

Important Changes to the 2018 IBC for R-2 (Apartments)

Approved Items 1-53

Item No.	Proposal #	Section(s) & Issue(s)	Type of Change	Cost Implication	Comment
IBC-Means of Egress					
1	E25-15	IBC 1006.3 Egress from stories or occupied roofs. & 1006.3.1 Egress based on occupant load.	Revision	No Change	Means of Egress from Story or Roof. Clarifies that when determining the means of egress design requirements from a story or occupied roof, each story or roof will be provided with the minimum number of exits for that specific level. The revised language clarifies that an exit access stairway cannot serve as the exits for both floors and ensures that each level is provided with the proper number of exits.
2	E27-15	IBC 1006.3.1 Adjacent story.	Major Change	Decrease	Means of Egress Exception. New exceptions have been provided to the provision which only permits the exit path of travel to pass through one adjacent story. These include exit access stairways and ramps in : - Group R-1, R-2 or R-3. - Congregate residence (R-3) and group R-4 facilities. - Parking garages. -Open-air assemblies -Exit components between press boxes, galleries or balconies and the main level of occupancies like auditoriums, sport facilities and places of religious worship.
3	E32-15	IBC 1008.2.2 Exit discharge & 1008.3.5 Illumination level under emergency power.	Clarification	No change	Means of Egress Lighting. Clarifies that the required illumination within the means of egress illumination shall not be designed such that the failure of an individual lamp in the emergency lighting fixture shall produce less than 1 foot candle level of illumination on the landing.
4	E40-15	IBC 1009.7.2 Separation.	New Exception	Decrease	Reduction in Fire Rating. New exception allows for the reduction of the 1 hour fire-resistance rating of the exterior wall assembly between the building and the exterior area of assisted rescue, provided the building is equipped throughout with either a NFPA 13 or 13R automatic sprinkler system.
5	E82-15	IBC 1011.6 Stairway landings.	Clarification	No Change	Stairway Landing. Clarification regarding the minimum requirement for 48 inches of landing in the direction of travel, when a stairway has a straight run towards the landing.
6	E145-15	IBC 1030.1 Emergency Escape and Rescue Openings	New Exception	Decrease	Exception for Means of Egress. Provides new exception for emergency escape and rescue in sprinklered R-2 and R-3 dwelling units. In sprinkler buildings the code will now permit one means of egress and one emergency escape and rescue opening or two means of egress.
IBC-Fire Safety					
8	FS7-15	IBC 704.2 Column protection.	New Exception	Decrease	Light Frame Fire Protection. In light frame construction, contractors will no longer have to provide additional protection of the framing members (individual encasement of two or more vertical studs), provided the framing members are enclosed within a fire-resistance rated wall assembly and are located between the top and bottom plates, or tracks.
9	FS29-15	IBC 706.2 Structural Stability	Major change	Decrease	Fire Wall Framing. Light frame construction practices have required fire walls to be designed to avoid damage to or structural failure of the fire wall, in the event that the structure on either side of the fire wall should collapse. Fire walls have been required to be anchored to wall framing on either side with break away fasteners and be independent of the structure framing. This new exception allows for double framed firewalls with limited continuous sheathing from one structure to the other, provided the framing complies with NFPA 221 and the sheathing does not exceed 3/4 inch in thickness.
IBC General					
10	G9-15	IBC Sleeping Unit	Revised Definition	Decrease	Definition of Unit/Sleeping Unit. The significance of the change in defining sleeping unit, is the use of the term unit versus room. In previous editions of the IBC, a sleeping unit was defined by the room in which the occupant had the provisions for living, eating and either sanitation or cooking. By defining the space as a unit, the code will now classify the entire unit where these features are present opening up suites found in dormitories, hotels and assisted living as sleeping units.

11	G24-15	503.1.4 Occupied roofs	Major Change	Decrease	Occupied Roof. This is a major change for defining and classifying the appropriate use of an occupied roofs. These provisions outline the occupant loads, acceptable use groups for occupying roofs or portions thereof, establish the allowable height limitations, provide specific language and guidelines for when the occupied roof qualifies as a story. This change will create a uniform understanding for designers and code officials across the country for occupied roofs and provide the needed guidance for the determining the appropriate level of life safety for allowing the use of the roof as an occupied space.
