

# 2009 -2015 IBC Significant Changes Summary

## Tier I

- 503 – General Building Height & Area Limitations – Methods for determining allowable heights and areas have been dramatically revised and reformatted to improve user-friendliness – 3 revised Tables with no change in technical application – Does not alter results
- 308.3 - Classification segmentation of I-1 Occupancies into two conditions – Condition 1 (capable of self-preservation and egress) – Condition 2 (Assisted egress and defend-in-place methods) – More stringent requirements for story limitations, smoke barriers, sprinkler protection, and fire detection
- 308.4 - Classification segmentation of I-2 Occupancies into two conditions – Condition 1 (long-term care facilities) – Condition 2 (short-term medical facilities) – More stringent requirements for story limitations, smoke barriers, sprinkler protection, and fire detection
- 407.2.5 – Group I-2 Shared Living Spaces – Adds specific requirements to allow shared spaces to be part of, and open to, corridors where egress is not impeded
- 407.2.6 – Group I-2 Cooking Facilities – Adds specific requirements to allow cooking spaces to be part of, and open to, corridors where egress is not impeded
- 407.5 – I-2, Condition 2 - Smoke Compartment maximum size increased to 40,000 sf
- 507.9 – Group H-5 in Unlimited Area Buildings – The fire-safety controls of Section 415.11 (H-5) adequately reduce the hazards to those similar to a B Occupancy, and therefore can take advantage of similar code relief
- 705.3 – Buildings on the same lot – Allows a Type I or IIA, S-2 parking garage directly adjacent to a R-2 building – Allows occupant-use openings between the structures, but only requires opening protection in the exterior wall of the parking garage – 90 minute protection is required
- 903.2.1.6 – Sprinkler Systems in Assembly Occupancies – When an assembly use is established on an occupied roof – A-2 > 100 or any other A > 300, all floors below will be required to be sprinklered to the level of exit discharge
- 903.2.1.7- Multiple Fire Areas – Group A-1, A-2, A-3, and A-4 that share egress components, and contain more than 300 occupants, will be sprinklered, regardless of size
- Chapter 10 – MOE – Dramatic renumbering and provision relocation – Examples: 1015 now 1006, 1021 deleted, 1007 now Exit and Exit Access, 1009 now AMOE
- 1110 – Recreational Facilities – More detailed scoping requirements have been provided to coordinate with the ADA – Added scoping for technical requirements to align with Chapter 11 of the A117.1 standard.
- 1705.2.3 – Open Web Steel Joists and Joist Girders – Addition – Special inspections are now required during the installation – Types of inspections and reference standards identified
- 2612 – Plastic Composites – Addition – New definitions and applicable test standards for plastic composites used in decks, stairs, handrails, and guards
- 2902.3 – Public Toilet Facilities – Limited-size quick-service tenant spaces (300 sf or less) are no longer required to provide toilet facilities for public customers
- 3004 – Elevator Hoistway Venting – Provisions have been deleted - No longer required to be vented to the exterior – Technology advances and energy concerns have eliminated the historical justification
- 3006 – Elevator Lobbies – All requirements have been relocated from Chapter 7
- Chapter 34 - Deletion of Chapter 34 – Existing Buildings – IEBC is the now the only tool
- Chapter 35 - 2015 IBC References the 2009 ICC/ANSI A117.1 Accessibility standard – New Chapter 11 within for recreation

