M E E T I N G N O T I C E

BUILDING BOARD OF REVIEW

WASHINGTON, ILLINOIS

MEETING
Thursday, March 4, 2021
8:00 a.m.
Washington Fire Department
Training Room
200 N Wilmor Rd

AGENDA

1. CALL TO ORDER

2. APPROVAL OF MINUTES – April 3, 2019 meeting

3. NEW BUSINESS
   A. Nomination and election of Chairperson
   B. Set annual meeting date – first Thursday in February
   C. Update NFPA 101 Life Safety Code to the current edition
   D. Update the International Residential Code for One- and Two-Family Dwellings, International Building Code, and International Mechanical Code from the 2012 versions to the 2018 versions

4. OTHER DISCUSSION

5. PUBLIC COMMENTS

6. ADJOURNMENT

Important note: ***a quorum is required to conduct a meeting.***
If you cannot attend, please contact Becky Holmes at 444-1122 or bholmes@ci.washington.il.us.

BUILDING BOARD OF REVIEW
WASHINGTON, ILLINOIS

Minutes
Wednesday, April 3, 2019
7:30 a.m.
Washington City Hall
301 Walnut St.

Present	Tom Reeder, Dave Roth, Steve Wetterauer
Absent	Todd Light, Jim Nofsinger
Also Present	Tom Brecklin, Washington Fire Department Captain; Becky Holmes, Building & Zoning Supervisor; Jon Oliphant, Planning & Development Director; Roger Traver, Washington Fire Department Chief

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Call to Order With a quorum present, the meeting was called to order at 7:30 a.m.

Election of a Chairperson A motion was made and seconded to nominate Mr. Reeder for the position of Chairman. No other nominations were offered. Motion carried unanimously.

Approval of Minutes A motion was made and seconded to approve the minutes from the November 15, 2017, meeting as presented. Motion carried unanimously.

New Business

A. Set Annual Meeting Date

It was recommended to establish an annual meeting date, though meetings could be held more frequently if the need arises. The first Wednesday in April was acknowledged as a good date.

Mr. Reeder motioned to recommend the first Wednesday in April as the meeting date. Mr. Wetterauer seconded the motion.
The vote was:
Ayes: 3 Mr. Reeder, Mr. Roth, Mr. Wetterauer
Nays: 0
Motion carried unanimously.

B. Update NFPA 101 Life Safety Code to the 2012 Edition

Life Safety Inspector, Tony Griffin, has recommended this to continue ensuring that Washington's codes are updated and will protect the occupants of buildings in the city. The City has currently adopted the 2006 version and many cities in the area utilize the 2012 edition. The committee felt that adoption of this code and the consistency it would provide with other nearby cities would be beneficial.

Mr. Wetterauer motioned to recommend adopting the 2012 Life Safety Code. Mr. Reeder seconded the motion. The vote was:
Ayes: 3 Mr. Reeder, Mr. Roth, Mr. Wetterauer
Nays: 0
Motion carried unanimously.

C. Discuss Smoke Detector Requirements in Commercial

The Washington Fire Department has been more involved in non-residential inspections the last few years. During an inspection recently of a building near the Square, it was noted that smoke detectors were not installed. This was not required per the International Building Code because a sprinkler system was installed. But the owner was urged to install detectors as a low-cost safety measure and it is anticipated that they will be installed soon. Detectors are required in all residential buildings. The committee felt that they should be required in all buildings regardless of the use. A question was also raised about whether fire alarms should be required. It was decided that this should not be a requirement due to the cost and monitoring necessary. The committee felt that Roger, Tom, and Tony should get together to help determine the number and location of the detectors before reconvening for another BBR meeting to get a recommendation to send to the City Council.

Mr. Reeder motioned to recommend approval following a separate meeting to determine the proper number/location of the detectors. Mr. Roth seconded the motion.
The vote was:
Ayes: 3 Mr. Reeder, Mr. Roth, Mr. Wetterauer
Nays: 0
Motion carried unanimously.

Other Discussion Staff mentioned that while most cities in the region currently follow the 2012 ICC codes, some cities are considering adopting the 2015 or 2018 codes while continuing to exempt the residential sprinkler requirements. There is a desire to consider adoption of these codes on a regional basis to ensure there is consistency for the builders to be aware of from one entity to another. Further discussion will take place to see if this is something that may be adopted on a wider scale.

Adjournment With no further business to discuss, upon a motion duly made and seconded, the meeting adjourned at 8:00 a.m.

Respectfully Submitted,

Jon R. Oliphant, AICP
Planning & Development Director

International Building Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
Part 1 Administration (Chapter 1)					
101.2 Exempt Residential Accessory Structures	M		Limiting height of an IRC accessory structure increased to 3 stories above grade plane		
111.1 Change of Use or Occupancy	M		C of O required for change in building's use		
Part 1 Definitions (Chapter 2)					
202 Definition of Greenhouse	A			Structures specifically for growing plants	
202 Definition of Horizontal Exit	M		Definition focused on compartmentalization		
202 Definition of Platform	C		Sliding curtains now permitted		
202 Definition of Private Garage	A		Limited to tenants of the building		
202 Definition of Repair Garage	A			Copied IFC definition to IBC for consistency	
202 Definition of Sleeping Unit	C			Revised to mean entire suite	
202 Definition of Treated Wood	C		Expanded definition beyond pressure treated		
Removal of Definition References	D			Removal of definitions in each chapter	
Part 2 Building Planning (Chapters 3-6)					
302.1 Classification of Outdoor Areas	C			Rooftops shall be classified based on the occupancy it resembles	
303.4 Assembly Use of Greenhouse	C			Conservation and Exhibition of plants will be an A-3 Occupancy	

A = Addition **C** = Clarification **D** = Deletion **M** = Modification

International Building Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
304.1 Food Processing and Commercial Kitchens	M		Food establishments without dining facilities are considered Business Occupancies		
304.1 Training and Skill Development Facilities	C		Age of occupants no longer a factor		
306.2 Food Processing Facilities and Commercial Kitchens	M		F-1 Occupancy for sizes greater than 2500 sq ft		
308.3 Group I-1 Occupancy Classification	M		Conditions for custodial care w/o assistance, and limited assistance		
308.4 Group I-2 Occupancy Classification	M		Provides two categories for I-2 Occupancy (short term and long term)		
309.1 Mercantile Use of Greenhouse	C			Primary use is for public sales, M occupancy is appropriate	
310.3, 310.4 Classification of Congregate Living Facilities	M			Occupant load changes to R-3 occupancies	
310.4.2 Owner-Occupied Lodging Houses	M			IRC permitted for 10 or fewer total occupants	
310.5 Group R-3 Lodging Houses	M		IRC permitted for lodging homes with 5 or fewer guest rooms		
310.6 Group R-4 Occupancy Classification	M		Expanded to included residents requiring limited assistance		
311.1.1 Classification of Accessory Storage Spaces	M		Storage less than 100sq ft shall not have a separate occupancy	Removes 100sq ft requirement	
311.2 Classification of Self-Service Storage Facilities	C			Now classified as S-1 moderate hazard	

