



City of Spokane 2015 Building Code Update

City Council Workshop
March 31, 2016

Outline of Presentation

- ▶ **Schedule for Adoption**
- ▶ **What is our Building Code?**
- ▶ **Administering the Building Codes?**
- ▶ **What are some significant model Code updates? (Building/Fire)**
- ▶ **What are some significant State Amended Code updates? (Building/Fire)**
- ▶ **What is being proposed for local amendments? (Building/Fire)**

Schedule

- ▶ State Codes will be in effect on July 1, 2016.
- ▶ Need to complete Plan Commission and City Council review prior to that date with an effective date of July 1, 2016.
 - ▶ *Plan Commission Workshop – 3/9/16 - DONE*
 - ▶ City Council Briefing – 3/31/16
 - ▶ Plan Commission Hearing – 4/13/16
 - ▶ Submit Council Agenda item (tent.) – 5/4/16
 - ▶ City Council Hearing (tent.)– 5/16/16
 - ▶ City Council Vote (last meeting to meet deadline) – 5/23/16

What is our Building Code?

- ▶ The Codes are provided to the Legislature from the State Building Code Council.
- ▶ The International Codes adopted by the State are:
 - ▶ Building Code (IBC) – WAC 51-50
 - ▶ Residential Code (IRC) – WAC 51-51
 - ▶ Mechanical Code (IMC) – WAC 51-52
 - ▶ Fire Code (IFC) – WAC 51-54A
 - ▶ Existing Building Code (IEBC) – WAC 51-50
 - ▶ Energy Code (IECC) – WAC 51-11C and 51-11R
- ▶ The State adopts the Uniform Plumbing Code – WAC 51-56

Administering the Building Codes

- ▶ Local jurisdiction Building & Fire Codes are required to include the minimal provisions adopted by the State (RCW 19.27.031).
- ▶ The state building code required by this chapter shall be enforced by the counties and cities. Any county or city not having a building department shall contract with another county, city, or inspection agency approved by the county or city for enforcement of the state building code within its jurisdictional boundaries. (RCW 19.27.050)
- ▶ Local jurisdictions may amend the State adopted/amended Code – but amendments cannot be less restrictive (RCW 19.27.060).

What are some significant model Code updates?

IBC:

- ▶ In general, most changes were in format and renumbering that do not affect the actual requirements.
- ▶ 304.1 food processing and commercial kitchens (not part of restaurants) less than 2500 sf may be B occupancies instead of F-1.
- ▶ Table 1004.1.2 occupant load factor for M occupancies is now uniform for all floors; in response to current retail usage. Simplifies calculations and reviews.
- ▶ 1104.4 Item 1.4 added: Exception that does not require accessibility for floors less than 3000 sf is not allowed in Government buildings. Accessibility is required even for small areas.
- ▶ 2902.3 public toilet facilities are not required for quick transaction spaces having a public access area of 300 sf or less.
- ▶ Chapter 34 Existing Buildings is deleted- refer to IEBC for code requirements.

What are some significant model Code updates?

IEBC:

- ▶ 406.2,, 702.4, window replacements may require opening control devices to prevent falls from height
- ▶ 406.3, 702.5 window replacements exempt from emergency egress requirements; may use the largest replacement window that would fit into existing opening
- ▶ 410.8.10 in order to provide accessible features, the number of toilet fixtures may be reduced by one
- ▶ 706 a new section on reroofing is added

What are some significant model Code updates?

IRC:

- ▶ R301.2 Wind speed maps use ultimate design wind speed, to match the IBC. This is significant in coastal areas.
- ▶ R315 Carbon monoxide (CO) detectors, when required, must be hard wired with battery backup.
- ▶ R324 a new section is added that addresses solar energy systems
- ▶ R403.1 footing width and thickness is also determined by snow or roof live load. Footing sizes will be increased.
- ▶ R507.5, R507.6, R507.7 deck joist spans, beam sizes, restraint at ends and post sizes are described in tables, separate from interior framing member size/span charts.
- ▶ R802.4, R802.5 ceiling joist / rafter span table has been revised to reflect tested strength of available inventory.

What are some significant State Amended Building Code updates?

IBC

- ▶ 306.2 Marijuana processing and growing of more than 15 plants is classified as an F-1 occupancy
- ▶ 310.4 removes assisted living and residential treatment facilities from R-2 classification
- ▶ 427.1 electric vehicle charging is required for new construction of type B, R-1 and R-2
- ▶ 2902.2 separate toilet facilities are not required for drinking/dining facilities when the occupant load is 30 or fewer
- ▶ 3002.4 elevator cars must accommodate stretchers in R-1, R-2 and I occupancies regardless of the number of stories served

IRC

- ▶ Lodging homes not required to have fire sprinklers with 1-2 bedrooms
- ▶ R325, R328 sections are added that address adult family homes and mezzanines

What are some significant Energy Code updates?

