

2018 International Residential Code Changes

Covers transition from 2012 IRC to 2018 IRC as adopted and amended by the Administrative Rules of Montana (ARM) Rule No. 24.301.154

Chapters 1 & 2 Scope and Administration/ Definitions

1. R101.2 & R202 Scope
 - The maximum height for accessory structures has been increased from two to three stories above grade plane. Technical requirements have been removed from the definition and accessory structures are now permitted to be unlimited in area.
 - All instances where the IBC permits construction under the IRC are now listed in the exception to the scope of the IRC.
2. R102.7
 - [State Amendment] Subsection R102.7, Existing Structures, is deleted and replaced with the following: "The legal occupancy of any structure existing on the date of this code shall be permitted to continue without change, except as is specifically covered in this code or the legally adopted fire code as administered by the fire authority having jurisdiction."
3. R104.11 Alternative materials, design and methods of construction and equipment
 - When proposed alternatives are not approved the reason for the disapproval must be stated in writing by the building official.
 - The process to gain compliance through the alternative materials and methods provisions now requires an application by the owner or owners authorized agent and gives authority to the building official to approve based on a prescriptive list of equivalencies.
4. R105.1, R110.1, R202 Change of Occupancy
 - A definition for "Change of Occupancy" has been added and the requirement for a certificate of occupancy, when there is a change of occupancy or use, has been clarified.
5. R105.3.1.1 Existing buildings in flood hazard areas
 - Determination of *substantial improvement* for existing buildings in flood hazard areas is now the responsibility of the building official. The related provisions are consolidated in Section R105.3.1.1.
6. R202 Definition of Access
 - New definitions for "access" and "ready access" apply to equipment and devices that must be reached for service or replacement.

Chapters 3 Building Planning

1. Table R301.2(1) Climatic and Geographic Design Criteria
 - The jurisdiction must indicate in Table R301.2(1) if it contains special wind regions or wind borne debris zones.
 - Jurisdictions must now also include variables for Manual J assessments with other climatic and geographic design criteria.
2. R301.2.1, R202 Wind Design Criteria and Wind Speed Maps
 - Ultimate design wind speed values replace basic wind speed values for 3-second gust wind speeds in section R301.2.2 A wind speed conversion table has been added for conversion from ultimate design V-ult to nominal design wind speeds, V-asd.
3. R303.2.1.1.1 Sunrooms
 - The code requires sunrooms to comply with AAMA/NPEA/NSA 2100-12. This standard contains requirements for habitable and uninhabitable sunrooms.
4. R301.2.1.2 Protection of Openings in Wind Borne Debris Regions
 - The mean roof height limit has been increased from 33' to 45' for the prescriptive attachment provisions for wood structural panels protecting glazing. The ASTM E 1996 standard has been modified to classify wind zones according to ultimate design wind speed.
5. R301.2.1.4 Wind Exposure Category
 - Wind exposure Category A has been deleted because it no longer exists in the IBC and ASCE 7, which is the basis for determination for wind exposure categories. Wind Exposure Category D now applies to open water, mud and salt flats, and unbroken ice fields which includes hurricane-prone reasons.
6. R301.2.2.1 Seismic Design Category