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International Building Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
312.1 Classification of Communication Equipment Structures	M			Structures less than 1500sq ft shall be U Occupancy	
312.1.1 Classification of Agricultural Greenhouses	C			Greenhouses not classified as other shall be U Occupancy	
403.1 Applicability of High-Rise Provisions	C		Exempts compliance with Group H-1, H-2, H-3		
403.2.1.1 Types of Construction in High-Rise Buildings	M			No longer permits reduction in hour ratings for H-2, H-3, H-5 Occupancies	
404.5 Atrium Smoke Control in Group I Occupancies	M		Smoke control system required in I-2, I-3 (condition 2) two story atrium		
404.6 Enclosure of Atriums	M			Adds an exception for spaces adjacent to an atrium that does not require smoke control	
404.9, 404.10 Egress Travel Through Atrium	C		Addresses three distinct conditions of travel		
406.1 Motor Vehicle-Related Occupancies	C			Reorganized for clarity of specific requirements	
406.3 Regulation of Private Garages	C			Private garages may alternatively comply with public garage provisions	
406.3.1 Private Garage Floor-Area Limit	M		Limits 1000sq ft per 1 hour rated area		
406.3.2 Private Parking Garage Ceiling Height	C		7’ minimum		
406.6.2 Ventilation of Enclosed Parking Garages	C			Refers to Chapters 4 and 5 of IMC	
407.2.5 Group I-2 Shared Living Spaces	A		Conditionally allows group spaces open to corridors		

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International Building Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
407.2.6 Group I-2 Cooking Facilities	A		Conditionally allows domestic cooking areas open to corridors		
407.5 Maximum Size of Group I-2 Smoke Compartments	M		Increase size of compartment to 40,000sq ft	Size increase only permit in single patient occupancies, or no sleeping rooms	
407.5.4 Required Egress from Smoke Compartments	M			Smoke compartments without an exit shall be provided with access to not less than two adjacent compartments	
410.3.5 Horizontal Sliding Doors at Stage Proscenium Opening	A		Provides alternation protection by rated doors		
412.7 Travel Distance in Aircraft Manufacturing Facilities	M		Permitted Exit Access travel distance increased		
420.7 Corridor Protection in Assisted Living Units	M			Conditionally allows living, meeting, and therapeutic areas open to corridors	
420.8 Group I-1 Cooking Facilities	A			Conditionally allows domestic cooking areas open to corridors	
420.10 Dormitory Cooking Facilities	A			Installation and use of cooking appliances will be regulated in common areas and sleeping rooms	
422.6 Electrical Systems in Ambulatory Care Facilities	A			Add reference to IBC Chapter 27 and NFPA 99	
423.2 Storm Shelters Serving Emergency Facilities	A		Requires a storm shelter		
423.4 Storm Shelters Serving Group E Occupancies	A		Requires a storm shelter capable of housing total occupant load		

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International Building Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
424.1 Children's Play Structures	M			Revised the scope of structures that can be regulated	
427 Medical Gas Systems	A			Copies and adds IFC provisions into IBC	
428 Higher Education Laboratories	A			Labs with hazardous materials can be considered Group B when in compliance with new provisions	
503 General Building Height and Area Limitation	C		Chapter revised for ease of use		
503.1, 706.1 Scope of Fire Wall Use	M			Limits fire walls to determining permissible construction type	
503.1.4 Allowable Height and Area of Occupied Roofs	A			Added conditions for roof occupancy	
Tables 504.3, 504.4 Building Height and Number of Stories	C		Reformatted for ease of use		
505.2.1.1 Mezzanine and Equipment Platform Area Limitations	C			Aggregate area cannot exceed 2/3 of floor area	
505.2.3, Exception 2 Mezzanine Openness	M		Removed direct exit access provision		
Table 506.2 Building Area	C		Reformatted table to include sprinkler increases		
Table 506.2, Note i	M			Increases allowable area for Group U Greenhouses of VB construction	
507.1 Basements in Unlimited Area Buildings	C		Basements not more than one story below grade shall be permitted		

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International Building Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
507.4 Sprinklers in Unlimited Area Group A-4	C			Omission permitted only in sport activity area	
507.9 Group H-5 in Unlimited Area Buildings	A		Now permitted with special provisions		
508.3.1.2 Group I-2, Condition 2 Nonseparated Occupancies	M			Increases requirements for path of egress where condition exists	
508.4.1, Table 508.4 Separated Occupancies vs Fire Area Separations	C			Distinction between occupancy separation by fire walls, and fire walls used to create fire areas so as not to require sprinkler	
Table 509 Fire Protection from Incidental Uses	M/C		More detail for support spaces within healthcare or ambulatory care	Add reference to IFC and NFPA	
510.2 Horizontal Building Separation	M/C		Remove one story limitation	Separation to be maintained through vertical offsets	
Table 601, Footnote b Fire Protection of Structural Roof Members	M			Protection not required for roof members 20’ above floor	
Table 601, Footnote d One-Hour Substitution	D		Removes footnote allowing sprinkler system substitution		
Table 602, Footnote I Group R-3 Fire Separation Distance	C			5’ or greater requires no rating in IIB or VB	
602.3, 602.4.1 FRT Wood Sheathing in Exterior Wall Assemblies	C			Permitted where assemblies do not exceed a 2-hour rating	
602.4 Type IV Member Size Equivalencies	A		Specifies dimensions for heavy timber		

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International Building Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
602.4.2 Cross-Laminated Timber in Exterior Walls	A		Allows CLT use in exterior walls requiring a rating of 2hour or less		
603.1, Item 26 Wall Construction of Freezers and Coolers	A		Conditionally permits wood construction		
Part 3 Fire Protection (Chapters 7-9)					
704.2, 704.4.1	M			Individual projection of columns not required in light frame construction between bottom and top plates	
704.4 Protection of Secondary Members	C		May be protected by ceiling membrane of appropriate rating		
705.2 Projection at Exterior Walls	M		Cornices, eaves, overhangs shall now conform		
Table 705.2	M			Decreased required clearances from projection	
705.2.3, 705.2.3.1 Combustible Projections	M/C		Removed two thresholds requiring compliance	Relocated Section 1406	
705.3 Buildings on the Same Lot	M		Openings permitted for separate S-2 and R-2 structures on same lot		
705.6 Structural Element Bracing of Exterior Walls	M		No longer required to be regulated for fire resistance		
705.8.1 Measurement of Fire Separation Distance for Opening Protection	C			Distance determined individually by story	
705.8.5 Vertical Separation of Openings	C		Walls separating vertical openings shall be rated on both sides		

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International Building Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
706.1.1 Party Walls Not Constructed as Fire Walls	M			Permitted provided building on either side complies with height and area requirements	
706.2 Structural Stability of Fire Walls	M		Reference to NFPA standard has been expanded	Permits sheathing ¾" or less to be continuous through wall assembly	
708.4 Continuity of Fire Partitions	C			Continuity requirements have been reformatted for clarity	
708.4.2 Fire blocking and Draft stopping at Fire Partitions	C			Requirements have been consolidated	
709.4 Continuity of Smoke Barriers	C		Clarity added for barriers of different purposes		
711, 712 Horizontal Assemblies and Vertical Openings	M		Reorganized into separate sections		
713.8.1 Membrane Penetrations of Shaft Enclosures	M			Now permitted on the outside of shaft enclosure	
714.4.2 Membrane Penetrations	M		Wood framed top plates may interrupt membrane		
716.2.6.5 Delayed-Action Self-Closing Doors	A			Now permitted where doors are not required to be automatically closing	
717.1.1 Ducts Transitioning between Shafts	C		Ducts need only be protected by dampers when transitioning		
717.3, 717.5 Corridor Dampers	C		Required on ceilings of rated corridors		
803.1.1, 803.1.2 Interior Wall and Ceiling Finish Testing	C			Reorganized to enhance application and enforcement	

