

IBC Significant Changes Report

2021 Code Section	2018 Code Section	Title or Subject	Reviewers Comments	Cost (Y/N)	Amend Needed (Y/N)	TAG Comments / Recommendations
Chapter 15—Roof Assemblies and Rooftop Structures						
TAG Member: Chris						
1502.1	1502.1	General	This section provides reference to Chapter 11 of International Plumbing Code.	N	Y	Change the reference with a reference to Uniform Plumbing Code
1502.2	1502.2	Secondary (emergency overflow) drains or scuppers.	This section provides reference to Chapter 11 of International Plumbing Code.	N	Y	Change the reference with a reference to Uniform Plumbing Code
1503.3.1 & 1503.3.2	1503.3	Parapet Walls	Requirements added to clarify coping not to impact rating of fire wall and to provide drainage	N	N	
1504.3.1.3	None	Air permeability testing	Gives default coefficient for tile roofs	N	N	
1504.5	1504.4	Ballasted low-slope single-ply roof systems.	All requirements applicable to the design and construction of ballasted low-slope roofs are now contained in the ANSI/SPRI RP-4 standard.	N	N	
1504.9	None	Wind resistance of aggregate-surfaced roofs.	Requirement for parapet to keep aggregate from blowing around. Unclear how common this roof type is.	Y	N	Past provisions regulating aggregate blow-off from aggregate-surfaced roofs were not based on a quantitative analysis of observed roofing system performances in real wind events. Rather, the requirements were based on variations in surface pressure with building height. Fully revised Section 1504.9 is now based on wind speeds for blowoff and only deals with smaller aggregate used for the surfacing of built-up roofs (BUR) and sprayed polyurethane foam (SPUF) roofs, both of which are different systems than ballasted roofs. Table 1504.9 considers aggregate size, roof height and wind speed to determine the minimum required parapet height.
1507.3.1	1507.3.1	Clay and concrete tile	New exception to solid sheathing requirement in seismic design A-C	Reduced	N	
1509	None	Roof Coatings	New section to list appropriate ASTM standards for various coatings	N	N	
1511.2.2	1510.2.2	Use Limitations	Clarification that penthouses may include spaces used to access elevators	N	N	
Chapter 16—Structural Design						
TAG Member: Sue Coffman						
Table 1604.5	Table 1604.5	Table 1604.5 – Risk Category of Buildings and Other Structures	Mixed occupancy buildings with assembly spaces are now designated as Risk Category III when the total public assembly occupant load is greater than 2,500 people.	N	N	Don't need the existing amendments in this table.

1605	1605	Load combinations	The strength design and allowable stress design load combinations have been deleted while direct reference to Chapter 2 of ASCE 7 has been added. (Sections 1605.1 and 1605.2)	N	N	
1606.2	1606.2	Weight of materials of construction	Modifies the title and the text to specify that Section 1606.2 applies to weight of materials of construction and doesn't include fixed service equipment.	N	N	Historically, the code has not addressed variable content weight in dead loads nor explicitly described certain loads. The weights of vegetative roofs, solar panels and fixed service equipment have been clarified to provide consistency between the IBC and ASCE 7.
1606.3	None	Weight of fixed service equipment	New section addressing weight of fixed service equipment.	N	N	
1606.4	None	Photovoltaic panel systems	New section addressing photovoltaic panel systems.	N	N	
1606.5	None	Vegetative and landscaped roofs	New section addressing vegetative and landscaped roofs.	N	N	
1607.11.4	1607.10.4	Fall arrest, lifeline, and rope descent system anchorages.	Rope descent system anchorage has been added to the section on fall arrest and lifeline anchorage.	Y?	N	
1607.17	None	Fixed ladders	Adds requirements for live loads for fixed and ship's ladders.	N	N	Live loads to be used in the design of ladders have not previously been specified in the IBC; however, Requirements for fixed ladders are now coordinated between the IBC and ASCE 7. Ladder live loads contained in ASCE 7 have been added to the IBC. The addition of live load values provides the necessary load values in the IBC but maintains the accompanying design information within ASCE 7.
1608.2	1608.2	Ground snow loads	The ground snow load map has been updated to provide consistency with ASCE 7-16 snow maps by adding a reference to ASCE 7 snow tables in states with large case study areas.	N	N	
1610.2	None	Uplift loads on floor and foundations	New section. Concrete slabs on ground must now be designed for uplift due to soil expansion and water pressure in areas prone to soil movement or a shallow water table.	Y	N	Section 1610 has not previously addressed uplift loads from hydrostatic pressure or expansive soils. Requirements addressing uplift forces are now to be applied when appropriate and included in the design. The hydrostatic pressure provisions include a required determination of loads based on measuring to the underside of the construction per ASCE 7, Section 3.2.2.
1611.1	1611.1	Design rain loads	Secondary drainage system rain loads have been updated to be consistent with ASCE 7.	?	N	
1612.4	1612.4	Flood hazard documentation	The design of hydrostatic loads on breakaway walls is required when the walls do not meet the requirements of ASCE 24.	?	N	

