such that the new occupancy results in an increase in the installed capacity of the building electrical or energy system from non-renewable sources the new occupancy shall comply with the International Energy Conservation Code.*

Reason: This proposal requires the building to meet the provisions of the 2012 International Energy Conservation Code (IECC) when there any change in occupancy resulting in increased demand for energy or power.

Forty percent of U.S. energy use and seventy percent of U.S. electrical use are associated with existing buildings. As such, existing buildings represent a significant opportunity to save energy, reduce operating costs, and enhance the environment. A portion of the total number of existing buildings undergoes a change in occupancy each year. Health and life safety codes currently address those changes in occupancy such that the resultant building after the occupancy change provides the necessary capabilities to protect the public health and safety. A review of Chapter 10 of the International Existing Buildings Code (IEBC) on changes in occupancy does not include a consideration of energy efficiency. The IEBC must appropriately address the opportunity to increase energy efficiency in existing buildings. One way to address this is when a change in use would result in an increase in energy use of the building between the pre- and post-occupancy change situation. This is consistent with, for instance, Section 1010 on plumbing, in which a change in occupancy that results in an increased demand for water triggers a requirement to meet the International Plumbing Code.

Consider the change in use from a storage warehouse to retail space, a portion of an office building to food service, or any other number of situations in which the energy use of the building or spaces associated with the change in occupancy will be increased. There currently is no way in the IEBC to address those situations, presenting a lost opportunity and even a way to circumvent the 2012 IECC, which does address this issue. Section C101.4.4 of the IECC clearly requires that spaces undergoing a change in occupancy that results in an increased demand for energy must comply with the IECC. This change ensures consistency between the IEBC and the IECC on this issue.

The proposed change addresses this by offering two options through which compliance can be achieved. One is to bring the building after the occupancy change up to the 2012 IECC, and the other is to accomplish the change with no increase in connected load thereby negating the need to address IECC compliance. This change will not undermine renovations to existing buildings. If a change of occupancy is considered a renovation then there are already a number of provisions in Chapter 10 of the IEBC applicable to renovated buildings such that application of the IECC where there is an increase in energy load should not pose a problem. If it were a problem, it is presumed the provisions in Section C101.4.4 would not appear in the IECC. It would also not be considered a way to impose the IECC on retrofits, alterations, renovations or repairs to existing building because those terms have specific definitions as does the specific subject of Chapter 10 and this code change – a change in occupancy. Clearly if located in Chapter 10 as proposed and specifically applied to a change in occupancy as specifically defined in the IEBC it would be unlikely that this would cause the incorrect application of the IECC to a retrofit, repair or renovation.

There will be an increase in cost to the degree that changes in occupancy that previously were not required to meet the energy code will now be required to meet the energy code.

Cost Impact: The code change proposal will increase the cost of construction in some buildings.

EB56-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1011 (NEW)-EB-WILLIAMS.doc

EB57 – 13

1012.2.1.1 (NEW)

Proponent: Charles S. Bajnai, Chesterfield County, VA, ICC Building Code Action Committee

Add new text as follows:

1012.2.1 Fire sprinkler system. Where a change in occupancy classification occurs 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.

1012.2.1.1 Fire sprinkler system Group A occupancy. Where the new occupancy classification requiring an automatic sprinkler system is Group A-1, A-2, A-3 or A-4, an automatic sprinkler system shall be provided throughout the area where the Group A-1, A-2, A-3 or A-4 occupancy is located, and throughout all floors from the Group A occupancy to, and including, the nearest level of exit discharge serving the Group A occupancy.

Reason: This proposal is submitted by the ICC Building Code Action Committee (BCAC). The BCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance an assigned International Code or portion thereof. This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. Since its inception in July, 2011, the BCAC has held 6 open meetings and numerous workgroup calls which included members of the BCAC as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: <http://www.iccsafe.org/cs/BCAC/Pages/default.aspx>.