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International Building Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
803.3 Interior Finish Requirements for Heavy Timber Construction	M			Must comply when used in interior exit stairways/passageways	
803.11, 803.12 Flame Spread Testing of Laminates and Veneers	A			Specific provisions now provided	
901.6.2 Integrated Fire Protection System Testing	A			Criteria added referring to NFPA 4	
902 Fire Pump and Fire Sprinkler Riser Rooms	A			Prescriptive requirements added to regulate design	
903.2.1 Sprinklers Required in Group A Occupancies	C			Required on all floors serving egress requirements for Group A	
903.2.1.6 Sprinkler Systems – Assembly Occupancies	A		Required for rooftops with greater than 100 occupants, 300 for all other occupancies		
903.2.1.7 Multiple Fire Areas	A		Group A occupant loads calculated together		
903.2.3 Sprinklers in Group E Occupancies	M			Criteria added for occupant load and location	
903.2.8 Sprinkler Systems – Group R Occupancies	M		Dependent on capabilities of the occupants		
903.3.1.1.2 Exempt Locations for NFPA 13 Sprinklers	M		Bathrooms under 55sqft in R other than R-4	Includes all R occupancies	
903.3.1.2.1 Sprinkler Protection at Balconies and Decks	C			Protection to be extended	
903.3.1.2.2 Open-Ended Corridors	C		Required where NFPA 13R system		
903.3.1.2.3 Protection of Attics in Group R Occupancies	A			New section for NFPA 13R sprinkler system	
903.3.8 Limited Area Sprinkler Systems	M		Limited to 6 or fewer heads in a single fire area		

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International Building Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
904.12 Commercial Cooking Operations	M			Must comply with NFPA 96 or NFPA 750	
904.13 Domestic Cooking Systems in Group I-2 Condition 1	A/M		Hood requires automatic fire-extinguishing system	Required in College dormitories classified as R-2	
904.14 Aerosol Fire Extinguishing Systems	M			Now refers to IBC, NFPA 2010, and listed instructions	
905.3.1 Class III Standpipes	M			Protection required in buildings have four stories above or below grade plane	
905.4 Class I Standpipe Connection Locations	M			Required on main floor landing with exception	
907.2.1 Fire Alarms in Group A Occupancies	M			Required with an occupant load greater than 100 and located above or below level of exit discharge	
907.2.3 Fire Alarms – Group E Occupancies	M		Increased to occupant load of 50 or more		
907.2.9.3 Alarm Systems – Group R-2 College and University Buildings	M		Scope applies to buildings operated by University		
907.2.10 Group R-4 Fire Alarm Systems	D			Manual alarm and automatic smoke detection no longer required	
907.2.11.3, 907.2.11.4 Smoke Alarms Near Cooking Appliances and Bathrooms	M		Addresses minimum distances		
909.21.1 Elevator Hoistway Pressurization	M		Alternatives to general pressurization outlined		
910 Smoke and Heat Removal	M		Mechanical removal permitted and format revised		
915 Carbon Monoxide Detections	M		Relocated, reformatted, excludes Group I-3, adds Group E		

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International Building Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
Part 4 Means of Egress (Chapter 10)					
Chapter 10 Means of Egress	M		Provisions for number of means of egress and arrangement have been reformatted and relocated		
1004.1.1 Cumulative Occupant Loads	M		Egress capacity will be determined by combined occupant load for interconnected spaces		
Table 1004.1.2 Occupant Load Factors	M		Mercantile now a single load factor		
Table 1004.5, 1004.8 Occupant Load Calculation in Business Use Areas	M			Now 150 gross or concentrated per 1004.8	
1006, 1007 Numbers of Exits and Exit Access Doorways	M		Consolidated egress requirements for rooms and stories		
1006.2.1, Table 1006.2.1 Group R Spaces with One Exit or Exit Access Doorway	C			Cumulant occupant load per 1004.8	
1006.3, 1006.3.1 Egress through Adjacent Stories	C			Where stairways serve multiple stories, occupant load of each individual story shall be used	
1007.1 Exit and Exit Access Doorway Configuration	M		Exit separation distance specified, and language for adequate separation for three or more means of egress		
1008.2.3 Illumination of the Exit Discharge	C			Required for entire path to public way or safe dispersal area	
1008.3.5, 1008.2.2 Emergency Illumination in Group I-2	M			Maintain .2 footcandles in multi lamp units	

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International Building Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
1009.7.2 Protection of Exterior Areas of Assisted Rescue	M			Rated assembly not required where building is fully sprinklered	
1009.8 Two-Way Communication Systems	C		May serve multiple elevators, not required at service, freight, or private elevators		
1010.1.1 Size of Doors	C			Provisions addressing width and height have been reformatted	
1010.1.4.4 Locking Arrangements in Educational Occupancies	A			Guidance for security measures in educational facilities	
1010.1.9 Door Operations – Locking Systems	M		More consistent terminology and clarification on application		
1010.1.9.8 Use of Delayed Egress Locking Systems in Group E Classrooms	M			Expanded to include Group E and secondary exits for courtrooms	
1010.1.9.12 Locks on Stairway Doors	M			Permitted to be locked from ingress side of a building of any height not considered a high rise	
1010.3.2 Security Access Turnstiles	A			New conditions for turnstiles that inhibit travel in direction of egress	
1011.15, 1011.16 Ladders	A		Locations where ladders can be used, comply with provisions of IMC		
1013.2 Floor Level Exit Sign Location	M			Bottom of sign may now be mounted up to 18” above floor level	

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International Building Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
1014.8 Handrail Projections	C		Intermediate handrails are not considered to reduce egress width		
1015.6, 1015.7 Fall Arrest for Rooftop Equipment	M			Exception now only references ANSI/ASSE standard	
1016.2 Egress Through Intervening Spaces	M		Egress through elevator lobby is permitted provided at least one is available without passing through		
1017.2.2 Travel Distance Increase for Groups F-1 and S-1	M		Conditional increases		
1017.3, 202 Measurement of Egress Travel	C			Must apply to each room or space on every story	
1018.3 Aisles in Groups B and M	M		Consistent with corridor width and no longer conditional with occupant load		
1020.2 Corridor Width and Capacity	C		Exception for areas not serving stretcher traffic		
1023.3.1 Stairway Extension	M/M		Fire door no longer required if passageway has no other openings	Separation between stairway and passageway extension not required where both are pressurized	
1023.5, 1024.6 Exit Stairway and Exit Passageway Penetrations	M			Security and two-way communication systems are permitted	
1025.1 Luminous Egress Path Marking in Group I Occupancies	M			No longer required in high-rise Groups I-2, I-3, or I-4	
1026.4, 1026.4.1 Refuge Areas for Horizontal Exits	M				