- A new seismic map allows potentially a lower seismic design category (SDC) based on a determination of soil type. (Note: Our jurisdiction assumes Category D unless you can provide a geotech report verifying soil type to justify IBC/ASCE 7)
7. R301.3 Story Height
 - Story height of wood and steel wall framing, insulated concrete and SIP walls may not exceed 11'7". Masonry wall height is limited to 13'7".
 8. R301.6 Roof Load
 - [State Amendment] Subsection R301.6, Roof Load, is deleted and replaced with the following: "Snow loads shall be determined by the building official. In areas of the state outside of certified city, county, or town jurisdictions, the design snow load shall be based on the ground snow loads developed in "Snow Loads for Structural Design in Montana", Civil Engineering Department, Montana State University, 2004 revised edition. The minimum design roof snow load after allowed reductions shall be 30 psf unless justified by a Montana licensed design professional to the satisfaction of the building official. Coefficients and factors other than those specified in the building code may be used when justified by a Montana licensed design professional to the satisfaction of the building official."
 9. R302.1 Exterior Walls
 - Unprotected roof overhangs are now permitted to project within 2' of the property line when fireblocking is installed between the top of the wall and the roof sheathing. In most cases, projections are not permitted less than 2' from the property line. For dwellings with or without fire sprinkler protection, penetrations of exterior walls do not require fire-resistant protection unless they are located less than 3' from the property line.
 - References to the IBC offer additional options and provide flexibility in determining the fire resistance rating of exterior wall assemblies. Table footnotes have been revised to clarify the correlation between gable end vents and the fire resistance requirements for projections.
 - [State Amendment] Subsection R302.13, Fire Protection of Floors, is deleted in its entirety.
 10. R302.2 Townhouse Separation
 - Language describing townhouses as separate buildings and reference to Section R302.1 have been removed. Common walls separating townhouses must now be rated for 2 hours when an automatic fire sprinkler system is not installed in the townhouse dwelling units.
 - Two paths for achieving the fire-resistant separation between townhouse dwelling units – two 1-hr walls or a common wall - are spelled out in the townhouse provisions.
 - [State Amendment] Subsection 302.2.4, Structural Independence, delete exception number five and replace with the following: "Townhouses separated by a common two-hour fire-resistance-rated wall as provided in Section R302.2."
 - [State Amendment] Subsection 302.2.2, Common walls, delete "Chapters 34 through 43" and replace with "the adopted electrical code in ARM Title 24, chapter 301, subchapter 4."
 11. R302.3 Two-family Dwelling Separation.
 - IBC Section 703.3 is referenced as an option for determining fire resistance ratings.
 - ~~12. R302.13 Fire Protection of Floors~~
 - ~~• The provisions for fire protection of floors have been relocated from Chapter 5 to the fire resistant construction provisions of R302. New language clarifies that the code does not regulate penetrations or openings in the fire protective membrane.~~
 - ~~• Fire resistant membrane protection is now required for the applicable floor framing materials above crawl spaces containing fuel-fired or electric-powered heating appliances.~~
 - [State Amendment] Subsection R302.13, Fire Protection of Floors, is deleted in its entirety.
 13. R303.7 & R303.8 Stairway Illumination
 - Interior and exterior stairway illumination provisions have been placed in separated sections. Conflicting language has been removed to clarify the requirements.
 14. R304.1 Minimum Habitable Room Area
 - The requirement for one habitable room with a minimum floor area of 120SF has been removed from the code.
 15. R305 Ceiling Height
 - The minimum ceiling height for bathrooms, toilet rooms and laundry rooms has been reduced to 6'8". The exception for allowing beams, girders, ducts or other obstruction to project to within 6'4" of the finished floor has been expanded to include basements with habitable space.
 16. R308.4.2 Glazing Adjacent to Doors