## Tier II

- 111.1 – Change of use or occupancy terms are synonymous – New CO's required on change
- 310.6 - Classification segmentation of R-4 Occupancies into two conditions – Condition 1 (capable of self-preservation and egress) – Condition 2 (Assisted egress and methods) – Further research ramifications
- 311.1.1 – Small storage rooms (less than 100 sf) are automatically accessory and not classified separately – Aggregates are still limited to 10% of the floor area
- 404.5 – Atriums - Smoke control is now mandated in I-2 and I-1, Condition 2 that connect two stories
- 404.9 & 404.10 – Egress travel through an atrium – Greatly expands the language regulating the provisions and referenced sections, but does not significantly change intent
- 505.2.3, Ex 2 – Mezzanine Openness – Direct access to at least one exit at the mezzanine level is no longer required
- Table 509 – Fire Protection of Incidental Uses – This table has been extensively expanded to include occupancy specifics and clarifications – Nifty comparison table to 2012 IBC in SC
- 711 & 712 – Horizontal assemblies and Vertical openings – Sections have been reorganized to separate requirements, and provide better clarity
- 903.2.8 – Group R Sprinkler Systems – Numerous changes and clarifications for R-4's due to the new use conditions
- 903.3.1.1.2 – NFPA 13 Exempt Locations – An exemption for bathrooms no more than 55 sf to align the IBC with recent changes to NFPA
- 903.3.1.2.2 – Breezeways – It clarifies that open-ended corridors, and associated stairways, and ramps must be protected when a 13R system is used – Not exempt
- 903.3.8 – Limited Area Sprinkler System – Reduces the exceptions for small systems serving a single fire area from 20 to 6
- 915 – Carbon Monoxide Detection – Relocated and expanded requirements – Group E added – Group I-3 excluded
- 1006 & 1007 – Number of Exits and Exit Access Doorways – Major reconsolidation of provisions – New Table 1006.2.1 (all previous provisions & some minor changes) – The Common Paths in non-sprinklered occupancies that require sprinklers have been changed from a number to NP – Extensive overall change
- 1007.1 - Exits and Exit Access Doorway Configuration – Clarification of measurement points – Remoteness must be maintained in exit access stairways and ramps – Performance language added to remoteness of three exits
- 1010.1.9 – Door Operations & Locking Systems – Numerous revisions throughout the locking provisions help clarify application through consistent terminology
- 1016.2 – Egress through Intervening Spaces – A means of egress is now permitted through an elevator lobby, provided access to at least one exit is available without passing through the lobby – Clears up misconception
- 1017.2.2 – Travel Distance increase for F-1 & S-1 – Increase to 400 feet if conditions are met
- 1023.3.1 – Stairway Extension – An interior exit stairway is now permitted to be open directly to an exit passageway – No door is required
- 1103.2.8 – Areas in Places of Religious Worship – Small areas (Defined in the change) used for religious ceremonies are now exempt from access requirements
- 1104.4 – Multi-story Buildings and Facilities – Clarifies the Group M exception – Clarifies that government buildings may not use the exception

- 1107.3 & 1107.4 – Accessible Spaces and Routes – Provisions for connecting all spaces within a building have been modified – Distinctions have been provided for changes in elevation for stories and mezzanines – R-2 Dormitories not exempt
- 1107.5.1.1 & 1107.6.4.1 – Accessible Units in Assisted Living Facilities – The number of accessible units now depends on the capability of the residents
- 1107.6.1.1 – Group R Accessible units – Modification of how multiple buildings on a site are evaluated – Building size is described
- 1109.2 – Accessible Water Closet Compartments – In larger toilet rooms, 5% must be wheelchair accessible, and 5% must be ambulatory – New exception for toilet and bathing rooms serving bariatric patients
- 1602.1 – Definitions and Notations – The definitions of flexible and rigid diaphragms have been deleted and replaced with a reference to the procedures within the 2010 national load standard (ASCE/SEI 7-10) – Inconsistencies resolved
- 1603 – Construction Documents – Modification – Two additional roof snow items are required to be identified on the construction documents – Drift surcharge & Width of snow drifts
- 1603.1.8 – Special Loads – Addition – The dead load of rooftop PV must be identified on the construction documents
- 1607.12 – Roof Loads – Addition – The term vegetative roof has been defined in 202 and a reference to ASTM E 2397 has been added
- 1607.12.5 – Photovoltaic Panel Systems – Addition – Design requirements for roof structures have been added
- 1613.6 – Ballasted Photovoltaic Panel Systems – Addition – Seismic requirements added
- 1704.5 – Submittals to the Building Official – Addition – Requirements for submittal of reports and certificates are now clearly specified
- 1705.2 – Steel Construction – The special inspection requirements have been modified to align with the new terminology – References new SDI standard
- 1705.3 – Required Special Inspections of Concrete Construction – Specific requirements for the design and installation of adhesive anchors are now included in ACI 318, and continuous inspection added for defined loads
- 1804.1 – Excavation Near Foundations – Addition – Basic requirements have been added since the code was not specific
- 1808.3 – Design Surcharge Loads – Addition – Requirements to protect adjacent structures has been added
- 1901.3 – Anchoring to Concrete – Previous Sections 1908 and 1909 have been deleted due to inconsistency – New provisions have been added to the general requirements
- 1901.4 – Composite Structural Steel and Concrete Structures – Previous specific requirements have been deleted – New provisions have been added to the general requirements
- 2304.6 – Exterior Wall Sheathing – Section has been modified to establish minimum structural performance requirements and clarify provisions – References ASCE/SEI 7-10 – The term gable has been added
- 2308 – Conventional Light-frame Construction – Much of the Section is extensively reformatted and reorganized – New wall bracing designations and requirements, similar to the IRC, are provided
- 2309 – Wood Frame Construction Manual – Added Section – Manual allows designs for Risk Category I and II within described limitations
- 2406.4.7 – Safety Glazing adjacent to Bottom Stair Landing – Method of measurement revised to provide clarity – Restores 2009 language