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International Building Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
1029.6, 1029.6.3, 202 Open-Air Assembly Seating	C			Seating methods clarified with introduction of defined open air assembly	
1029.13.2.2.1 Stepped Aisle Construction Tolerances	M		Risers must be between 4" and 8"		
1030.1 Required Emergency Escape and Rescue Openings	C			Not required in R-2 where two means of exit access, and are required in R-4 occupancies	
Chapter 11 - Accessibility					
Superseded by 2018 State of Illinois Accessibility Code					
Chapter 12 – Interior Environment					
1206.2, 1206.3 Engineering Analysis of Sound Transmission	M			Allows for performance based approach to meet sound transmission rating	
Chapter 13 – Energy Efficiency					
No changes addressed					
Chapter 14 – Exterior Walls					
Table 1404.2 Weather Covering Minimum Thickness	M			Minimum required thickness of masonry and stone veneer has been updated	
1404.18 Polypropylene Siding	M			Now specifically permitted for use on exterior of any construction type when provisions allow	
1405.3 Vapor Retarders	M		Required types and locations for each class of vapor retarder revised		

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International Building Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
Chapter 15 – Roof Assemblies and Rooftop Structures					
1504.3.3 Metal Roof Shingles	A			Now addressed separately from other metal panel roof systems	
1507.1 Underlayment	C			Underlayment and ice barrier requirements have been relocated to one new section	
1507.18 Building Integrated Photovoltaic Panels	A			Integrated panels now have specific requirements in IBC	
Chapter 16 – Structural Design					
1602.1 Definitions and Notations	M		References classification standards for flexible and rigid diaphragms		
1603 Construction Documents	M		Two additional items related to snow load required on documents		
1603.1 Construction Documents				Requirements for environmental and special loads updated for rain, snow and wind	
1603.1.7 Flood Design Data	C		Terms have been replaced in several chapters		
1603.1.8 Special Loads	A		Dead load of any rooftop PV system must be identified		
1604.3 Serviceability	M		Deflection limits have changed for interior partitions, wood members and wind loads		

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International Building Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
1604.3.7 Deflection of Glass Framing	A			Limits to framing that supports glazing added	
1604.5 Risk Category	C		Revised to clarify where standards refer to ASCE		
1604.5.1 Multiple Occupancies	A			Includes an exception for buildings with a storm shelter	
1604.10 Storm Shelters	A			Loads shall be determined in accordance with ICC500	
Table 1607.1 Deck Live Load	M			Now consistent with ASCE 7	
Table 1607.1 Live Load Reduction	M			Table clarifies where heavy live loads may be reduced	
1607.5 Partition Loads	M		Loads will be considered unless floor is designed for 80psf or greater live load		
1607.9 Impact Loads for Façade Access Equipment	A		Establishes provisions for elements supporting equipment and anchorages		
1607.10.2 Alternative Uniform Live Load Reduction	M		Method has been corrected to be consistent with original intent		
1607.12 Roof Loads	A		Term vegetative roof has been defined and reference added		
1607.12.5 Photovoltaic Panel Systems	A		Requirements for roof structures supporting panels and modules have been added		

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International Building Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
1607.15.2 Minimum Fire Load	A			Establishes minimum lateral load for fire walls to resist at 5psf	
1609 Wind Loads	M			Updates wind speed maps	
1609.1.1 Determination of Wind Loads	M		Reference to new testing standard ASCE 49		
1613 Earthquake Loads	M			Updates site coefficients	
1613.2.1 Seismic Maps	M			Updated to match 2015 NEHRP provisions and 2016 ASCE 7 standards	
1613.3.1 Mapped Acceleration Parameters	A		Includes USGS hazards for US Territories		
1613.5 Amendments to ASCE 7	A		Clarifies diaphragm anchorage requirements		
1613.6 Ballasted Photovoltaic Panel Systems	A		Seismic requirements added		
1615, 1604.5 Tsunami Loads	A			Addresses design of critical infrastructure and essential facilities	
Chapter 17 -Special Inspections and Tests					
1704.5 Submittals to the Building Official	A		Requirements for reports related to special inspections		
1704.6 Structural Observations	M			Requires structural observation of high-rise or Risk Category IV	
1705.2 Steel Construction	M		Coordinate with new terminology in Chapter 22, AISC 360 and SDI		
1705.2.3 Open Web Steel Joists and Joist Girders	A		SI required during installation		
Table 1705.3 Required Special Inspections of Concrete Construction	M		Requirements changed for cast in place anchors		

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International Building Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
1705.5.2 Metal-Plate-Connected Wood Trusses	M			Periodic inspection of required bracing	
1705.11 Special Inspection for Wind Resistance	C		Clarified requirements of wind resisting components		
1705.12 Special Inspection for Seismic Resistance	A		Periodic testing of cold-formed steel special bolted moment frames now mandated		
1705.12.1, 1705.13.1 Seismic Force-Resisting Systems	C			Exceptions for inspections clarified for moderate and high seismic reasons	
1705.12.6 Fire Sprinkler Clearance	A			Provision for special inspection of sprinkler components to MEP system	
1708.3.2 Static Load Testing	M		Revised to clarify intent and method of testing has been specified		
1709.5 Exterior Window and Door Assemblies	M		Design pressure ratings are to be done on an allowable stress basis		
1711 Material and Test Standards	D		Requirements for testing joist hangers has been removed		
Chapter 18 Soils and Foundations					
1803.5 Investigated Conditions	M		Requirements have been updated to align with current geotechnical practices		
1804.1 Excavation Near Foundations	A		Provides basic requirements for underpinning		

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International Building Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
1804.4 Site Grading	M			Impervious surfaces can slope less than 2% near doors to meet egress requirements	
1807.2 Retaining Walls	M			Requirement for consideration of a keyway has been deleted from this section	
1808.3 Design Surcharge Loads	A		Requirement pertaining to surcharge loads added		
1810.2.5 Group Effects	C		Clarifies effect of grouped deep foundations elements		
1810.3 Design and Detailing	A		Provisions addressing structural steel sheet piles have been added		
1810.3.8.3 Precast Prestressed Piles	M			Equations updated for addressing piles	
Chapter 19 Concrete					
1901.2 Seismic Loads for Precast Concrete Diaphragms	M			Requires use of ASCE 7 Section 14.2.4 in high seismic regions	
1901.3 Anchoring to Concrete	M		Shall be in accordance with ACI 318 and applies to cast in place and post-installed expansion anchors		
1901.4 Composite Structural Steel and Concrete Structures	M		Refers to Section 2206		
1904 Durability Requirements	M		Deleted previous language and now refers to ACI 318		

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International Building Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
1905.1.3 Modifications to ACI 318, Section 18.5	M		Deleted and refer to ACI 318		
1905.1.8 Modifications to ACI 318, Section 17.2.3			Changed to be consistent with ACI 318		
Chapter 20 Aluminum					
No changes addressed					
Chapter 21 Masonry					
2101.2 Masonry Design Methods	M		References have been updated		
2103 Masonry Construction Materials	M		References have been updated		
2104 Masonry Construction	M		References have been updated		
2105 Quality Assurance	M		References have been updated		
2111, 2113 Masonry Fireplaces and Chimneys	C		Definitions relocated, reinforcement and anchorage requirements clarified		
Chapter 22 Steel					
2207.1 SJI Standard	M			2015 SJI is now referenced for steel joists	
2209.2 Cantilevered Steel Storage Racks	A			Reference to rack standards added to specify when code is applicable	
2210 Cold-Formed Steel	M		New SDI Standard referenced for composite slabs and steel decks		
2211 Cold-Formed Steel Light-Frame Construction	M/M		New AISI Standard 220 now referenced	2015 AISI Standards are now referenced	

