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Executive Summary

2017 Pikes Peak Regional Building Code Revisions

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This document serves as an executive summary of the proposed changes to the 2011 Pikes Peak Regional Building Code (further cited as "PPRBC"). The intent of these modifications is to simplify the construction process, take advantage of new code developments as well as comply with State of Colorado requirements. Please refer to the 2017 PPRBC "Draft" for additional information. This document summarizes the changes to the PPRBC and does not address changes to the 2017 International Codes adopted by reference.

Section RBC303 – RESIDENTIAL BUILDING CODE

RBC303.3 CODE ADOPTED BY REFERENCE. This section has been modified to adopt the 2015 International Residential Code (IRC). The International Code Council (ICC) publishes new codes every three years. Currently, we are under the 2009 I Codes. Further, this section has been updated to reflect the deletion of additional appendices in the 2015 IRC.

RBC303.4.2 Climatic and geographic design criteria. This section sets the design criteria for the region and has been updated to match the 2015 IRC. The IRC requires the local jurisdiction to complete this table. Several editorial changes have been made to reduce confusion with design professional and builders as well as be consistent with referenced standards.

The design wind speed has increased from 100 mph to 130 mph but this change is not as drastic as it appears. While this appears to be a significant increase in wind speed it's only a change in how the loads on the structure are calculated. Evidence of this can be found in Table R301.2.1.3 of the 2015 IRC which converts the Ultimate Wind Speed (V_{ult}) of 130mph to a 101mph Nominal Wind Speed (V_{asd}). Currently, the PPRBC establishes a Nominal Wind Speed (V_{asd}) of 100mph. This change will not have a significant impact on the design or construction of structures regulated under the IRC.

RBC303.4.3 (DELETE) Minimum uniformly distributed live loads. This amendment has been removed. Most builders are following un-amended IRC and this amendment is no longer necessary. Additional live loads at attic are not required to act concurrently with other loads.

RBC303.4.3 Exposure category. This section addresses design criteria used in wind loading calculations. An amendment has been added to properly delete "Exposure B" from the IRC. The same amendment occurred with the 2009 IRC but was done in a different manner.

RBC303.4.5 (DELETE) Townhouses. Under the current code this amendment provides an alternative to fire sprinklers in townhomes. This was necessary with the 2009 IRC as all Townhomes required a fire sprinkler. This amendment is no longer needed as the 2015 IRC now matches our previous code. Consistent with the current code, Townhomes of four units or less do not require a fire sprinkler system.

RBC303.4.5 Townhouses. When fire sprinklers are required in a townhome this amendment directs the user to the proper design criteria as Chapter 29 of the IRC is not adopted. This does not change the design criteria as Section P2904 allows a NFPA 13D system as an alternate.

RBC303.4.6 (DELETE) Structural Independence. This amendment is no longer needed as it has been added to the body of the 2015 IRC.

RBC303.4.6 Dwelling / garage fire separation. Editorial changes have been made to table R302.6 to result in a more consistent application of the code.

RBC303.4.8 (DELETE) Minimum height. This amendment is no longer needed as the 2015 IRC now allows for reduced soffit heights of 6'-4" in basements.

RBC303.4.9 Emergency escape and rescue required. This section addresses additional egress openings required in unfinished basements. Editorial changes have been made to clarify the intent and simplify the application. No technical changes have been made.

RBC303.4.10 Minimum opening area. A new exception has been added for egress windows in home constructed prior to adoption of the current code. The previous code (2005 PPRBC) allowed for a reduced egress window size, similar to the egress well size. There are a number of homes built with complaint windows and wells (at that time). Due to code changes after the home was built these elements are no longer complaint. This amendment allows for older, existing windows to remain when a basement is finished, etc. This amendment has been a policy on the RBD website since 2012 and should have been included in the current amendments but was missed.

RBC303.4.13 Drainage. The 2015 IRC adds new criteria to require drains in window wells. Due to varying soil types not all homes require a foundation drain. This amendment has been added to only require a window well drain when a foundation drain is required by the soils test.

RBC303.4.18 Window fall protection. This amendment is part of the current code but has been revised to reflect the 2015 IRC. The fall protection requirement conflicts with the intent of emergency escape openings. These devices require "special knowledge" and are located above the reach range of children. The result is a window that a child cannot escape through in the event of an emergency. This amendment has been moved from section R612.2 in the 2009 IRC and is not new.

RBC303.4.18 One- and two-family dwellings automatic fire systems. Consistent with the current code, one and two family dwelling are not required to have a fire sprinkler system. No changes are proposed.

RBC303.4.21 Alterations and repairs. The current code requires Carbon Monoxide Detectors

be installed in the proper locations when alterations occur inside a dwelling. 2015 IRC includes language from the current amendments to exclude exterior work but adds an additional exception to exclude installation and repair of plumbing and mechanical systems which is contrary to the intent and purpose of the code. Without the proposed amendment the 2015 IRC would allow a furnace or water heater replacement and associated vent modifications without the requirement for a CO detector but would require one for electrical modifications. The proposed amendment is consistent with current requirements and does not result in a technical change.

RBC303.4.29 General. The 2015 IRC requires private pools and spas to comply with the 2015 International Swimming Pool and Spa Code. This code has not been fully vetted on a national level and is overly restrictive. The proposed amendment removes this reference and directs the user to the current requirements in our local code.