## Tier III

- 202 – Definition of Private Garage added – For motor vehicles used by the tenants of the building – No repair or service for profit
- 202 – Definition of Horizontal Exit changed to focus on compartmentalization versus the path of egress travel
- 304.1 – Independent commercial kitchens < 2500 sf now included in the B Occupancy list
- 304.1 – Training and skill development description expanded for clarification in the B Occupancy list
- 306.2 - Independent commercial kitchens > 2500 sf clarified in the F-1 Occupancy list
- 310.5 – Lodging Houses (typical B&B's) clarified – 5 or fewer guest rooms – Constructed as IRC or R-3 – Change in 2012 IRC did not get carried to IBC
- 403.1, Ex 3 & 5 – Clarification of provisions when A-5, or H-1 thru H-3 are present in a high-rise – Self-limited by other specific requirements
- 406.3.1 – Private Garage floor area limitation (Group U) – Limited to 1000 sf, unless compartmentalized by 1-hour fire separations
- 412.7 – Travel distance in aircraft manufacturing facilities – Recognizes the current travel distance limits are problematic in large facilities – Introduces new table to derive compliance
- 510.2 – Horizontal Building Separation – The single story limit above grade is removed – Overall building height control remains the same
- Table 601, Footnote d – One-Hour substitution – Removed because application was extremely limited, and to eliminate misuse.
- 602.4 – Type IV Requirements – FRTW and cross-laminated timber (CLT) now allowed within exterior walls – Introduces structural composite lumber (SCL) into the size equivalency table
- 603.1, Item 26 – Wall construction of freezers and coolers – May be framed with combustible materials, if covered with non-combustible materials, are of less than 1000 sf of floor area, and the building is fully sprinklered
- 705.2 – Projections at Exterior Walls – The minimum required separation between leading edge of a projection and the line used to determine the FSD has been modified – Dramatically – Question intent and logic – Worst-case example changes from 40 inches clear to 20 feet
- 705.2.3 – Combustible Projections – Confusing language to determine application removed
- 706.2 – Structural Stability – Small language clarifications – Acknowledges tied and cantilevered options in NFPA 221
- 714.4.2 – Membrane penetrations – Further clarification of a wood, double top plate intersecting a horizontal assembly's lower membrane
- 904.13 – Domestic cooking systems in Group I-2, Condition 1 – Creates reasonable accommodations for industry designs while adding proper safeguards
- 907.2.3 – Group E – Manual Fire Alarms – Increases threshold to 50 – Increases EVAC threshold to 100
- 909.21.1 – Elevator Hoistway Pressurization Alternative – Creates viable alternatives to the traditional testing and measurement requirements
- 910 – Smoke and Heat Removal – Updated revisions for clarity – Allows mechanical smoke removal systems – Draft curtain provisions deleted – Based on the Technology Committees' evaluation of current available safeguards
- 1004.1.1 – Cumulative occupant loads – Clarifications for intervening spaces and mezzanine
- 1004.1.2 – Occupant load factor for Group M main levels and basements raised to 60 sf – Now all levels 60 SF
- 1009.8 - Two-way Communication Systems – Clarifies that a system may serve multiple elevators – Not required at service, freight, or private residence elevators