- Glazing installed perpendicular to a door in a closed position and within 24" of the door only requires safety glazing if it is on the hinge side of the inward swinging door.
 - Glazing within 24" of the hinge side of an in-swinging door now requires safety glazing where the glazing is at an angle less than 180 degrees from the plane of the door.
17. R308.4.4 Glazing in Guards and Rails
- Unless laminated glass is used, structural glass baluster panels in guards now require an attached top rail or handrail.
18. R308.4.5 Glazing and Wet Surfaces
- The exception for safety glazing requirements for glazing that is 60" or greater from the water's edge of a bathtub, hot tub, spa, whirlpool or swimming pool has been expanded to include glazing that is an equivalent distance from the edge of a shower, sauna or steam room.
19. R308.4.7 Glazing Adjacent to the Bottom Stair Landing
- Glazing adjacent to the bottom stair landing is now defined as the area in front of the plane of the bottom tread.
 - Figure R308.4.7 has been replaced with a new figure and the caption modified to more accurately reflect when safety glazing is required near the bottom landing.
- ~~20. R309.5 & R313 Fire Sprinklers~~
- [State Amendment] Subsection 309.5, Fire Sprinklers, is deleted in its entirety.
 - [State Amendment] R313, Automatic Fire Sprinkler Systems, is deleted in its entirety.
21. R310 Emergency Escape and Rescue Openings
- The emergency escape and rescue opening provisions have been reorganized. Separate provisions spell out the requirements for windows and doors used for emergency escape and rescue.
 - Emergency escape and rescue openings are no longer required for bedrooms in basements when the dwelling unit is protected with an automatic fire sprinkler system and other conditions are met.
22. R310.3 Area Wells for Emergency Escape and Rescue Doors
- For emergency escape and rescue doors in basements, a change in terminology replaces "bulkhead enclosures" with "area wells" and provisions for ladders and steps for area wells have been added.
23. R310.5 & R310.6 Emergency Escape and Rescue Opening for Additions, Alterations and Repairs
- The basement of a dwelling addition does not require an emergency escape and rescue opening if there is access to a basement that does not have an emergency escape and rescue opening. Remodeling of an existing basement does not trigger the emergency escape and rescue opening requirements unless a new bedroom is created.
24. R311.7.1 & R311.7.8 Handrail Projection
- A new exception to the handrail projection limitation provides for adequate clearance behind the handrail when it passes the projection of a floor, landing or tread return.
25. R311.7.5.1 Stair Maximum/Minimum
- [State Amendment] Subsection R311.7.5.1, Risers, is amended to allow a maximum riser height of 8 1/4 inches.
 - [State Amendment] Subsection R311.7.5.2, Treads, is amended to allow a minimum tread depth of nine inches.
26. R311.7.3 Maximum stair Rise Between Landings
- Max vertical rise increased from 12' to 12' 7"
27. R311.7.11 & R311.7.12 Alternating Tread Devices and Ships Ladders
- Definitions and requirements for alternating tread devices and ships ladders have been added to the code and are now permitted as a means of egress for lofts with an area that does not exceed 200SF.
28. R311.8 Ramps
- Ramps that do not serve the required egress door are now permitted to have a slope not greater than 1 unit vertical in 8 units horizontal (1:8; previously 1:12).
29. R312.1 Guards
- The provision requiring that the guard height be measured from the surface of adjacent fixed seating has been removed from the code.
 - Alternating tread devices and ships ladders are now permitted as a means of egress for lofts with an area that does not exceed 200SF.
 - [State Amendment] Subsection 312.1.1, Where Required, delete the first sentence and replace with the following: "Guards shall be located along open-sided walking surfaces, including stairs, ramps, and landings, that are located more than 30 inches measured vertically to the floor or grade below."

30. R314 Smoke Alarms

- Battery operated smoke alarms are permitted for satisfying the smoke alarm power requirements when alterations, repairs and additions occur. Household fire alarm systems no longer require monitoring by an approved supervising station. New provisions address smoke alarms installed near bathrooms and cooking appliances.
- The exemption for interconnection of alarms during alterations based on feasibility has been removed from the code (note: they now make Bluetooth enabled interconnected alarms)

31. R315 Carbon Monoxide Alarms

- Carbon monoxide alarms now require connection to the house wiring system with battery backup. Exterior work such as roofing, siding, windows, doors, and deck/ porch additions no longer trigger carbon monoxide alarm provisions for existing buildings. An attached garage is one criterion for requiring carbon monoxide alarms, but only if the garage has an opening in to the dwelling. A carbon monoxide alarm is required in bedrooms when there is a fuel-fired appliance in the bedroom and adjoining bathroom.
- Interconnection is now required where multiple carbon monoxide alarms are required in a dwelling unit.

32. 322.3 Coastal High-Hazard Flood Zones

- Coastal A Zones are defined and an exception for foundation types in Coastal A Zones added.
- In coastal high-hazard areas (V Zones) and Coastal A Zones, the IRC now provides specific guidance for the design and construction of concrete slabs, stairs, guards, decks and porches to reduce damage to the dwelling in a flood event.

33. R324.6 Roof Access for Photovoltaic Solar Energy Systems

- Requirements for roof access and pathways for firefighters have been introduced into the IRC provisions for rooftop mounted photovoltaic solar energy systems.

34. R324.6.2.2 Solar Panels near Emergency Escape and Rescue Openings

- Rooftop mounted PV solar energy panels and modules are not permitted to be installed below emergency escape and rescue openings.

35. R325 Mezzanine Area Limitation

- New provisions place limitations on the construction of mezzanines related to ceiling height and openings consistent with the IBC.
- The area limitation for mezzanines has been increased from 1/3 to 1/2 of the room containing the mezzanine under certain conditions.

36. R324.6 & R202 Habitable Attics

- The definition of *habitable attic* has been revised and the technical requirements have been placed with mezzanines.

