

-IRC, Section R102, a new Section R102.7.2 is added as follows:

"R102.7.2 Physical change for bedroom window egress. A structure whose egress window in an existing bedroom is smaller than required by this code, and that complied with the construction code in effect at the time that the bedroom was finished, is not required to undergo a physical change to conform to this code if the change would compromise the structural integrity of the structure or could not be completed in accordance with other applicable requirements of this code, including setback and window well requirements."

- IRC, Section 109:

(a) A new IRC, Section 109.1.5, is added as follows: "R109.1.5 Weather-resistant exterior wall envelope inspections. An inspection shall be made of the weather-resistant exterior wall envelope as required by Section R703.1 and flashings as required by Section R703.8 to prevent water from entering the weather-resistive barrier."

(b) The remaining sections are renumbered as follows: R109.1.6 Other inspections; R109.1.6.1 Fire- and smoke-resistance-rated construction inspection; R109.1.6.2 Reinforced masonry, insulating concrete form (ICF) and conventionally formed concrete wall inspection; and R109.1.7 Final inspection.

-IRC, Section R114.1, is deleted and replaced with the following:

"R114.1 Notice to owner. Upon notice from the building official that work on any building or structure is being prosecuted contrary to the provisions of this code or other pertinent laws or ordinances or in an unsafe and dangerous manner, such work shall be immediately stopped. The stop work order shall be in writing and shall be given to the owner of the property involved, or to the owner's agent or to the person doing the work; and shall state the conditions under which work will be permitted to resume."

-In IRC, Section R202, the following definition is added:

"CERTIFIED BACKFLOW PREVENTER ASSEMBLY TESTER: A person who has shown competence to test Backflow prevention assemblies to the satisfaction of the authority having jurisdiction under Utah Code, Subsection [19-4-104\(4\)](#)."

-In IRC, Section R202, the definition for "CONDITIONED SPACE" is modified by deleting the words at the end of the sentence "being heated or cooled by any equipment or appliance" and replacing them with the following:

"enclosed within the building thermal envelope that is directly heated or cooled, or indirectly heated or cooled by any of the following means:

1. Openings directly into an adjacent conditioned space.
2. An un-insulated floor, ceiling or wall adjacent to a conditioned space.
3. Un-insulated duct, piping or other heat or cooling source within the space."

-In IRC, Section R202, the definition of "Cross Connection" is deleted and replaced with the following:

"CROSS CONNECTION. Any physical connection or potential connection or arrangement between two otherwise separate piping systems, one of which contains potable water and the other either water of unknown or questionable safety or steam, gas, or chemical, whereby there

exists the possibility for flow from one system to the other, with the direction of flow depending on the pressure differential between the two systems (see "Backflow, Water Distribution")."

- In IRC, Section 202, in the definition for gray water a comma is inserted after the word "washers"; the word "and" is deleted; and the following is added to the end: "and clear water wastes which have a pH of 6.0 to 9.0; are non-flammable; non-combustible; without objectionable odors; non-highly pigmented; and will not interfere with the operation of the sewer treatment facility."

-In IRC, Section R202, the definition of "Potable Water" is deleted and replaced with the following:

"POTABLE WATER. Water free from impurities present in amounts sufficient to cause disease or harmful physiological effects and conforming to the Utah Code, Title 19, [Chapters] Chapter 4, Safe Drinking Water Act, and Title 19, Chapter 5, Water Quality Act, and the regulations of the public health authority having jurisdiction."