12	G97-15	IBC 406.3 Private garages and carports.	Major Change	Decrease	Private Garage. Previously, the code required a 1,000 square foot limitation on all private garages and for each garage to be separated by 1 hour rated assemblies. Under this new provision, private garages can be built using the same provisions allowed for open parking garages when the garage is used for the private use of a tenant or occupant.
13	G102-15	IBC 406.6.2 Ventilation.	Clarification	No Change	Garage Ventilation. Clarification that enclosed parking garages must be provided with a ventilation and exhaust system in accordance with the International Mechanical Code.
14	G118-15	IBC 420.2 Separation walls in sleeping units.	New Exception	Decrease	Dormitory Sleeping Unit. The new exceptions are intended to treat sleeping rooms in dormitories, suites and assisted living spaces as one combined unit. Previously, the code required sleeping rooms to be separated from other components such as bathrooms and living spaces by a fire partition. The exceptions intend to treat these areas similar to that of an apartment and maintain separation from other units and the corridors.
15	G121-15	IBC 420.7 Dormitory cooking facilities.	Major Change	Decrease	Dormitory Cooking. This s a new requirement addressing the use of cooking facilities in dormitives in R-2 occupancies. The specifically limits to the use of domestic appliances and does not allow any cooking appliances in sleeping rooms.
16	G130-15	IBC 503.1, 706.1 Fire wall separation of buildings	Major Change	Decrease	Building Separation. Previously, the code required all buildings to be considered independent and separate from other portions of the structure when a fire wall was present. This often required the buildings on either side of the fire wall to be provided with independent means of egress, separate utilities, individual addresses, and self contained life safety systems. This change now clarifies that the fire wall is only provided to ensure that the portions of the building separated by the fire wall is to solely limit the height and area of the building into individual compartments that do not exceed the limitations established by the code.
17	G138-15	IBC 505.2.1 Mezzanines in residential	Revision	No Change	Mezzanine Area Increase. The change increases the allowable area for mezzanines from 1/3 to 1/2 of the area of the floor below.
18	G160-15	IBC 510.2 Horizontal building separation allowance.	New Option	No Change	Vertical Offset in Pedestal Buildings. Change revises the option for pedestal buildings allowing a vertical offsets in pedestal buildings if the fire-resistance rating of the vertical offset is not less than 3 hours.
19	G175-15	IBC 602.3, 602.4.1 Fire-retardant-treated wood in exterior walls.	Clarification	No Change	Fire-Retardant Treat Wood. Previous editions of the building code allowed fire-retardant-treated wood within 2-hour fire-rated exterior walls assemblies, yet was silent on wood sheathing. Language was added to clarify that wood sheathing must also be treated with fire-retardant chemicals in order to be used as part of the 2-hour fire rated assembly.
20	G185-15	IBC 603.1 Allowable combustible materials for balconies, porches and decks.	New Option	No Change	Use of Fire-Retardant Treat Wood. This change adds a new option that allows fire-retardant-treated wood to be used on balconies, porches, decks and exterior stairways that are not used as required exits on buildings three stores or less above grade plane.
21	G195-15	IBC 3001.2 (New) Emergency communication for the deaf, hard of hearing and speech impaired	Major Change	Increase	Two-way Communications. This significant change in the building code addresses a gap in the emergency two-way communication that is currently provided in elevators for individuals who are deaf, hard of hearing or speech impaired. Under the 2018 IBC, all new elevators will be required to provide emergency communication devices capable of visual and text-based communication and video-based interactive capability to assist those individuals unable to use the current emergency communication systems provided. Based on the limited information provided for the devices in the code and no reference to a performance standards, building owners, designers and elevator provider should first seek the approval by the authority having jurisdiction for any devices or systems prior to installation.
22	G201-15	IBC 3006.2.1 Elevator hoist way opening into Rated corridors	Clarification	No Change	Elevator Lobbies. In previous editions of the code, there was a lack of clarity on whether the elevator hoist way opening was considered protected by the enclosed lobby, when the hoist way opened into a fire resistant rated corridor. The new language clarifies that it is the intent of the code to require opening protection to the hoist way, even when the elevator opens into an enclosed elevator lobby.