In almost all cases where Chapter 9 of the IBC specifies the need for a fire suppression system it is due to the inherent fire hazard of the use itself, thus justifying the protection only within the changed area. The exception to that rule is in the Assembly Groups. The trigger for the Assembly Groups A-1, A-2, A-3 and A-4 is the occupant load and it is clear from the expanded requirements found in IBC Section 903.2.1, the protection is to also include the intervening spaces and floors so their egress path is not compromised by a fire located in those areas. We feel that the IEBC should also reflect that intent by adding this new subsection.

Cost Impact: This code change proposal will increase the cost of construction.

EB57-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1012.2.1.1 (NEW)-EB-BAJNAI-BCAC.doc

EB58 – 13

1012.2.2

Proponent: Charles S. Bajnai, Chesterfield County, VA, ICC Building Code Action Committee

Revise as follows:

1012.2.2 Fire alarm and detection system. Where a change in occupancy classification occurs that requires a fire alarm and detection system to be provided based on the new occupancy in accordance with Chapter 9 of the *International Building Code*, such system shall be provided throughout the area where the change of occupancy occurs. Existing alarm notification appliances shall be automatically activated throughout the building. Where the building is not equipped with a fire alarm system, alarm notification appliances shall be provided throughout the area where the *change of occupancy occurs* ~~and shall be automatically activated.~~ in accordance with Section 907 of the *International Building Code* as required for new construction.

Reason: This proposal is submitted by the ICC Building Code Action Committee (BCAC). The BCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance an assigned International Code or portion thereof. This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. Since its inception in July, 2011, the BCAC has held 6 open meetings and numerous workgroup calls which included members of the BCAC as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: <http://www.iccsafe.org/cs/BCAC/Pages/default.aspx>.

In almost all cases where Chapter 9 of the IBC specifies the need for a fire alarm and detection system it is due to the inherent fire hazard of the use. The level of hazard often warrants the notification be provided to all levels of the building even if the detection appliances are not required throughout the building. Section 907 of the IBC identifies when it is appropriate for everyone in the building to hear/see the notification and we believe that same insight is appropriate for existing buildings. Unlike a fire sprinkler system where placing the system in the area will effectively abate the fire hazard, that abatement does not take place with a fire alarm system. The value of the system is diminished without some notification throughout when the fire occurs in an area that is not occupied. Even though this will increase the costs to a change in occupancy project, it is a good compromise when considering the additional safety provided by the additional notification as would be required for new construction.

Cost Impact: This code change proposal will increase the cost of construction.

EB58-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1012.2.2-EB-BAJNAI-BCAC.doc

EB59 – 13

1012.5.1

Proponent: Gene Boecker, Code Consultants, Inc., representing self

Revise as follows:

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.

Exceptions:

1. In other than Groups H, F-1 and S-1, in lieu of fire walls, use of fire barriers having a fire-resistance rating of not less than that specified in Table 706.4 of the *International Building Code*, constructed in accordance with Section 707 of the *International Building Code*, shall be permitted to meet area limitations required for the new occupancy in buildings protected throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the *International Fire Code*.
2. Regardless of height, for high-rise buildings, 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*.

Reason: When the International Building Code changed to disallow the reduction of ratings on columns for high-rise buildings, it created a problem for existing buildings which had previously used the allowed reduction. This provision in the IEBC does not recognize those previously complying buildings. To meet the requirements as currently written, any change in occupancy from an office to a retail area would require a complete upgrade in the fire-resistance rating for all the columns in the entire building. This is excessive for small changes in occupancy and often impractical.

The revised language makes it clear that if the building is protected throughout with an automatic fire sprinkler system, designed to meet NFPA 13 (not 13R), then the column ratings can be what was allowed prior to the code change to the IBC. Additions will need to meet the requirements for new construction, but a change in occupancy of this type should not require the entire building to fall into non-compliance when it was fully compliant when it was built as little as five years ago.

Cost Impact: This code change proposal will not increase the cost of construction.

EB59-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1012.5.1-EB-BOECKER.doc

EB60 – 13

1204.1.1

Proponent: Carl Baldassarra, P.E., Chair, ICC Code Technology Committee

Revise as follows:

1204.1.1 Site arrival points. At least one ~~main entrance shall be accessible~~ route from a site arrival point to an accessible entrance shall be provided.