37. R326 Swimming Pools, Spas and Hot Tubs

- The design and construction of pools and spas shall comply with the International Swimming Pool and Spa Code (ISPSC). Appendix G, *Swimming Pools, Spas and Hot Tubs*, has been deleted.

Chapter 4 Foundations

1. R403.1.1 Minimum Footing Size

- Min footing size and thickness is divided into three expanded tables based on the type of construction; light-frame, light-frame with veneer and concrete or masonry. The values area is also based on the type of foundation: slab on grade, crawl space, and basement.
- [State Amendment] R403.1.1, Minimum size, is modified to add the following: "Exception: The building official may allow footings to be designed in accordance with Section R403 of the 2012 IRC or may allow footings engineered by a design professional."

2. R403.1.3 Footprint and Stem Wall Reinforcing in Seismic D Design Categories

- Updated figures and code provisions now clearly define min required reinforcement in footings and stem walls located in seismic D zones.

3. R403.1.6 Foundation Anchorage

- Anchor bolts are now required to be placed in the middle third of the width of the sill plate. Approved anchors may be used instead of 1/2" anchor bolts.
- [State Amendment] Subsection 403.1.6, Foundation Anchorage, is deleted in its entirety and replaced with the following: "Where wood sill and sole plates are supported directly on continuous foundation walls or monolithic slabs with integral footings required by the provisions of this code, they shall be anchored to the foundation in accordance with this section. Cold-formed steel floor and wall framing shall be anchored to the foundation in accordance with Section R505.3.1 or R603.3.1. Wood sole plates at all exterior walls,

wood sole plates of braced wall lines at building interiors on monolithic slabs with integral footings and all wood sill plates shall be anchored to the foundation with minimum one-half inch diameter anchor bolts spaced a maximum of six feet on center or approved anchors or anchor straps spaced as required to provide equivalent anchorage to the one-half inch diameter anchor bolts. Bolts shall extend a minimum of seven inches into concrete or grouted cells of concrete masonry units. A nut and washer shall be tightened on each anchor bolt. There shall be a minimum of two bolts per plate section with one bolt located not more than 12 inches or less than seven bolt diameters from each end of the plate section. Interior bearing wall sole plates on monolithic slab foundations with integral footings that are not part of a braced wall line shall be positively anchored with approved fasteners. Sill plates and sole plates shall be protected against decay and termites where required by sections R317 and R318.

Exceptions:

- i. Walls 24 inches total length or shorter connecting offset braced wall panels shall be anchored to the foundation with a minimum of one anchor bolt located in the center third of the plate section and shall be attached to adjacent braced wall panels at corners as shown in item 8 of Table R602.3(1).
- ii. Connections of walls 12 inches total length or shorter connecting offset braced wall panels to the foundation without anchor bolts shall be permitted. The wall shall be attached to adjacent braced wall panels at corners as shown in item 8 of table R602.3(1)."

4. Table R403.3(1) Insulation requirements for frost protected footings

- Insulation thickness requirements for Type II and IX extruded polystyrene (EPS) have changed. The minimum R-Value for specific types of EPS has been clarified while requirements for horizontal insulation were added.

5. Table R403.4 Crushed Stone Footings

- Table R403.4 is updated to include both the minimum depth and width of a crushed stone footing for a precast concrete wall.

6. R404.4 Retaining Walls

- Retaining walls, freestanding walls not supported at the top, with more than 48" of unbalanced backfill must be designed by an engineer. Retaining walls resisting additional lateral loads and with more than 24" of unbalanced backfill must also be designed in accordance with accepted engineering practice.

7. R405.1

- [State Amendment] R405.1 is amended by adding the following: "A drainage system is not required when continuous rain gutters are installed incorporating drain extensions which divert storm water a minimum of six feet (1.83 m) away from the foundation and grading is done in accordance with R401.3. A drainage system may be required where high water tables are known to exist or geological conditions which require a soils engineering report, performed in accordance with R401.4, specify the need for foundation drainage."

8. R408.3 Unvented Crawl Space

- Ventilation of the under-floor space is not required when an adequately-sized dehumidifier is provided.

Chapter 5 Floors

1. Tables R502.3.1(1), R502.3.1(2) Floor Joist Spans for Common Lumber Species

- Changes to Southern Pine (SP), Douglass Fir-Larch (DFL) and Hemlock Fir (HF) lumber capacities have changed the floor joist span length in the tables of the IRC. Span lengths for Southern Pine have decreased; lengths for DFL and HF joists have slightly increased.