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International Building Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
Chapter 23 Wood					
2303.1.4 Structural Glued Cross-Laminated Timber	A		New definition for CLT and references		
2303.1.13 Engineered Wood Rim Board	A		New definition for engineered wood rim board and references		
2303.2.2 Fire-Retardant-Treated Wood	M			Types of allowable treatment clarified	
2303.6 Nails and Staples	M			Required to conform to ASTM F 1667	
2304.6 Exterior Wall Sheathing	M		Establishes structural performance standards and wind resistance		
Table 2304.9.3.2 Mechanically Laminated Decking	A			Alternative fastening schedule is provided	
Table 2304.10.1 Ring Shank Nails	M			Aligns with IRC requirements for roof sheathing	
2304.10.5 Fasteners in Treated Wood	M			Required to be stainless steel	
2304.10.6 Load Path	M		New minimum thickness for steel straps used to splice framing members		
2304.11 Heavy-Timber Construction	M			Section has been reorganized	
2304.12 Protection Against Decay and Termites	M		Specifies where waterborne preservatives are required		
2304.12.2.5, 2304.13.2.6 Supporting Members for Permeable Floors and Roofs	M			Impervious barrier must provide positive drainage	
2308 Conventional Light-Frame Construction	M		Reformatted and reorganized		

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International Building Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
2308.2.5 Allowable Roof Span	M		Provisions have been clarified as part of modifications to 2308		
Table 2308.4.1.1(1) Header and Girder Spans- Exterior Walls	M			Now permits No.2 Southern Pine	
Table 2308.4.1.1(2) Header and Girder Spans- Interior Walls	M			Now permits No.2 Southern Pine, additional building widths added to table	
2308.5.5.1 Openings in Exterior Bearing Walls	M			Single member headers are permitted in prescriptive wood framing	
2308.7 Roof and Ceiling Framing	M		Joist and rafter span tables have been imported from IRC		
2309 Wood Frame Construction Manual	A		Section has been added to reference American Wood Council construction manual		
Chapter 24 Glass and Glazing					
2406.4.7 Safety Glazing Adjacent to Bottom Stair Landing	M		Required for glazing located less than 60" from bottom of landing		
2407.1 Structural Glass Baluster Panels	M			Clarifies requirements of components	
Chapter 25 Gypsum Board and Plaster					
Gypsum Panel Products	A		Definitions of Gypsum board has been revised and references added		
2510.6 Water-Resistive Barrier	M			Exceptions for Climate Zones 1A, 2A, and 3A added	
Chapter 26 Plastic					
2603.13 Cladding Attachment over Foam Sheathing to Wood Framing	A			Requirements are now consistent with IRC	

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International Building Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
2612 Plastic Composites	A		New definitions and standards address use as exterior deck components		
Chapter 27 Electrical					
No changes addressed					
Chapter 28 Mechanical Systems					
No changes addressed					
Chapter 29 Plumbing Systems					
2902.3 Public Toilet Facilities	M		Quick service tenant spaces are no longer required to provide public use facilities		
Chapter 30 Elevators and Conveying Systems					
3001.2 Emergency Elevator Communication Systems	A			Requires communication system for the deaf, hard of hearing and speech impaired	
3004 Elevator Hoistway Venting	D		Section deleted as venting to exterior is no longer required		
3006 Elevator Lobbies	M		Requirements have been relocated from Section 713.14.1		
3006.2.1 Corridors Adjacent to Elevator Hoistway Openings	C			Door opening must be protected in accordance with IBC 3006.3 when corridor is rated	
3007.1 Extent of Fire Service Access Elevator Travel	M			Only required at and above the lowest level of Fire Department access	

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International Building Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
3008.1.1 Required Number of Occupant Evacuation Elevators	M			A reduction in minimum number of evacuation elevators based on performance	
Chapter 31 Special Construction					
3113 Relocatable Buildings	A			Definitions added and means of acceptance for relocatable modular buildings	
Chapter 32 Encroachments into the Public Right-of-Way					
No changes addressed					
Chapter 33 Safeguards during Construction					
3310.1 Stairways in buildings under construction	M			One stairway must be provided once building has reached a height of 40' above fire department vehicle access	
Fire Watch during construction	A			Provision added for Fire Code Official to require a Fire Watch once a project exceeds 40' in height	
Chapter 34 Existing Structures					
Existing Structures	D		Chapter has been deleted and will solely regulated buy Existing Building Code		

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International Residential Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
Chapter 1 – Administration					
R101.2, R 202 Scope – Accessory Structures	M/M		Maximum height for accessory structures has been increased to three stories above grade	All instances where the IBC permits construction under the IRC are now listed in exceptions to the IRC scope	
R104.11 Alternative Materials, Design, and Methods of Construction and Equipment	A/M		When alternative methods aren't approved, the reason must be stated in writing	Requires application by owner or authorized agent showing equivalency	
R105.1, R110.1, R202 Change of Occupancy	C			Will be required when occupancy involves a change in the application of this code (i.e. single family to Bed & Breakfast)	
R105.3.1.1 Existing Buildings in Flood Hazard Areas	M		Building official will determine if scope of work is enough to require entire building to be compliant, rather than Board of Appeals		
R106.1.4 Information for Construction in Flood Hazard Areas	M				
Chapter 2 – Definitions					
R202 Definition of Access	C			*Access* requires removal of obstruction, *ready access* does not	
R202 Definition of Crawl Space	A			An underfloor space that is not a basement	
R202 Definition of Carbon Monoxide Alarm	A			Differentiates between a CO alarm and a CO detector	
R202 Definition of Fenestration	C			Clarifies difference between vertical fenestration and skylights/sloped glazing	

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International Residential Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
R202 Definition of Solar Energy System	C			Clarifies differences between systems utilized for electrical energy or thermal energy	
Chapter 3 – Building Planning					
Table R301.2(1) Climatic and Geographic Design Criteria	M/M		Contains new section to include special wind regions or wind borne debris zones	Jurisdictions will include variables for Manual J assessments with other design criteria	
R301.2 Wind Design Criteria	M		Ultimate design wind speed value replaces data for 3-sec gusts		
R301.2 Wind Speed Maps	M		Now reflects ultimate design wind speed		
Table R301.2(2) Component and Cladding Loads	M		Now reflects ultimate design wind speed		
R301.2.1.1.1 Sunrooms	A		Sunrooms shall comply with AAMA/NPEA/NSA 2100-12		
R301.2.1.2 Protection of Openings in Wind Borne Debris Regions	M		Requirements for glazed openings references ASTM E 1996 standard		
R301.2.1.4 Wind Exposure Category	M		Category A has been removed, Category D applies to open water, flats and ice fields		
Table R301.2.1.5.1 Modifications for Topographic Wind Effects	M		Updated for the change to ultimate wind speed		
R301.2.2.1 Seismic Design Category	M			Allows lower seismic category based on soil type	
R301.2.2.6 Irregular Buildings	M			Section has been rearranged for ease of use	