- * **Mandated to reduce building energy consumption 70 percent over 25 years**
- ▶ R403.7.1 ductless mini-split heat pumps required when using electric heat over 2kW resistance
- ▶ R406.2 requires additional credits from a menu of energy saving options.
- ▶ C403.2.6.1 Dedicated Outdoor Air Systems (DOAS). Alt mechanical system to deliver outside air without using the heating/cooling system, effective in 2017
- ▶ C405.14 Controlled Receptacles: sensor turns off 50% of the receptacles not designated for 24 hour use
- ▶ C405.4.2 reduces interior lighting power allowances
- ▶ C406 commercial buildings required to comply with at least 2 additional energy efficiency packages

What is being proposed for local Building Code amendments?

Adoption of 2015 codes:

- ▶ 17F.030.010 Boiler and Pressure Vessel Code
- ▶ 17F.040.010 Building Code
- ▶ 17F.080.010 Fire Code
- ▶ 17F.090.010 Mechanical Code
- ▶ 17F.100.010 Plumbing Code

What is being proposed for local Building Code amendments?

Correction of references of previous codes

- ▶ I7F.020.080 code reference updated
- ▶ I7F.030.010 code references updated
- ▶ I7F.040.010 code references updated, deletes duplicate language
- ▶ I7F.040.030 code references updated
- ▶ I7F.040.040 deletes sections that allow code waivers; not allowed under adopted codes
- ▶ I7F.040.070 duplicates adopted codes; delete section
- ▶ I7F.040.105 updated design criteria for wind and seismic
- ▶ I7F.040.125 duplicates adopted codes; delete section
- ▶ I7F.040.130 code references updated
- ▶ I7F.070.010 code references updated
- ▶ I7F.070.070 duplicates adopted codes; delete section
- ▶ I7F.070.250 code references updated
- ▶ I7F.070.260 code references updated
- ▶ I7F.070.270 duplicates adopted codes; delete section
- ▶ I7F.070.300 code reference updated
- ▶ I7F.070.360 duplicates adopted codes; delete section
- ▶ I7F.090.010 code references updated, deletes duplicate language
- ▶ I7F.100.010 code references updated, deletes duplicate language

What are some significant Model Code and State Amended updates?

Fire Code

- ▶ 105.7.9 Gates and barricades across fire apparatus access roads
 - ▶ Requires a construction permit for approval.
- ▶ 105.6.4.9 Marijuana Extraction Systems
 - ▶ Operational permit.
- ▶ 105.7.19 Marijuana Extraction Systems
 - ▶ Construction permit.
- ▶ 308.1.10 Decorative Open Flame Tables
 - ▶ Requires Fire Official approved method to protect occupants from using or exposure to flame.

What are some significant State Amended updates?

Fire Code

- ▶ 903.2.1 Group A
 - ▶ Sprinklers shall be provided throughout the story and all stories to, and including, the levels of exit discharge.
- ▶ 903.2.1.6 Group A occupancies on roofs
 - ▶ Requires the entire building to be sprinkled.
- ▶ 903.2.1.7 Multiple fire areas
 - ▶ When the combined occupant load using a single egress component exceeds 300 sprinklers would be required.
- ▶ 904.11 Automatic mist systems
 - ▶ Recognized as an alternative method (per its listing).

What are some significant State Amended updates?

Fire Code

- ▶ 904.12 Commercial cooking system
 - ▶ Requires signage with type, size and arrangement of cooking appliances under each Class I hood.
- ▶ 1103.4.1 Group I-2 and I-3 occupancies
 - ▶ Requires 1-hour fire separation in existing hospitals and jails to protect openings connecting 2 or more stories.
- ▶ 1103.4.3 More than five stories
 - ▶ Vertical protection has been clarified that not only fire separation is required, but smoke as well.
- ▶ 3105 Temporary Stage Canopies
 - ▶ Permit is required for construction requiring construction documents, designation of responsible party, and an operations plan.

What are some significant State Amended updates?

Fire Code

- ▶ Chapter 38 - New Chapter addressing the requirements for potential hazardous processes or environments for this industry (State Emergency Rule).
 - ▶ Extraction – using flammable gases or liquids, high pressures
 - ▶ CO2 padding for growing facilities
- ▶ Requirements include:
 - ▶ Specific reports and analysis for equipment that is not Listed by approved agencies (UL, ETL, etc.)
 - ▶ Gas detection
 - ▶ Construction and separation

What are some significant State Amended updates?