2. R507 Decks

- Section R507 is reorganized for ease of use and additional provisions are added to simplify prescriptive construction of a deck.

3. R507.2 Deck Materials

- Requirements for fasteners and fastener connections, flashing and alternative materials have been added.

4. R507.3 Deck Footings

- A new section on footing minimum size is added to help describe minimum prescriptive (non-engineered) requirements for an exterior deck footing based on snow load, soil quality and footing shape/size.

5. R507.4 Deck Posts

- The code established min sizes of wood posts supporting wood decks and describes the requirements for connection of deck posts to the footing. Information on deck posts moved to the middle of Section R507 as topics flow in the order of construction sequence.

6. R507.5 Deck Beams
 - The code establishes max deck beam spans in a new table. Prescriptive beam to post connection details are provided. Beam bearing and connection to posts are clarified.
7. R507.6 Deck Joists
 - The code establishes max deck joist spans in a new table that includes materials common to deck construction.
 - Max joist spacing and total length have been clarified. In table R507.6 max span length is followed by max cantilever length.
8. Sections R507.7-R507.9 Decking, Vertical and Lateral Support
 - The code sets the max allowable spacing for deck joists supporting various types of common decking materials. The deck ledger section is reorganized to better describe the min requirements for connection of deck ledgers to band joists.
 - Decking material options and fastener systems are clarified. Vertical and Horizontal support of an exterior deck is updated while support and attachment of ledgers is placed to follow the decking section.
9. R507.9.2 Alternative Deck Lateral Load Connection
 - When the prescriptive *deck lateral loads connection* that has appeared in the previous editions of the code is chosen as a design option, the code now requires the two hold-down devices to be within 2' of the ends of a deck. A new lateral load connection option prescribes four hold-downs installed below the deck structure.

Chapter 6 Wall Construction

1. Table R602.3(1) Fastening Schedule
 - The fastening schedule now contains multiple nail options, including box nails and air-driven nail sizes. Roof rafter connections at ridge, valley and hip are revised. Double top plate splicing is clarified. The joist-to-band-joist (rim board) connection is added.
2. R602.3.1 Alternative Stud Height
 - Table R602.3.1 is deleted and exception #2 for walls greater than 10' tall is added to the text of section R602.3.1. If studs in a tall wall meet exception #2, they meet the requirements of the IRC and do not need engineering or use of an alternate standard.
 - A prescriptive requirement is added for studs greater than 10' in height in a new exception (#3) to section R602.3.1 as well as reference to a new table R602.3 (6) that applies to 11-and-12' tall walls in one and two-story buildings.
3. R602.7.1, Tables R602.7(1), R602.7(2) Girder and Header Spans
 - The girder and header span tables of Chapter 5 [Tables R502.5(1) and (2)] have been moved to CH 6, to the header section. Multi-ply and single header tables are combined. A new section describing rim board headers and a section for headers of open porches have been added.
 - Girder and header spans are updated assuming No. 2 Southern Pine rather than No. 1 SP as used in the 2015 IRC. A footnote is added to clarify that headers and girders are assumed to be braced; for headers with pony walls above, a further reduction in span is taken for 2x8 and larger headers.
4. Table R602.7.5 Support for Headers
 - New table R602.7.5 specifies the minimum number of full-height studs at the end of each header based on header span and stud spacing.
 - The 2015 IRC full height stud table is significantly altered. The min number of full-height studs at the end of each header is based on header span, wind speed and wind exposure category. The table increases the number of king studs in higher wind regions and requires only one or two king studs at each end of a header in regions with 115mph wind speeds and wind exposure Category B.
5. R602.10.3(4) Seismic Adjustment Factors
 - Attempts to clarify roof and ceiling dead loads in the top story of a multi-story dwelling and use of the BV-WSP bracing methods have been added. Table R602.10.3(4) now allow the use of methods WSP and CS-WSP with brick veneer in the second story of a dwelling.
6. R602.10.4.1 Mixing Bracing Methods
 - Mixing of continuous sheathing methods with an intermittent alternated bracing method is clarified. Braced wall lines(s) containing an alternate method must have sufficient bracing length for an intermittent method, not just for the continuous sheathing method when the alternate method is Method PFH, PFG or ABW.
7. R602.10 Wall Bracing