23	G202-15	IBC 405.4.3, 708.1, 716.5.9.3, [F] 907.5.2.1 (IFC 907.5.2.1), 3006.4, 3007.6, 3007.6.1, 3007.6.3, 3007.9, 3007.9.1, 3008.6 Enclosed elevator lobby.	Clarification	No Change	Elevator Lobby When Required. This is a multi-sectional clarification throughout the IBC to clarify when an enclosed elevator lobby is required.
24	G203-15	IBC 3007.1 Fire service access elevator	Major Change	Decrease	Fire Service Access Elevators. The change consists of two parts, with the first reducing the number of floors served by the Fire Service Access Elevators (FSAE) to those floors above and including the lowest level of the building that provides fire department vehicle access. The second part of the change, is elevators that only serve an open or enclosed parking garage with access limited to the building lobby are no longer required to be constructed as a FSAE.
25	G204-15	IBC 3007.3 Water protection of hoist way	Clarification	No Change	Water Protection of Hoistway. Clarification that the intent of this section is preventing water from outside the enclosed lobby from entering the elevator hoist way.
26	G207-15	IBC 3008.1, 3008.1.1 & 3008.8 Occupant evacuation elevators	Major Change	Decrease	Occupant Evacuation Elevators. This change significantly affects the required number, use and design of occupant evacuation elevators in three ways. First, it clarifies that only the elevators to be used for occupant evacuation need to comply with this section of the code, where as the code previously required all passenger elevators in the building had to comply. Second, it adds two option for determining the proper number of occupant evacuation elevators to be installed (1-hour total building evacuation or 5 consecutive floors in 15 minutes). Lastly, the code clarifies that only those elevators classified and used as occupant evacuation elevators shall be provided with stand by power.
27	G208-15	IBC 3008.1, 3008.6.1 Occupant evacuation elevators	New Exception	Decrease	Occupant Evacuation Elevator in Parking Garages. This exception exempts elevators that serve open and enclosed parking garages from be designed to the requirements for occupant evacuation elevators.
28	G229-15	IBC 3310.1 Stairways during construction	Clarification	Increase	Stairways During Construction. Previously, the code required that when a building reached 50 feet, either a temporary or permanent stair must be provided. Moving forward, all buildings under construction must provide the temporary or permanent stairway when the building reaches 40 feet and the required standpipe must be located in this stairway.
Existing Building					
29	EB13-15	IEBC Section New Section 301.1.5 Accessibility	Major Change	Decrease	Accessibility Exemption for Existing Buildings. This significant change addresses the various changes that have been approved for the 2015 edition of the ANSI A117.1 Accessible & Useable Building & Facilities standard. These changes include increased clear floor space for wheeled mobility devices from 30"x 48" to 30" x 52". The increase affects corridor widths at turns, turns around objects, navigating bathroom stalls and increasing the turn around space from 60" to 67" diameter. While these changes require additional space and can more easily be incorporated into new construction, the affect that these changes would have had on existing buildings would have been detrimental. This new section clarifies that for existing buildings are required to maintain the accessible features within the building and that the accessible requirements must meet the 2009 edition of the A117.1 standard.
30	EB16-15	IEBC Section 401.2.4	Major Clarification	Decrease	Decrease of Fire Resistance Rating. Previously, the IEBC allowed under the work area method that the fire resistance rating of building elements could be decreased in buildings that were protected throughout with an automatic suppression system in accordance with NFPA 13 or NFPA 13R, when approved by the Authority Having Jurisdiction. The 2018 edition of the IEBC will allow this same reduction, when building owners or designers elects to use the Prescriptive method.
31	EB21-15	IEBC Section 402.6 Carbon monoxide detection existing buildings	Major Change	Increase	Carbon Monoxide Alarms. The change essentially places a cross reference in the IEBC to the existing requirements in the IFC for installation of carbon monoxide alarms. Any addition to an I-1, I-2, I-4 or R occupancy will require the installation of carbon monoxide detectors in the entire structure.