Reason: For historical buildings, the requirement for the accessible routes from the site arrival point to the accessible entrance should read the same in IBC and IEBC. The current text in IEBC 1204.1.1 does not address where the route should be provided. The IBC text is as follows:

IBC 3411.9.1 (IEBC [B] 410.9.1) Site arrival points. At least one *accessible* route from a site arrival point to an *accessible* entrance shall be provided.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as “areas of study”. Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: <http://www.iccsafe.org/cs/CTC/Pages/default.aspx>. Since its inception in April/2005, the CTC has held twenty five meetings - all open to the public.

Cost Impact: This code change proposal will not increase the cost of construction.

EB60-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1204.1.1-EB-BALDASSARRA-CTC.doc

EB61 – 13

1205.5, 1205.9, Chapter 16

Proponent: Marcelo M. Hirschler, GBH International (gbhint@aol.com)

Revise as follows:

1205.5 Roof covering. Regardless of occupancy or use group, roof-covering materials not less than Class C, when tested in accordance with ASTM E 108 or UL 790, shall be permitted where a fire-retardant roof covering is required.

1205.9 Finishes. Where interior finish materials are required to have a flame spread index of Class C or better, when tested in accordance with ASTM E84 or UL 723, existing nonconforming materials shall be surfaced with approved fire-retardant paint or finish.

Add new standards to Chapter 16 as follows:

ASTM

E84-12c Standard Test Method for Surface Burning Characteristics of Building Materials
E108-11 Standard Test Methods for Fire Tests of Roof Coverings

UL Underwriters Laboratories, Inc.
333 Pfingsten Road
Northbrook, IL 60062-2096

UL 723-2008 Standard for Test for Surface Burning Characteristics of Building Materials
UL 790-2004 Standard Test Methods for Fire Tests of Roof Coverings with revisions through October 2008

Reason: This is basically simple clarification, to avoid confusion between Class C for roof coverings (Section 1205.5) and Class C for flame spread index (Section 1205.9). It adds the same ASTM and UL standards contained in the IBC for the applications.

Cost Impact: This code change proposal will not increase the cost of construction.

Analysis: All of the proposed referenced standards are already referenced in the *International Building Code*.

EB61-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1205.5-EB-HIRSCHLER.doc

EB62 – 13

202 (NEW), 1301.1

Proponent: Carl Baldassarra, P.E., Chair, ICC Code Technology Committee

Add new definition as follows:

SECTION 202 GENERAL DEFINITIONS

RELOCATABLE BUILDING. A partially or completely assembled building constructed and designed to be reused multiple times and transported to different building sites.

Revise as follows:

1301.1 Scope. This chapter provides requirements for relocated or moved structures, including relocatable buildings as defined in Chapter 2.

Reason: This proposed change is a result of the CTC's investigation of the area of study entitled "Relocatable Modular Buildings". The scope of the activity is noted as:

Identify issues related to the administration, installation and relocation of relocatable modular buildings. Relocatable modular buildings present challenges to code enforcement due to the units be originally built to a specified code and then relocated to a new site which dictates that compliance for the new site be evaluated.

The IEBC includes 3 compliance methods for existing buildings:

- Prescriptive compliance per Chapter 4.
- Work area compliance per Chapters 5 – 13
- Performance compliance per Chapter 14

Code change G201-12 last cycle removed the existing building provisions from Chapter 34 of the IBC in favor of a reference to the IEBC. This action was subsequently affirmed by the ICC Board as this was a code change related to I-Code scoping. The end result is that all existing buildings are now uniquely covered by the IEBC. Since Chapter 14 does not address moved buildings, the end result is that the IEBC allows 2 alternatives when dealing with relocated or moved buildings:

- Prescriptive compliance. Section 409 requires moved buildings to comply with new construction requirements
- Work area compliance. Chapter 13 provides the requirements by which to analyze a moved structure to ensure its safety without requiring compliance with all the requirements for new construction.