- [State Amendment] Subsection 602.10, Wall Bracing, delete the first sentence and replace with the following: "Building shall be braced in accordance with this section or, when applicable, Section R602.12, or the most current version of APA System Report SR-102 as an alternate method.
8. R602.10.10 Cripple Wall Bracing
 - [State Amendment] Subsection R602.10.10, Cripple Wall Bracing, add the following sentence: "The distance between adjacent edges of braced wall panels shall be 20 feet."
 9. Table R602.10.5 Contributing Length of Method CS-PF
 - The contributing length of continuously sheathed portal frames (Method CS-PF) in low seismic regions has increased by 50%.
 10. R602.10.6.2 Method PFH: Portal Frames with Hold-downs
 - Due to recent testing of Method PFH: Portal Frame with Hold-downs, min required capacity of the hold-downs is lowered to 3500 pounds from the previous 4200 pounds. Additionally, the new testing confirms that two sill plates are sufficient under each braced wall panel of the portal rather than the three plates used in method PFH previously.
 11. R602.10.6.4 Method CS-PF Continuously Sheathes portal frame
 - CS-PF has been tweaked slightly in this code edition. A note is added emphasizing that when a single CS-PF is built, the side of the portal frame that has a post must have continuous sheathing beyond the end of the portal frame.
 12. Section R602.12 Simplified Wall Bracing
 - Simplified wall bracing is now allowed for one-to-three-story dwellings and townhouses in Wind exposure Category B or C with ultimate design wind speeds of 130mph or less.
 13. R703.2 Water Resistive Barrier
 - Water-resistive barrier materials other than No.15 asphalt felt must be installed following the manufacturer's installation instructions. The exemption for detached accessory buildings is deleted.
 14. R703.3 Siding Material Thickness and Attachment.
 - New code language clarifies the limitations of use for Table R703.4 and describes fastener type, length, and penetration criteria. Table R703.4, Weather Resistant Siding Attachment and minimum thickness, is simplified.
 15. R703.3 Soffit Installation
 - Requirements for wood structural panel soffits are added to Section R703.3.1 and vinyl soffit requirements are clarified.
 16. R703.4 Flashing
 - [State Amendment] R703.4, Flashing, delete the first paragraph in its entirety and replace with the following: "Flashing shall be provided in accordance with this section to prevent entry of water into the wall cavity or penetration of water to the building structural framing components. Flashing shall extend to the surface of the exterior wall finish or to the water-resistive barrier for drainage and shall be installed at all of the following locations:"
 - [State Amendment] Further, delete Number "1", number "1.1", number "1.2", and number "1.3" in their entirety and replace with the following: "1. Exterior window and door openings." Number "2" through "7" remain unchanged in Subsection R703.4.
 - [State Amendment] Add new subsection as follows: "R703.4.1, Flashing Materials. Approved flashing materials shall be corrosion-resistant. Self-adhered membranes used as flashing shall comply with AAMA 711. Pan Flashing shall comply with Subsection R703.4.2. Installation of flashing materials shall be in accordance with Subsection R703.4.3.
 - [State Amendment] Add new subsection as follows: "R703.4.2, Pan Flashing. Pan Flashing installed at the sill of exterior window and door openings shall comply with this section. Pan Flashing shall be corrosion-resistant and shall be permitted to be pre-manufactured, fabricated, formed, or applied at the job site. Self-adhered membranes complying with AAMA 711 shall be permitted to be used as Pan Flashing. Pan Flashing shall be sealed or sloped in such a manner as to direct water to the surface of the exterior wall finish or to the water-resistive barrier for subsequent drainage."
 - [State Amendment] Add new subsection as follows: "R703.4.3, Flashing Installation. Installation of flashing materials shall be in accordance with one or more of the following methods:
 - i. The fenestration manufacturer's installation and flashing instructions.
 - ii. The flashing manufacturer's installation instructions.
 - iii. Flashing details approved by the Building Official.
 - iv. As detailed by a Registered Design Professional."

17. R703.8.4 Veneer anchorage through insulation

- Masonry veneer is explicitly allowed to attach through insulation into the underlying wood structural panels. Attachments must follow Table R703.8.4(2).