- 1011.15 & 1011.16 – Ladders – Addition – Permitted locations identified – Requirements in the IMC
- 1014.8 – Handrail Projections – Guidance provided for obstructions of required stairway widths with intermediate handrails
- 1018.3 – Aisles in Groups B & M – Clarifications of required width – Aligns with corridor widths now
- 1020.2 – Corridor Width and Capacity – Clarification for I-2 where bed or stretcher movement is necessary
- 1109.2.3 – Accessible Lavatories – Modification - The only accessible lavatory in a toilet room may not be in the accessible water compartment closet
- 1405.3 – Vapor Retarders – The required types and locations for each class of vapor retarder have been revised – Clarifies prohibited locations
- 1604.3 – Serviceability – Modifications have been made to the deflection limits of varying members to clarify and update
- 1607.9 – Impact Loads for Façade Access Equipment – Addition – New provisions added to align with OSHA requirements
- 1607.10.2 – Alternate Uniform Live Load Reduction – This method has been corrected to be consistent with the original intent as it appeared in the UBC
- 1609.1.1 – Determination of Wind Loads – New wind tunnel test added – ASCE 49
- 1613.5 – Amendments to ASCE 7 – Addition – Amendment to the diaphragm anchorage requirements – Clarifies aspect ratios
- 1705.11 – Special Inspection for Wind Resistance – Clarifies intent and specific requirements
- 1705.12 – Special Inspection for Seismic Resistance – Addition – Periodic special inspection of cold-formed steel special bolted moment frames is now mandated – Several modifications to other special inspections for seismic
- 1708.3.2 – Static Load Testing – Requirements have been revised to clarify intent – Arbitrary factor of two removed – Methods of testing are specified – Differences influenced by load duration effects when testing wood elements now addressed
- 1709.5 – Exterior Window and Door Assemblies – Clarifies that design pressure ratings are to be done on an allowable stress design basis
- 1711 – Material and Test Standards – Requirements for testing joist hangers has been deleted – Testing of concrete and clay roof tiles relocated to 1504
- 1803.5 – Investigated Conditions – The requirements addressing the evaluation of rock materials have been updated to align with current geotechnical engineering practice – Underpinning and excavation requirements have been added
- 1810.2.5 – Group Effects – Clarification of the requirements on uplift of grouped deep foundation elements
- 1810.3 - Design and Detailing – Addition – Provisions for structural steel piles have been added to clarify intent
- 1904 – Durability Requirements – IBC requirements have been deleted and replaced by a reference to ACI 318's (2014) requirements
- 1905.1.3 – Modifications to ACI 318, Section 18.5 - IBC requirements have been deleted and replaced by a reference to ACI 318's (2014) requirements
- 1905.1.8 – Extensive modifications have been made to the concrete anchorage provisions to achieve consistency with Chapter 17 of ACI 318's (2014) requirements
- 2101.2 - Masonry Design Methods – References to the MSJC have been deleted because the 2013 edition of TMS 402/ACI 530/ASCE 5 have been substantially reorganized to be more user-friendly – Section now simply references these documents

- 2103 – Masonry Construction Materials – Provisions have been deleted because they are now contained in TMS 602/ACI 530.1/ASCE 6
- 2104 – Masonry Construction – Provisions have been deleted because they are now contained in TMS 602/ACI 530.1/ASCE 6
- 2105 – Quality Assurance – Provisions have been deleted because they are now contained in TMS 602/ACI 530.1/ASCE 6 and the special inspection and testing requirements of Chapter 17
- 2111 & 2113 – Masonry Fireplaces and Chimneys – Definitions relocated to 202 – Reinforcement and anchorage requirements updated to clarify intent
- 2210 – Cold-formed Steel – A new SDI standard for composite decks has been added to Chapter 35
- 2211 - Cold-formed Steel Light-frame Construction – A new AISI standard (S220) is now referenced for non-structural products
- 2303.1.4 – Structural Glued Cross-laminated Timber – Abbreviated CLT – New definition added to 202 – New standard ANSI/APA PRG 320
- 2303.1.13 – Engineered Wood Rim Board - New definition added to 202 – Two new referenced standards in Chapter 35
- 2304.10.6 – Load Path – Requirements for steel straps modified to align with AISI Product Data Standard S201
- 2304.12 – Protection against Decay and Termites – Modifications clarify where waterborne preservatives are required and where they are not required
- Chapter 25 – Gypsum Panel Products – Definition of gypsum board revised and a new definition for gypsum panel products added to 202 – Terms aligned throughout Chapter