The purpose of this proposal is effectively editorial. It clarifies that relocatable buildings, as defined, fall under the provisions of Chapter 13. The definition has been distilled from industry publications and definitions found in state statutes that govern modular (industrialized) buildings. This definition was also approved in the 2012 IGCC.

Unlike site-built buildings, which are typically intended to remain on their original site for the life of the building, relocatable modular buildings are designed and intended for relocation, reuse and/or repurposing. Many states have statutes that govern the building and relocating of relocatable modular buildings. For those that do not have state mandated requirements, much confusion and inconsistency exists about the requirements for relocatable modular buildings as existing buildings.

The Modular Building Institute (MBI) (www.modular.org) estimates that there are over 600,000 code compliant relocatable buildings in use in North America today. While it is impossible to determine the exact amount owned by the public at large, MBI estimates that public school districts across North America collectively own and operate about 180,000 relocatable classrooms with the industry owning and leasing an additional 120,000. Additionally, the industry owns and leases approximately 280,000 relocatable buildings for various other business occupancies, including construction site offices and temporary sales offices.

This proposal is submitted by the ICC Code Technology Committee. The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website:

<http://www.iccsafe.org/cs/CTC/Pages/default.aspx>. Since its inception in April/2005, the CTC has held twenty-five meetings - all open to the public. In 2012, three of the 25 face-to-face meetings were held. In addition to the CTC meetings, the CTC established Study Groups (SG) of interested parties for each of the areas of study. These SG's are responsible for reviewing the available information and making recommendations to the CTC. All totaled, the SG's held over 70 conference calls in 2012.

Cost Impact: This code change proposal will not increase the cost of construction.

EB63-13

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1301.1-EB-BALDASSARRA-CTC.doc

EB63 – 13

602.1.1 (New), 702.1.1 (New), 1202.2.1 (New), Chapter 16

Proponent: Rebecca Morley, National Center for Healthy Housing

Add new text as follows:

SECTION 602 BUILDING ELEMENTS AND MATERIALS

602.1 Existing building materials. Materials already in use in a building in compliance with requirements or approvals in effect at the time of their erection or installation shall be permitted to remain in use unless determined by the *code official* to render the building or structure unsafe or *dangerous* as defined in Chapter 2.

602.1.1 Disturbance of existing painted surfaces. In any Group E, I-4, R-2, R-3, R-4 occupancies completed prior to 1978, where repairs disturb painted surfaces, the work shall comply with the information distribution, certification and work practice requirements of 40 CFR 745 for renovations.

Exception: Where documentation is provided from an approved test in accordance with 40 CFR 745.82(a)(1) or (2) that proves that the disturbed paint contains lead levels below specified levels, the work is not required to comply with this section.

SECTION 702 BUILDING ELEMENTS AND MATERIALS

702.1 Interior finishes. All newly installed interior wall and ceiling finishes shall comply with Chapter 8 of the *International Building Code*.

702.1.1 Disturbance of existing painted surfaces. In any Group E, I-4, R-2, R-3, R-4 occupancies completed prior to 1978, where alterations disturb painted surfaces, the work shall comply with the information distribution, certification and work practice requirements of 40 CFR 745 for renovations.

Exception: Where documentation is provided from an approved test in accordance with 40 CFR 745.82(a)(1) or (2) that proves that the disturbed paint contains lead levels below specified levels, the work is not required to comply with this section.

SECTION 1202 REPAIRS

1202.1 General. Repairs to any portion of an *historic building* or structure shall be permitted with original or like materials and original methods of construction, subject to the provisions of this chapter. Hazardous materials, such as asbestos and lead-based paint, shall not be used where the code for new construction would not permit their use in buildings of similar occupancy, purpose and location.

1202.2.1 Disturbance of existing painted surfaces. In any Group E, I-4, R-2, R-3, R-4 occupancies, where repairs disturb painted surfaces, the work shall comply with the information distribution, certification and work practice requirements of 40 CFR 745 for renovations.

Exception: Where documentation is provided from an approved test in accordance with 40 CFR 745.82(a)(1) or (2) that proves that the disturbed paint contains lead levels below specified levels, the work is not required to comply with this section.