18. R703.9 Exterior Insulation and finish systems (EIFS)

- Limitations for exterior insulation and finish systems with and without drainage have been added to the code.

19. R703.11 Vinyl Siding

- Nailing penetration and spacing requirements are clarified for horizontal and vertical vinyl siding.
- Testing has been done on vinyl siding over insulation in an attempt to determine fastener requirements for vinyl siding attachment in high wind regions. New table R703.11.2 gives design wind pressures for vinyl siding resisting all wind loads without reliance on wood structural panel sheathing.

20. R703.13 Insulated Vinyl Siding and Polypropylene Siding

- New sections set minimum requirements for insulated vinyl siding and polypropylene siding.
- Testing has been done on vinyl siding over insulation in an attempt to determine fastener requirements for vinyl siding attachment in high wind regions. New table R703.11.2 gives design wind pressures for vinyl siding resisting all wind loads without reliance on wood structural panel sheathing.

21. R703.13 Insulated Vinyl Siding and Polypropylene Siding

- New sections set minimum requirements for insulated vinyl siding and polypropylene siding.

22. R703.17 Cladding attachment over foam sheathing

- Three new sections set minimum requirements for insulated vinyl siding and polypropylene siding.

23. R703.17 Cladding attachment over foam sheathing

- Three new sections set minimum requirements for cladding attachment over foam sheathing to wood framing cold formed steel framing and masonry or concrete walls. For light-frame construction, prescriptive requirements are given.

Chapter 8 Roof-Ceiling Construction

1. R802 Roof Framing

- Section R802, design and construction of roof framing have been clarified by dividing the content into three separate sections on roof ridges, rafters and ceiling joists.

2. R802.1.5.4 Labeling

- Each stick of fire-retardant-treated lumber and individual wood structural panel will be labeled with eight specific items of information.

3. Tables R802.4, R802.5 Ceiling Joists and Rafters

- Changes to Southern Pine, Douglass Fir-Larch and Hemlock-Fir capacities have changed the maximum spans for lumber in ceiling joists and rafter span tables of the 2015 IRC.

4. R806 Attic Ventilation

- The exception allowing the building official to waive ventilation requirements due to atmospheric or climatic conditions has been deleted.
- The minimum vent area exception is clarified, stating that the net free ventilation may be less than 1/150 only if two required conditions are met. Lower vents must be located in the bottom third of the attic space.

Chapter 9 Roof Assemblies

1. R905.1 Multiple Sections Underlayment

- Multiple code provisions for underlayment have been combined into section R905.1.1 with three tables listing underlayment type, application and attachment. Sections on ice barriers are reorganized and combined in to Section R905.1.2

2. R905.16 Photovoltaic Shingles

- Additional requirements and limits for photovoltaic shingles have been added to Section R905.16.

3. R905.17 Building Integrated Photovoltaic Panels

- New section R905.17 addresses installation and attachment of building-integrated photovoltaic (BIPV) roof panels.

4. R907 Rooftop Mounted Photovoltaic Systems

- This new code provision describes the requirements and limits of rooftop-mounted photovoltaic systems.

Chapters 11-14, 15, 34-43

- Chapters 11 through 14, inclusive, are deleted in their entirety and chapters 16 through 43, inclusive, are deleted in their entirety.
- Chapter 15, Exhaust Systems, is adopted as an alternative to the International Mechanical Code for exhaust systems only. All other requirements for mechanical systems in detached one- or two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories above grade in height, and their accessory structures, shall be found in the latest adopted edition of the International Mechanical Code.
- Subsection 302.2.2, Common walls, delete "Chapters 34 through 43" and replace with "the adopted electrical code in ARM Title 24, chapter 301, subchapter 4."

Appendix

1. Appendix Q: Tiny Houses

- The City is incorporating Appendix Q for Tiny Houses with the adoption.
- [State Amendment] Tiny houses do not meet the building code requirements for commercial or business occupancy and are therefore prohibited for these types of uses. The department will apply Appendix Q to factory-built buildings which meet the definition of a tiny house as having 400 square feet or less in floor area excluding lofts, and which are intended to be mounted on a permanent foundation and used as a single-family dwelling.

2. Appendix S: Strawbale Construction

- The City is incorporating Appendix S: Strawbale Construction in its adoption.
- [State Amendment] The department shall not apply or enforce Appendix S.