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International Residential Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
R301.2.4 Floodplain Construction	M		Buildings located in multiple flood hazard areas must comply with provisions for most restrictive		
R301.3 Story Height	M		Story height in masonry may not exceed 13'7", all other types may not exceed 11'7"		
R302.1 Exterior Walls	M/M		Unprotected roof overhangs may project within 2' of property line with proper fireblocking	References IBC for determining fire-resistance rating	
R302.2 Townhouse Separation	M/M		Common walls must now be rated 2hrs when not protected with an automatic sprinkler	Provides two means of achieving compliance	
R302.3 Two-Family Dwelling Separation	M			References IBC 703.3	
R302.4.2 Membrane Penetrations	M			Listed luminaires are permitted penetrations	
R302.5 Dwelling-Garage Opening Protection	M			Automatic-closing device permitted alternative to self-closing	
R302.10 Insulation Flame Spread	C			Facings and vapor retarders must comply when not concealed	
R302.13 Fire Protection of Floors above Crawl Spaces	C/M		Section has been relocated from Chapter 5 to Sec R302	Required where applicable to the framing members and above fuel fired or electric heating appliances	
R303.7, R303.8 Stairway Illumination	C		Interior and Exterior provisions have been separated		

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International Residential Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
R304.1 Minimum Habitable Room Area	M		The requirement for one habitable room with a minimum 120sq ft area has been removed		
R305 Ceiling Height	M		Minimum ceiling height for bathrooms and laundry rooms has been reduced to 6'8". Exception for obstructions to 6'4" has been expanded to include basements		
R308.4.2 Glazing Adjacent to Doors	M/M		Safety glazing installed perpendicular to a door in closed position and within 24" of door on hinge side in-swing	Glazing within 24 on hinge side of the door and 180° or less from plane shall be considered in a hazardous location	
R308.4.4 Glazing in Guards and Railings	M			Handrail/top rail required unless laminated glass is used	
R308.4.5 Glazing and Wet Surfaces	M		Exception from safety glazing greater that 60" from water also includes showers, saunas, and steam rooms		
R308.4.7 Glazing Adjacent to the Bottom Stair Landing	C/C		Now defined as the area in front of the plane of the bottom tread	Figure has been redrawn for clarity	
R310.1 Emergency Escape and Rescue Openings	C/M		Section has been reorganized. Separate provisions for windows and doors.	Not required for bedrooms in dwellings protected by an automatic sprinkler system	

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International Residential Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
R310.3 Area Wells for Emergency Escape and Rescue Doors	M			Replaces "bulkhead enclosure" with "area well" and adds provisions for ladders and steps	
R310.5, R310.6 Emergency Escape and Rescue Openings for Additions, Alterations, and Repairs	C		Not required if there is access to a basement with an existing opening. Alterations do not require unless a bedroom is added		
R311.1 Means of Egress	C		Required egress door must open directly to public way or a yard that opens to public way		
R311.7.1, R311.7.8 Handrail Projection	M			New exception for handrail projections	
R311.7.3 Maximum Stair Rise between Landings	M/M		Maximum vertical rise increased to 147"	Maximum rise has increased to 151"	
R311.7.5.1 Stair Risers	M		Open risers are permitted 30" or less from the floor		
R311.7.5.3 Stair Nosings	C			Clarifies that nosings must be consistent throughout the stairway	
R311.7.10.1 Spiral Stairways	M		Size is limited to a walkline dimension no greater than 24 ½ inches		
R311.7.11, R311.7.12 Alternating Tread Devices and Ships Ladders	A/M		Added to stair provisions, not to be used as a means of egress	May now be used in lofts that do not exceed 200ft²	

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International Residential Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
R311.8 Ramps	M		Ramps not required for egress may have a slope not greater than 1:8		
R312.1 Guards	C			Requirements only apply to those portions of the walking surface that exceed 30" above grade	
R312.1.2 Guard Height	M		Provision requiring guard height to be measured from surface of fixed seating has removed		
R312.2.1 Window Fall Protection	C		Provisions have been clarified to be consistent with IBC		
R314 Smoke Alarms	M/M		Battery operated alarms are permitted when alterations occur. New provisions for locations near bathrooms and cooking appliances	The exemption for interconnection of alarms based on feasibility has been removed	
R315 Carbon Monoxide Alarms	M/M		Require connection to electrical system and battery backup. Required in bedrooms with a fuel fired appliance in room or adjoining bathroom	Interconnection now required where multiple CO alarms are required	
R317.3 Fasteners in Treated Wood	M			Staples shall be stainless steel	
R322.1, R322.2 Flood Hazards	M		Provisions apply to existing buildings where 50% or more of the structure is damaged		

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International Residential Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
R322.3 Coastal High-Hazard Flood Zones	M/M		Coastal A Zones are defined and exceptions for A Zone foundations added	Specific guidance for slabs, stairs, decks to reduce damage to dwelling in a flood	
R324.4 Rooftop-Mounted Photovoltaic Systems	M			Requirements consolidated in R324.4	
R324.6 Roof Access for Photovoltaic Solar Energy Systems	A			Requirements have been added to IRC	
R324.6.2.2 Solar Panels near Emergency Escape and Rescue Openings	A			Shall not be installed within 36" below	
R325 Mezzanines	A		Provisions place limitations that are consistent with IBC		
R325.3 Mezzanine Area Limitation	M			Conditionally increased to ½ the floor area of the room it is located in	
R325.6, R202 Habitable Attics	A			Requirements for habitable attics to not be considered an additional story	
Chapter 4 - Foundations					
R403.1.1 Minimum Footing Size	M		Tables are expanded based off construction method and foundation type		
R403.1.2, R602.10.9.1 Continuous Footings in Seismic Design Categories D_0, D_1, and D_2	C		Clarifies continuous footing requirement and moves requirements from Section 6		
R403.1.3 Footing and Stem Wall Reinforcing in Seismic Design Categories D_0, D_1, and D_2	C		Clearly defines minimum reinforcing		
R403.1.6 Foundation Anchorage	M		Anchor bolts are required to be placed in middle third of sill		

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International Residential Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
Table R403.3(1) Insulation Requirements for Frost Protected Footings	M			Thickness requirements for EPS Foam have changed	
Table R403.4 Crushed Stone Footings	M			Updated to include minimum width and depth for precast concrete walls	
R404.1.4.1 Masonry Foundation Walls in Seismic Design Categories D_0, D_1, and D_2	M		Minimum vertical reinforcement increased to No. 4 bars spaced max 4' o/c		
R404.4 Retaining Walls	M		Retaining walls with more that 48" of unbalanced backfill shall be designed by an engineer		
R408.3 Unvented Crawl Spaces	M			Ventilation not required provided adequate dehumidifier is installed	
Chapter 5 - Floors					
Table R502.3.1(1), R502.3.1(2) Floor Joist Spans for Common Lumber Species	M		Approved lengths have changed for Southern Pine, Hem-Fir, and Doug Fir-larch		
R502.10 Framing of Floor Openings	M		Some requirements for header joist and trimmer connections removed		
Table R505.3.2 Cold-Formed Steel Joist Spans	M			Max spans are updated	
R507 Decks	M			Reorganized for ease of use and simplified prescriptive construction methods	
R507.1, R507.4 Decking	M		Code sets maximum allowable spacing for joists supporting decking material		