Add the following standard to Chapter 16:

40 CFR 745 - July 1, 2012 Lead-Based Paint Poisoning Prevention in Certain Residential Structures

Reason: The purpose of this proposed code language is to incorporate protection from lead-based paint into the Code's requirements. These requirements are already law in every state through the Environmental Protection Agency's Renovation Repair and Painting Rule, which governs work with paint that may contain lead-based paint in order to prevent childhood lead poisoning. These regulations have been in effect since April 2010, and have been adopted by 12 states.

Renovation of painted surfaces is a significant source of lead dust that poisons children. The dangers associated with lead poisoning are well-known: serious health effects, detrimental effects on cognitive and behavioral development, with serious personal and social consequences that may persist throughout their lifetime.

Multiple studies have demonstrated that lead dust is the major source of lead poisoning for young children. There is no safe level of lead exposure for children; lead affects intelligence even at very low levels.^{1,2,5,8,9} Indeed, the rate of IQ loss per 1 microgram of lead per deciliter of blood (µg/dL) is greatest at lead levels below 10 µg/dL. As a child's BLL increases from 1 to 10 µg/dL, experts estimate a child may lose anywhere from 3.9 to 7.4 IQ points, but from 10 to 30 µg/dL the decrement is 2.5 to 3.0 IQ points. Low-level chronic exposure may have an even greater effect on IQ than a single instance of very high BLL.¹⁰

Research indicates that a five-point negative shift in IQ at the population level would increase the number of children with an "extremely low" IQ by 57%, substantially increasing the cost of special education programs.³ Considering the costs to the special education system alone, one study conservatively estimated that it costs \$38,000 over three years to educate a child with lead poisoning.¹¹ Low-level exposure to lead has also been linked to factors other than IQ that can further impact educational outcomes. EBLLs are associated with Attention Deficit Hyperactivity Disorder (ADHD) and antisocial behavior, which in turn increase the likelihood of conduct disorder, criminal activity, and drug abuse.^{1,4} Each 1 µg/dL reduction in the average preschool blood lead level saves \$13.4 billion from the direct and indirect costs of crime.¹

Several recent studies have explored the specific effects of lead on educational outcomes. These studies show a strong relationship between slightly elevated blood lead levels in young children and decreased scores on end-of-grade tests in elementary school. While similar educational effects were documented for higher blood levels decades ago,¹² the recent studies confirm that the connection between blood lead and poor educational outcomes remains true for blood levels as low as 3-4 µg/dL. A more recent study of 57,000 North Carolina children found that children with a BLL as low as 4 µg/dL at three years of age were significantly more likely to be classified as learning-disabled than children with a BLL of 1 µg/dL.⁶

The consequences of lead exposure are clear. This code change proposal seeks to reduce the risk.

The additions to Sections 602, 702, and 1202 add health-protective requirements to protect children from lead poisoning by preventing the dispersal of lead before, during, and after work performed on a pre-1978 home. The information distribution, certification, and lead safe practices requirements are already in effect in federal and state regulation. This change would only affect structures likely to contain lead-based paint: pre-1978 homes. As noted under the exception, the requirement is waived if paint testing proves that the paint is not lead-based paint. A rebuttable presumption of lead's presence allows the builder to demonstrate that lead is not present and obtain exemption from the requirements. EPA-approved tests include lead-based paint inspection or risk assessment, test kit used by a certified renovator, and collection of a lead-based paint chips for laboratory analysis.

The EPA 40 CFR 745 standard is available at <http://www.gpo.gov/fdsys/pkg/CFR-2012-title40-vol32/xml/CFR-2012-title40-vol32-part745.xml>.

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Cost Impact: This code change proposal will not increase the cost of additions, alterations or repairs since these federal/state requirements are already in effect.

Staff analysis: A review of the standard proposed for inclusion in the code, 40 CFR 745 -July 1, 2012 with regard to the ICC criteria for referenced standards (Section 3.6 of CP#28) will be posted on the ICC website on or before April 1, 2013.

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