32	EB28-15	IEBC Section 405.5 Exception for opening protection	New Exception	Decrease	Opening Protection. In previous editions of the IEBC, only when the building owner or designer elected to use the work area method were they allowed to omit opening protection along the fire escape when the building was equipped with an automatic suppression system throughout. This new exception provides the same exception when the prescriptive method is used.
33	EB39-15	IEBC Sections 410.6 Type B unit exception	Major Revision	Increase	Type B Dwelling and Work Area. In the previous editions of the code Type B dwelling units were not required to comply with the accessibility requirements when a building had a change of occupancy. The exception will now only be permitted with the work area is 50 percent or less of the aggregate area of the building.

34	EB40-15	IEBC Section 410.8.1, 705.1.1 Accessible entrance	Minor Clarification	No Change	Accessible Entrance. Under both the prescriptive and the work area method, the new language has been revised to clarify that where an inaccessible entrance is being altered, it shall not have to meet the accessible features, provided there is another accessible entrance into the building.
35	EB49-15	IEBC Sections 410.8.11 (New), 806.3 (New)	Major Change	Increase	Accessible Bathroom. In the 2018 edition of the IEBC, both mercantile and assembly occupancies and recreational facilities will have to provide an accessible family/unisex bathroom in addition to any other required toilet and bathing facilities, when an existing building undergoing an addition or alteration includes the addition of any number of toilet fixtures.
36	EB61-15	IEBC Section 904.2 Automatic sprinkler requirement Level III alterations	Major Change	Increase/Decrease	Sprinkler Requirements Level III Alterations. Beginning in the 2018 IEBC, all level III alterations in buildings which include a work area that has more than 30 occupants sharing an exit or corridor shall be required to install an automatic suppression system where there is sufficient water to the site and where a sprinkler system would be required under the IBC. At the same time, section 804.2 which contained similar requirements for level II alterations was deleted.
37	EB65-15	IBCC Section 906.2	Major Change	No Change	Specific Date for Type B Dwelling Unit Compliance. Clarifies and ties alterations of Type B units to only being required to comply with A117.1 to the HUD Fair Housing Accessible Guidelines to buildings that were constructed after March 14, 1991.
Administrative Changes					
38	ADM82 -16 Part I	Part I: IBC: [A] 110.1; IEBC: [A] 109.1; IFC: [A] 106.3; IFGC: [A] 107.1; IMC: [A] 107.1; IPC: [A] 107.1; IPSDC: [A] 107.1.1; ISPSC: [A] 106.1; IWUIC: [A] 109.1.1 Part II: IECC-CE: C104.1 Part III: IECC-RE: R104.1	Clarification	No Change	Inspection Exposure. Revise language regarding inspections and the need for certain phases of construction to be left exposed prior to concealment. The code currently uses the term accessible in two ways, the first is in reference to individuals with disabilities and the other is in a way to allow easy or immediate access to equipment or systems
39	ADM94	Reference Standards	Update	Increase/Decrease	Standards Update. ADM94 updated the reference to latest editions of the standards referenced in the ICC codes. Cost increase or decrease will depend on the changes made to the individual standard.
40	ADM94	ASTM 7-16	Update	Increase	Structural Loading. Update of ASCE 7 increases the design loads and expands in some cases the seismic design areas.
Energy Code- Commercial					
41	CE196-16	C405.2.4	Change	Increase	Exterior Time-Switch. Adds new requirement for a programmable exterior time-switch control for exterior lighting that has a clock that is not less than 7 day programmable, incorporates an automatic holiday setback feature and program backup capabilities that prevent the loss of programming.
International Fire Code					
42	F6-16	IFC 304.3.3	Clarification	No change	Dumpsters in Buildings. Clarifies the exceptions for dumpster and containers inside and adjacent to buildings where protected by automatic sprinkler systems.
43	F56 -16	510.4.2.3, 604.2.3, IBC [F] 2702.2.3	Major Change	Decrease	Stand-by Power. Revises the duration for stand-by power to the emergency responders communication to last a minimum of 12 hours versus the 24 hours currently required under the 2015 IFC.