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International Residential Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
R507.2 Deck Materials	M			Adds requirements for fasteners, connections, flashing and alt materials	
R507.2 Deck Ledger Connection to Band Joist	C		Reorganized for clarity		
R507.2.4 Alternative Deck Lateral Load Connection	M		Requires two hold down devices to be within 2' of the end of the deck		
R507.3 Deck Footings	A			Describes minimum prescriptive requirements based on snow load, soil quality and footing	
R507.4 Deck Posts	M			Moved from R507.8	
R507.5 Deck Beams	M			Includes single-ply beams	
R507.6 Deck Joists	M			Maximum spacing and span length clarified	
R507.5, R507.6, R507.7 Deck Joists and Beams	A		New sections and tables provide prescriptive method		
R507.7, R507.8, R507.9 Decking, Vertical and Lateral Support	M			Material options and fastener systems clarified, updated support info	
R507.8 Deck Posts	A		New section established min sizes of wood posts and requirements for connection to footing		
Chapter 6 – Wall Construction					
Table R602.3(1) Fastening Schedule – Roof Requirements	M		Now contains multiple nail size options		
Table R602.3(1) Fastening Schedule – Wall Requirements	M		Now contains multiple nail size options, clarifies double top plate splicing		

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International Residential Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
Table R602.3(1) Fastening Schedule – Floor Requirements	M		Now contains multiple nail size options, clarifies joist/rim joist connection		
Table R602.3(6) Alternate Stud Height	A			A prescriptive requirement is added for studs greater than 10 feet	
R602.3.1 Stud Size, Height, and Spacing	M		Table R602.3.1 removed and exception for tall walls moved to this section		
Table R602.7(1), R602.7(2) Girder and Header Spans	M			Table updated assuming No.2 Southern Pine, additional footnote assumes braced girders and headers	
R602.7 Headers	M		Span tables have been moved to this section		
Table 602.7.5 Lateral Support for Headers	M			Number of required king studs altered based of wind region and header span	
Table R602.10.3(1) Bracing Requirements Based on Wind Speed	M		Table values changed due to use of ultimate design wind speed		
Table R602.10.3(4) Seismic Adjustment Factors	M			New bracing methods for brick veneer in multi-story	
R602.10.4.1 Mixing Bracing Methods	M			Intermittent alternate method must have sufficient bracing for that length	
Table R602.10.5 Contributing Length of Method CS-PF Braced Wall Panels	M		Value has increased by 50% in low-seismic regions		

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International Residential Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
R602.10.6.2 Method PFH: Portal Frame with Hold-Downs	M		Hold down capacity reduced to min 3500lbs		
R602.10.6.4 Method CS-PF – Continuously Sheathed Portal Frame	M			Slight change when posts are used to support frame	
R602.10.6.5 Method BV-WSP	M			Alternative provided where brick veneer on less than 25% of 2nd story	
R602.10.11 Cripple Wall Bracing	M		Reduction is no longer required in determining distance between braced wall panels		
R602.12 Simplified Wall Bracing	M		Now allowed for one- to three-story dwellings in Wind Exposure Cat B or C		
Tables R603.3.1 and R603.3.1.1(2) Cold-Formed Steel Wall Construction	M			Connection tables updated for wind speeds less than 140mph	
R603.9.5 Structural Sheathing over Steel Framing for Stone and Masonry Veneer	M		Table has expanded to include higher seismic design categories		
R606 Masonry Walls	C		Sections R606, R607, R608, R609 have been reorganized into one section		
R606.3.5 Grouting Requirements for Masonry Construction	M		Requirements have been combined into one section for various types of masonry construction		
Section R610 Structural Insulated Panels	M			Section has been reorganized and references APA PRS 610.1	
R610.7 Drilling and Notching in Structural Insulated Panels	M		Provisions have been clarified		

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International Residential Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
Chapter 7 – Wall Covering					
R703.2 Water-Resistive Barrier	M			Materials other than No. 15 asphalt felt must be installed per manufacturer's instructions	
R703.3 Siding Material Thickness and Attachment	M		Table R703.4 has been simplified, added details on fastener length		
R703.3.1 Soffit Installation	M			Requirements for wood panel soffits are added and vinyl soffit requirements are clarified	
R703.5 Wood, Hardboard, and Wood Structural Panel Siding	M		Minimum spacing has been moved to this section		
R703.6 Wood Shakes and Shingles on Exterior Walls	M		Provisions have been reorganized		
R703.8.4 Veneer Anchorage through Insulation	M			Masonry veneer is explicitly allowed to attach through insulation into underlying structural panels	
Table R703.8.4(1) Airspace Requirements	M			New footnote allows drainage airspace to contain some mortar spill	
R703.9 Exterior Insulation and Finish Systems	M		Limitations for EIFS with and without drainage have been added		
R703.11.1 Vinyl Siding Attachment	A		New code clarifies nailing requirements for horizontal and vertical applications		

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International Residential Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
R703.11.2 Vinyl Siding Installation Over Foam Plastic Sheathing	M			Requirements for wind load resistance provided for connections to foam sheathing	
R703.12, R703.14 Insulated Vinyl Siding and Polypropylene Siding	A		New sections set minimum requirements for insulated vinyl and polypropylene siding		
R703.15, R703.16, R703.17 Cladding Attachment over Foam Sheathing	A		Set minimum requirements for cladding attachment over foam sheathing to wood, steel, and masonry walls		
Chapter 8 – Roof-Ceiling Construction					
R802 Roof Framing	M			Section has been divided into three separate sections on roof ridges, rafters, and ceiling joists	
R802.1.5.4 Labeling	M			Each stick of fire-retardant-treated lumber and structural panel require labelling with eight specific items	
Tables R802.4, R802.5 Ceiling Joist and Rafter Tables	M		Spans for So. Pine, Doug Fir-Larch, and Hemlock Fir have changed		
R806.1 Attic Ventilation	D		Exception allowing the building official to waive requirements has been deleted		

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International Residential Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
R806.2 Minimum Vent Area	M			Minimum vent area exception is permit only if both conditions are met	
R806.5 Unvented Attics	M			Item 5.2 is added as a method of compliance for unvented attics in Climate Zones 1, 2, and 3	
Table R806.5	M		Footnote allows for continuous insulation above structural roof sheathing in unvented attics and rafter spaces		
Chapter 9 – Roof Assemblies					
R905.1.1 Underlayment	M		Multiple provisions from 2012IRC have been combined into this section		
Tables R905.1.1(1) and R905.1.1(2) Underlayment Requirements for Photovoltaic Shingles	M			Revised for consistency with other roofing materials	
R905.7.5 Wood Shingle Application	M		Minimum requirements for application have been expanded as well as clarification on fasteners		
R905.8.6 Wood Shake Application	M		Minimum requirements for application have been expanded as well as clarification on fasteners		

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International Residential Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
R905.16 Photovoltaic Shingles	M		Additional requirements for roof decks, minimum slope, underlayment and ice barriers		
R905.17 Building Integrated Photovoltaic Panels	A			New section addresses installation of building integrated roof panels	
R907 Rooftop-Mounted Photovoltaic Systems	A		Specific provisions reference section R324 and NFPA 70		
Chapter 10 – Chimneys and Fireplaces					
R1005.8 Chimney Insulation Shield	A			Factory-built chimneys are now required to have an insulation shield to provide clearance.	
Appendix Q – Tiny Houses					
AQ102 Definitions	A			Add definitions of Egress Roof Access Window, Landing Platform, Loft, and Tiny House	
AQ103 Ceiling Height	A			Establishes requirements for minimum ceiling heights in habitable areas, bathrooms and kitchens	
AQ104 Lofts	A			Establishes requirements for minimum area, stairway width and headroom, treads and risers, stairway capacity, and loft guards	
AQ105 Emergency Escape and Rescue Openings	A			Establishes requirements to comply with Section R310 for openings	