Fire Code – Appendices

- ▶ New Table B105.1(1) Fire-flow for One- and Two-Family Dwellings, Group R-3 and Group R-4 Buildings and Townhomes
 - ▶ Places fire-flow requirements and allowed reductions in an easy-to-read table.
- ▶ Table B105.2 Fire-flow for Buildings Other Than One- and Two-Family Dwellings, Group R-3 and Group R-4 Buildings and Townhomes
 - ▶ New reductions give more credit for sprinkler systems and clarifies reductions for NFPA 13 vs NFPA 13R sprinkler systems.
- ▶ New B105.3 Water Supply for Buildings with an Automatic Sprinkler system
 - ▶ Clarifies site water requirements as the greater of either sprinkler + hose demand OR required fire flow (not cumulative).

What are some significant State Amended updates?

Fire Code – Appendices

- ▶ Section C103 Fire Hydrant Spacing
 - ▶ Exception is changed to permit increase in spacing of up to 10% without approval of the Fire Dept. where existing hydrants exist (locations already established and will not be allowed to be relocated)
- ▶ C104.1 Existing Fire Hydrants
 - ▶ Guidelines for existing fire hydrants in adjacent properties to be allowed for site fire flow of adjacent buildings.

What is being proposed for local Fire Code amendments?

- ▶ 17F.080.010 Adoption of International Fire Code
 - ▶ A – Changed the adopted version from 2012 to 2015
 - ▶ B.7 and B.8 – Revised reference
 - ▶ B.10 – Added clarification of the intent of the amendment is not to replace the paragraph, but to add to it.
 - ▶ B.12, B13, and B14 – Revised reference
 - ▶ B.13 – Removed first part of amended sentence to accommodate change to model language
 - ▶ B15, B.16, B17, B18 – Revised reference

What is being proposed for local Fire Code amendments?

- ▶ 17F.080.030 Appendices Adopted
- ▶ Appendix B
 - ▶ Deleted amendment as model code is less restrictive
- ▶ Appendix C
 - ▶ Revised Table numbers to match model code changes
 - ▶ Remove the sentence in C.1 for maximum distance of 750 feet as the model code now has this language.
 - ▶ Removed the model code reference for footnote g as our current allowance is less restrictive
- ▶ SMC 17F.080.070. Flammable or Combustible Liquids:
 - ▶ The referenced section number changed in the model code.
- ▶ SMC 17F.080.090. Additional Definitions
 - ▶ Section 202: Remove definition of “guest room”. The definition is now in the model code.

What is being proposed for local Fire Code amendments?

- ▶ SMC 17F.080.110. Fire Alarm System Requirements:
 - ▶ Revisions to Chart 907:
 - ▶ Changes made to the table to match the State WAC for fire alarm.
 - ▶ B.2 has been revised as the description of the travel distance was not the same as in the model code.
 - ▶ SMC 17F.080.150. Installation Requirements:
 - ▶ Change reference of Chapter 47 to 80.
 - ▶ SMC 17F.080.270. Fire Equipment Servicer Registration:
 - ▶ Added "Private Fire Hydrants". Contractors conducting testing for private fire hydrants are required to be registered with the Fire Department. It was recently discovered that this was not codified.
 - ▶ SMC 17F.080.321. Fire Hydrant Proximity to Residential Infill Properties:
 - ▶ Section is repealed. The language of the ordinance is now included in the model code.
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What is being proposed for local Fire Code amendments?

- ▶ SMC 17F.080.370, 380, 390:
 - ▶ Revised reference to title of the Director of Water and Wastewater.
- ▶ SMC 17F.080.400. Inspection Reports of Private Hydrants:
 - ▶ Revised language for responsibility of hydrant report submission. The owner is responsible for verifying that the reports are submitted.
- ▶ SMC 17F.080.480. Combined Standpipes:
 - ▶ Revised language further clarifying the threshold for when fire pumps would be required for buildings. The original language refers to the threshold at 5 floors. The distance of 55 feet is now included as the maximum height.
- ▶ SMC 17F.080.490. Licensed Marijuana Processor Extraction Requirements:
 - ▶ Revise the title to better match the industry name and revised language in paragraph B to accommodate changes to the cannabis industry.

Are the Codes Available to the Public?

- ▶ Code Update Blog:
 - ▶ <https://my.spokanecity.org/news/stories/2016/03/07/building-and-fire-codes-going-through-update-process/>
- ▶ International Codes: Read-Only, Free access
 - ▶ <http://codes.iccsafe.org/I-Codes.html#all>
- ▶ Uniform Code: Read-Only, Free access
 - ▶ <http://epubs.iapmo.org/UPC/>
- ▶ Washington State Amendments
 - ▶ Look under Proposed rules:
 - ▶ <https://fortress.wa.gov/ga/apps/sbcc/Page.aspx?nid=222>
- ▶ Spokane Municipal Code 17F
 - ▶ <https://my.spokanecity.org/smc/?Title=17F>

2015 Adoption of Building Codes

Questions?