44	F57 -16	510.4.2.3, 604.2.3; IBC [F] 2702.2.3	Major Change	No change	Stand-by Power. Revises the duration for stand-by power to the emergency responders communication to last a minimum of 12 hours versus the 24 hours currently required under the 2015 IFC.
45	F59 -16	IFC: 510.4.2.5, 510.4.2.5 (New).	Major Change	Increase	Monitoring Emergency Radio. Adds new requirements for the monitoring the emergency radio enhancement system by a listed fire alarm control unit or by an audible signal at a constantly attended on-site location.
46	F85-16 Part I	IFC: 605.11, 605.11.1, 605.11.1.1, 605.11.1.2, 605.11.1.2.1, 605.11.1.2.1 (New), 605.11.1.2.2, 605.11.1.2.2 (New), 605.11.1.2.2.1 (New), 605.11.1.2.3, 605.11.1.2.4, 605.11.1.2.5, 605.11.1.3, 605.11.1.3.1, 605.11.1.3.2, 605.11.1.3.3, 605.11.2.	Major Change	Depends	Fire Fighter Safety - Solar Panels. Revises the provisions related to fire fighter safety in and around solar photovoltaic systems when installed in residential and non-residential occupancies. The 2018 code will now require a minimum of 4'-0" pathways around all PV panels to allow firefighter access to conduct rooftop operations for smoke extraction and by providing 4'x8' clear areas every 20'-0" along the pathways to provide venting cutouts.

47	F172-16	New IBC 903.3.1.2.3	Major Change	Increase	<p>Pedestal Construction - Fire Protection. New provision in code tied directly to pedestal construction with Type III, IV and V construction if the roof assembly is located more than 55 feet above the fire department access. The change was submitted and approved in lieu of the numbers proposal submitted as a means to address the issue in other ways by limiting the high of these types of buildings, requiring full NFPA 13 sprinklers systems, additional access roads, etc. Pedestal buildings constructed to the 2018 IBC will have to include one of the following:</p> <p>Sprinkler Protection in Attics Attic Built of Non-Combustible Construction Attics to be Built of Fire-Retardant-Treat Wood, or Attic Filled with Non-Combustible Insulation.</p>
48	F197-16	907.2.13.3 (New) (IBC [F] 907.2.13.3 (New))	Major Change	Increase	Alarm Systems. Adds language to require multi-channel notifications in the alarm systems of high-rise buildings, in lieu of single channel systems.
49	F213-16	IBC and IFC 907.2.9.1	New Exception	Unknown	Fire Alarm Technology. Inserts into the code provisions to allow for new technology when fire alarm systems are required
50	F228-16	IBC 105.7.19 (New)	New Requirement	Increase	Mass Notification Systems. Adds requirements for when mass notification systems must be installed, tested and maintained per NFPA 72 in new Group B and college-university buildings in Group B, A, and R-2.
51	F247-16	1104.18, Table 1104.18	Clarification	No change	Length of Dead-end Corridors. The code change removes a conflict regarding the allowable length of dead-end corridors currently permitted under the IBC. The code change correlates the IFC with the provisions from the IBC for existing conditions in existing buildings and clarifies that all new or altered corridors must meet the requirements established for new construction.
52	F327-16	IFC: 3304.5, 3304.5.1 (New), 3304.5.2 (New), 3304.5.3 (New), 3308.1, 3308.1 (New), 3308.2, 3308.3, 3308.4, 3308.5, 3308.6, 3308.7, 3309.1, 3309.2 (New).	Major Change	Increase	Fire Watch Duties. Adds new language extending the duties and responsibilities of fire watch personnel and fire watch plan or recordation.
53	F329-16	3304.5.1 (New); IBC 3314 (New), [F] 3314.1	Major Change	Increase	Fire Watch at 40 feet. Adds new language requiring all construction projects dealing with combustible materials to employ a fire watch when the structure exceeds 40 feet in height.

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54	ADM94-16	ICC A117.1	Major Change	Increase	Accessibility. Accessibility and Usable Buildings and Facilities Standard which increases the turning circle from 60" to 65" and the clear floor space from 32"x48" to 32"x52". The increase areas have a major impact on other requirements such as T-turn, and knee and toe clearance. Final version applies to all new construction except buildings and Type B dwelling units.