Chapter 17—Special Inspections and Tests

TAG Member: Sue Coffman

1704.6	1704.6	Structural observations	because the definition of structural observations in the 2018 IBC was considered vague and disconnected from Chapter 17 requirements, a new description in Section 1704.6 provides clearer direction for the structural observer duties. The structural observer is expected to observe, in person, gravity and lateral force resisting systems, connection details and gravity and lateral load paths. The clarification is also intended to address a widespread perception of overlap between special inspections and structural observation.	N	N	
1704.6.1	1704.6.1	Structural observations for structures		N	N	
Table 1705.3	Table 1705.3	Required Special Inspections and Tests of Concrete Construction	Special inspection requirements for precast concrete diaphragm connections have been added to the list of general concrete special inspections and tests.	?	N	
1705.4.1	1705.4.1	Glass unit masonry and masonry veneer in Risk Category IV.	Special inspection of empirically designed masonry in Risk Category IV buildings is no longer required because the masonry standard, TMS 402, Building Code Requirements and Specification for Masonry Structures, does not allow Risk Category IV buildings to be designed following the empirical design method.	N	N	
1705.5.3	None	Mass timber construction	Special inspection requirements have been added to address the anchorage and connection of mass timber structural elements.	Y	N	
1705.2	None	Sealing of mass timber		Y	N	
1705.1	None	Structural Integrity of Deep Foundation Elements.	When installed deep foundation elements appear to be understrength due to quality, location or alignment, an engineering assessment must now be done.	Y	N	
1705.13.7	1705.12.7	Storage racks	Steel storage rack special inspection duties have been clarified with the addition of special inspection tasks.	N	N	
1705.18	1705.17	Fire-resistant penetrations and joints.	The installation of firestops, fire-resistant joint systems and perimeter fire barrier systems in residential-use buildings now requires special inspection in those Group R fire areas having an occupant load exceeding 250.	Y?	N	

Chapter 22—Steel						
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TAG Member: Sue Coffman

Chapter 23—Wood						
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TAG Member: Sue Coffman

Chapter 24—Glass and glazing						
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TAG Member: Chris

2403.3	2403.3	Framing	Changes to how to calculate if glass is firmly supported based on glass edge length	N	N	
2405.2	2405.2	Slope Glazing – Allowable Materials	Clarification that laminated glass and plastic materials do not require screening and are not limited by height restrictions	N	N	

Chapter 25—Gypsum board						
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TAG Member:

2510.6; 2510.6.1; 2510.6.2	2510.6	Water-resistive barriers	Water-resistive barrier requirements for stucco have been divided into two categories based on whether the building is in a dry or moist climate.	N	N	The provisions for stucco have been reorganized by deleting the two exceptions. The exceptions have been replaced by subsections that indicate when an air gap is required by separating the requirements into dry and wet climate provisions. Additionally, a revised format recognizes two methods of compliance to the stucco water-resistive barrier provisions by requiring materials meet
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Appendix F Rodentproofing						
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No changes

Appendix G Flood-Resistant Construction						
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No changes

Appendix H Signs						
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No changes

Appendix I Patio Covers							
No changes							
Appendix J Grading							
No changes							
Appendix L Earthquake Recording							
No changes							
Appendix M Tsunami-Generated D Flood Hazard							
No changes							