RBC303.4.33 Frost protection. Exception 2 to the requirement for frost protection has been modified to allow for construction of a ramp or stair to be supported on grade. Stairs and ramps “hinge” off the structure and frost protection is not necessary but technically required under the current code.

RBC303.4.35 (DELETE) Concrete and masonry foundation walls. Current code amendments contain specific criteria for foundation walls that step (garden level to full height, etc.). This amendment is not necessary and has been removed as the entire foundation system is required to be designed by a licensed engineer.

RBC303.4.35 Design required. A new section has been added to 2015 IRC that excludes certain foundation wall elements from acceptable engineering practice. This criterion is not consistent with current and proposed requirements for the foundation system to be designed by a licensed engineer.

RBC303.4.40 (DELETE) Unvented crawl space, Item 1. Currently the PPRBC does not require a vapor retarder in an unvented crawl space to be sealed and taped. This amendment is contrary to energy code requirements and has the potential to increase humidity in an unvented environment. The majority of builders are following the un-amended code and this amendment is no longer necessary.

RBC303.4.42 Base. Minor editorial changes have to made to this section to clarify the intent. As the IRC is prescriptive in nature this amendment clarifies that a base course under a concrete slab is required per the soils test.

RBC303.4.44 Deck ledger connection to band joist. The 2015 IRC contains specific requirements for deck construction including a lateral load connection. It has been determined that these requirements are not necessary in our jurisdiction. The methods used to construct a deck vary widely by region and the remainder of the IRC deck requirements don’t reflect local construction methods. Section R507.2 has been removed and replaced with local requirements that mirror current code requirements.

RBC303.4.45 Deck ledger connection to band joist. Table R507.2 address how a deck is attached to the structure. This table is unchanged from the 2011 Pikes Peak Regional Building Code but footnotes have been revised to reflect fastener spacing requirements in the IRC. A footnote has also been added to address ledger connections to stone and masonry veneer.

RBC303.4.48 Stud size, height and spacing. The 2015 IRC has new criteria for walls in excess of 10 feet in height. The amendment to this section has been to address this criterion and permit a wall in excess of 10 feet under certain conditions. Without this amendment all walls in

excess of 10' in height would require engineering. This amendment will allow bearing walls with a tributary roof load of up to 6 feet to exceed 10 feet under prescriptive requirements.

RBC303.4.50 Interior nonbearing walls on slab. This amendment reflects a long standing RBD policy of the requirement for floating walls on non-structural slabs (basement walls). Previous versions of the PPRBC have not addressed this requirement but it has been required for well over 15 years. While the amendment is new, this code modification has no technical change.

RBC303.4.56 Vapor retarders. This section moved from R601.3 in the 2009 IRC to R702.7 in the 2015 IRC; the amendment has been maintained but moved to reflect the 2015 IRC revisions. No technical change.

RBC303.4.58 (DELETE) Lateral support. This section of the 2011 PPRBC addresses a requirement for lateral support of roof truss systems with a bearing depth exceeding 8 inches. It has been determined that this amendment is no longer necessary as the truss system is engineered and designed in accordance with the IRC and referenced standards.

RBC303.4.60 (DELETE) Penetrations. This section of the 2011 PPRBC specifies that roof penetrations shall not be located within 18 inches of a valley. This amendment is not necessary; if the penetration is flashed in accordance with the IRC it may be located anywhere on the roof.

RBC303.4.61 (DELETE) Overflow drains and scuppers. This section of the 2011 PPRBC addresses criteria for overflow drains and scuppers. The 2015 IRC directs the user to the International Plumbing Code (adopted at State level) and therefore this amendment is no longer necessary.

RBC303.4.62 (DELETE) Valleys. This section of the 2011 PPRBC reduced the required width for flashing at a roof valley to 20 inches. Flashing metal, when used, is not available in a 20-inch width. The 2015 IRC requires a minimum of 24 inches. This amendment is no longer necessary.

RBC303.4.63 (DELETE) Other flashing. This section of the 2011 PPRBC allows for "other approved methods" of flashing. A roof should be flashed in accordance with the IRC and the roofing manufacturer's specifications in order for warranties to apply. This amendment has been removed.

RBC303.4.65 (DELETE) Application. This section of the 2011 PPRBC specifies that tile roofs must be installed in accordance with RTI/WSRCA standards. Similar to the flashing requirement above, roof tile should be installed in accordance with the 2015 IRC, referenced standards, and tile manufacturer in order for warranties to apply. This amendment has been removed.

RBC303.4.63 Roof replacement. This is a new amendment. The 2015 IRC reverts back to previous codes (prior to the 2009 IRC) and allows for multiple layers of roofing when a re-roof occurs. This was changed in the 2009 IRC to address damage from hail; a soft roof with multiple layers is more susceptible to hail damage than a roof with only a single layer. This amendment, along with the removal of Sections R908.3.1 (and R908.3.1.1) results in no change from the 2009 IRC as currently adopted to the 2015 IRC. The industry has adjusted to the requirements of the 2009 IRC. With the high risk of hail and associated damage in this region, following the provisions of the 2015 IRC would be a step backward.

RBC303.4.66 Permitted uses. Minor editorial changes have been made to the section; specific criteria should not be associated with definitions as has been done in previous versions of the PPRBC. There is no technical change to this amendment.