55	G144-16		Major Change	Increase	Allowable Height and Area. The proposal would limit the building height and area doing away with the incentives in the code to encourage the use of sprinklers.
56	G162-16	IBC 510.2	Major Change	Increase	Lot Line Construction Separation. Require that Type V (wood frame) buildings with combustible structural elements above the building horizontal separation be separated from lot lines and buildings of the same lot by not less than 50 feet.
57	G171-16	IBC 602.1 and others	Major Change	Increase	Fire Resistance Rating. Approval would require a 1-hour rating of all exterior walls of buildings with Type IIB, IIIB, and VB construction in Seismic Design Categories C and D.
58	G209-16	IBC 202 and others	Appendix	Appendix	Radon Mitigation. Proposal places radon mitigation provisions based on the provisions in the IRC in the appendix of the IBC. Although the proponent had data showing that radon is a potential problem they have no data supporting the need for radon mitigation requirements in any building other than in the basement of single family occupancies in high radon areas.
59	G228-16	IBC 3304.2 new	Major Change	Increase	Fire Department Access. Require combustible buildings four or more stories in height to have a vehicle access plan for firefighters submitted and approved by the fire department prior to construction. Requires access to all sides of the building which could not be done if the building is next to another building or other items such as a lake.
60	G232-16	IBC 3314 new	Major Change	Increase	Safeguards During Construction. Approval would require fire watch during non-working hours. Provisions for safeguards during construction are already in the code.

61	G236-16	N101 new	Appendix	Appendix	Building Resiliency. Place in the Appendix provisions for enhanced building resilience which limit the height and area of buildings in disasters associated with fires, flooding, high winds and earthquakes.
62	M46-16	M 505.2	Change	Increase	Make Up Air Dampers. Require gravity of barometric dampers on residential exhaust hood systems.
63	F37-16	IFC 503.1.2	Major Change	Increase	Fire Department Access Roads. Require 2 fire department access roads for buildings of Type III, IV and V construction that are 4 or more stories in height.
64	F201-16	IFC 907.2.9.1 IBC 907.2.9.1	Change	Increase	Manual Fire Alarms. Lower the requirement for manual fire alarms from 3 stories to 2 stories.
65	F333-16	IBC 3310.1	Major Change	Increase	Access Roads During Construction. Adds language for the protection, use and design of access roads during all phases of construction.
66	F336-16	IBC 23314.2 new	Major Change	Increase	Sprinkler Installation During Construction. Adds language that would prevent construction in combustible buildings not to exceed 40 feet until the sprinkler system is installed and operational in the stories below.
67	CE105-16	C 402.5	Major Change	Increase	Whole Building Air-Leakage Testing. Require whole building air leakage testing of commercial and multifamily buildings based on building size, climate zone, building use and the floor area of the conditioned space.
68	CE107-16	C 402.1	Change	Increase	Air-Barrier Commissioning. Adds additional requirements for commissioning the air-barrier that is duplicative to the inspection conducted by the code official.
69	CE144-16	C 403.2.6.3	Change	Increase	Mechanical Ventilation. Require mechanical ventilation of all dwelling units.
70	CE222-16	C 405.8	Major Change	Increase	Benchmarking. Require energy monitoring to measure, record and report energy consumption of buildings with a gross conditioned floor area over 25,000 square feet and to report energy consumption in numerous end-use categories.
71	CE229-16	C 406.1 new	Change	Increase	Car Charging. Require conduits for future installation of automobile charging stations.
72	CE232-16	C 406.1	Major Change	Increase	Building Energy Efficiency. Increase the required efficiency options from one to two.
73	CE272-16	New Sections	Major Change	Increase	In Energy Code Move All R-2 (Apartments) Requirements to One Section. The proposal combines the requirements for R-2 occupancies into one section to supposedly eliminate confusion without any increase in stringency. In fact it did just the opposite by taking the most stringent provisions for buildings less than 3-stories in height and those more than 4-stories in height.