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International Mechanical Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
Chapter 1 – Administration					
No changes addressed					
Chapter 2 – Definitions					
202 Definition of Commercial Cooking Appliance	M			Used in commercial establishments for heating or cooking at a volume or frequency not representative of domestic household cooking.	
Chapter 3 – General Regulations					
304.11 Fall-Arresting Restraint Systems	M		May be used instead of guards on roofs		
306.1 Access	M		Required for HVAC controls, heat exchangers, and similar components		
307.2.5 Condensate Drain Line Maintenance	A		Shall be configured to permit maintenance without requiring line to be cut		
307.3 Condensate Pumps in Uninhabitable Spaces	A		Shall be connected to appliance to prevent operation when pump fails		
Chapter 4 – Ventilation					
401.2, 407.1, Table 403.3.1.1 Ventilation Required	M		Ambulatory Care facilities and Group I-2 Occupancies require mechanical ventilation per ASHRAE 170		
403.2.1, Table 403.3.1.1 Recirculation of Air	C		Permitted within specific spaces by notes b and g		

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International Mechanical Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
403.3 Outdoor Air and Local Exhaust Airflow Rates	A		R-2, R-3, R-4 structures less than four stories shall comply with ASHRAE 62.2		
403.3.2.4 Outdoor Air Ventilation for Dwelling Units	A		Controls shall be labeled to indicate function		
403.3.2.5 Dwelling Unit Ventilating Equipment	A		Shall be listed and labeled		
Table 403.3.1.1 Manicure and Pedicure Station Exhaust Rate	M		Revises inlet locations and exhaust rate		
404.1 Intermittent Operation of Mechanical Ventilation Systems for Enclosed Parking Garages	M/M		Must operate continuously or automatically by means of CO and NO2 detectors	Rewritten to clarify intermittent operation	
Chapter 5 – Exhaust Systems					
501.3 Mechanical Exhaust System Discharge	M		"Public nuisance" language added		
502.20 Manicure and Pedicure Station Exhaust System	A		Located not more than 12" away horizontally and vertically		
504.4 Sealing of Clothes Dryer Exhaust Ducts	M			Sealed in accordance with Section 603.9	
504.4.1 Clothes Dryer Exhaust Termination	A			Open area of not less than 12.5 sq in	
504.5, 504.8.4.3 Dryer Exhaust Duct Power Ventilators	A		New text recognizes installation per manufacturer's specs		
504.8.2 Dryer Exhaust Duct Installation	M/M		Fasteners may not penetrate more than 1/8"	Where in wall, cavities must allow installation without duct deformation	
505.1, 505.4 Domestic Range Hoods	M		Scope includes other than Group-R		
505.3 Domestic Kitchen Exhaust Systems in Multistory Buildings	A		New text for construction of common exhaust shafts		

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International Mechanical Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
506.3.7.1 Grease Duct Reservoirs	M		Requires a drain and be the full width of the duct		
506.3.8 Grease Duct Cleanouts and Openings	M		All spacing provisions are now consistent with requirements for horizontal ducts		
506.3.11 Grease Duct Enclosures	M		Prohibits installation of fire and smoke dampers in grease ducts		
506.3.13 Type 1 Hood Exhaust Termination	M			Shall not be located within 3’ of any exterior opening	
506.5.1.2 In-Line Fan Location in Exhaust Ducts Serving Commercial Kitchen Hoods	A		Room shall have same fire resistance rating as the duct enclosure and access shall be provided		
506.5.2, 202 Pollution Control Units	A			Added provisions and definitions for PCUs installed in grease exhaust systems	
506.5.3 Hinged Up-Blast Fans for Type 1 Hoods	M		Requires a means to limit travel of the fan assembly to prevent injury or damage		
507.1 Type I Hood Installation	M		Shall comply with all aspects whether installed by code or choice		
507.1.1 Commercial Kitchen Exhaust Hood System Operation	M		Interlock on appliances as an alternative to automatic hood operation		
507.1.1.1 Heat Sensors for Multiple Commercial Kitchen Hoods	A		Prohibits use of single sensor in ductwork for multiple hoods		
507.2.6 Clearances for Type 1 Hood	A			New exception for hoods listed for less than 18” clearance	

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International Mechanical Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
507.2.8 Type 1 Hood Grease Filters	M		Disposable grease filters are now recognized in the code		
508.1.2 Air Balance for Commercial Kitchen Ventilation Systems	A		Must be submitted with design plans		
510.4, 510.5 Hazardous Exhaust Systems	M		Revised provisions for shared exhaust		
510.7.1.1 Hazardous Exhaust Duct Penetrations of Shafts	A		Refers to IBC requirements for protection of rated assemblies		
514.2 Energy Recovery Ventilation Systems	M		Use of coil-type heat exchangers shall not be limited by this section		
Chapter 6 – Duct Systems					
601.5 Return Air Openings	A		Relocated from Chapter 9 and clarified for intent		
602.1 Plenums Limited to One Fire Area	C		Cannot connected regardless of dampers		
602.2 Plenum Construction	M		Materials must comply with IBC Section 703.5 or have a 25/50 flame spread/smoke developed index		
602.2.1.5 Discrete Plumbing and Mechanical Products in Plenums	A		Shall be listed and labeled for plenum use		
602.2.1.8 Pipe and Duct Insulation within Plenums	A			Shall have a 25/50 flame spread/smoke developed index	
Table 603.4 Duct Construction Minimum Sheet Metal	M		Table updated for consistency with new SMACNA Standards		
603.5.2 Phenolic Ducts	A			Added coverage for nonmetallic phenolic duct	
603.8.2 Testing of Underground Ducts	M			Shall be tested before burial	

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International Mechanical Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
603.9 Duct Joints, Seams and Connections	M		Sealing tapes and mastics for flexible ducts shall be listed to UL181B		
607.3.1 Ceiling Radiation Dampers	M			Required to be dynamic type where subject to continuous air flow	
Chapter 7 – Combustion Air					
701.2 Dampered Openings	A		Dampers on combustion air openings must be interlocked with appliances		
Chapter 8 – Chimneys and Vents					
802.9 Door Clearance to Vent Terminals	A		Doors cannot swing within 12" of terminal		
Chapter 9 – Specific Appliances, Fireplaces and Solid-Fuel Burning Equipment					
903.4 Gasketed Fireplace Doors	A		Shall not be installed unless specifically listed		
929, 202 High-volume Large Diameter Fans	A			Tested and labeled in accordance with AMCA 230, UL 507	
Chapter 10 – Boilers, Water Heaters and Pressure Vessels					
No Changes Addressed					
Chapter 11 – Refrigeration					
1102.3 Refrigerant Access Port Protection	A		Existing systems shall be made tamper resistant when serviced		
1105.6.3 Ammonia System Ventilation Rate	M			Rate required for both normal and emergency operations	
1107.2 Refrigerant Piping Location	M			Rewritten to clarify prohibited locations	

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International Mechanical Code 2012-2018 Significant Changes

Section/Topic	Type	2012	2015	2018	Comments
Chapter 12 – Hydronic Piping					
No Changes Addressed					
Chapter 13 – Fuel Oil Piping and Storage					
No Changes Addressed					
Chapter 14 – Solar Systems					
	M			Chapter rewritten for consistency with current technology	
Chapter 15 – Referenced Standards					
No Changes Addressed					

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