- IRC, Figure R301.2(5), is deleted and replaced with Table R301.2(5a) and Table R301.2(5b) as follows:

"TABLE NO. R301.2(5a)			
STATE OF UTAH - REGIONAL SNOW LOAD FACTORS			
COUNTY	Po	S	Ao
Beaver	43	63	6.2
Box Elder	43	63	5.2
Cache	50	63	4.5
Carbon	43	63	5.2
Daggett	43	63	6.5
Davis	43	63	4.5
Duchesne	43	63	6.5

Emery	43	63	6.0
Garfield	43	63	6.0
Grand	36	63	6.5
Iron	43	63	5.8
Juab	43	63	5.2
Kane	36	63	5.7
Millard	43	63	5.3
Morgan	57	63	4.5
Piute	43	63	6.2
Rich	57	63	4.1
Salt Lake	43	63	4.5
San Juan	43	63	6.5
Sanpete	43	63	5.2
Sevier	43	63	6.0
Summit	86	63	5.0
Tooele	43	63	4.5
Uintah	43	63	7.0
Utah	43	63	4.5
Wasatch	86	63	5.0

Washington	29	63	6.0
Wayne	36	63	6.5
Weber	43	63	4.5

TABLE NO. R301.2(5b)				
REQUIRED SNOW LOADS FOR SELECTED UTAH CITIES AND TOWNS ^{1,2}				
The following jurisdictions require design snow load values that differ from the Equation in the Utah Snow Load Study.				
County	City	Elevation	Ground Snow Load (psf)	Roof Snow Load (psf) ⁶
Carbon	Price ³	5550	43	30
	All other county locations ⁵	--	--	--
Davis	Fruit Heights ³	4500 - 4850	57	40
Emery	Green River ³	4070	36	25
Garfield	Panguitch ³	6600	43	30
Rich	Woodruff ³	6315	57	40
	Laketown ⁴	6000	57	40
	Garden City ⁵	--	--	--
	Randolph ⁴	6300	57	40
San Juan	Monticello ³	6820	50	35
Summit	Coalville ³	5600	86	60
	Kamas ⁴	6500	114	80
Tooele	Tooele ³	5100	43	30

Utah	Orem ³ Pleasant Grove ⁴ Provo ⁵	4650 5000 --	43 43 --	30 30 --
Wasatch	Heber ⁵	--	--	--
Washington	Leeds ³ Santa Clara ³ St. George ³ All other county locations ⁵	3460 2850 2750 --	29 21 21 --	20 15 15 --
Wayne	Loa ³	7080	43	30
1The IRC requires a minimum live load -- See R301.6.				
2This table is informational only in that actual site elevations may vary. Table is only valid if site elevation is within 100 feet of the listed elevation. Otherwise, contact the local Building Official.				
3Values adopted from Table VII of the Utah Snow Load Study				
4Values based on site-specific study. Contact local Building Official for additional information.				
5Contact local Building Official.				
6Based on Ce =1.0, Ct =1.0 and Is =1.0"				

- IRC, Section R301.6, is deleted and replaced with the following:

"R301.6 Utah Snow Loads. The snow loads specified in Table R301.2(5b) shall be used for the jurisdictions identified in that table. Otherwise, the ground snow load, P_g , to be used in the determination of design snow loads for buildings and other structures shall be determined by using the following formula: $P_g = (P_o^2 + S^2(A-A_o)^2)^{0.5}$ for A greater than A_o , and $P_g = P_o$ for A less than or equal to A_o . WHERE: P_g = Ground snow load at a given elevation (psf); P_o = Base ground snow load (psf) from Table No. R301.2(5a); S = Change in ground snow load with elevation (psf/100 ft.) From Table No. R301.2(5a); A = Elevation above sea level at the site (ft./1,000); A_o = Base ground snow elevation from Table R301.2(5a) (ft./1,000). The building official may round the roof snow load to the nearest 5 psf. The ground snow load, P_g , may be adjusted by the building official when a licensed engineer or architect submits data substantiating the adjustments. Where the minimum roof live load in accordance with Table

R301.6 is greater than the design roof snow load, such roof live load shall be used for design, however, it shall not be reduced to a load lower than the design roof snow load. Drifting need not be considered for roof snow loads less than 20 psf."

-In IRC, Section R302.5.1, the words "self-closing device" are deleted and replaced with "self-latching hardware"

-IRC, Section R302.13, is deleted

- In IRC, Section R303.4, the number "5" is changed to "3" in the first sentence.

-IRC, Sections R311.7.4 through R311.7.5.3, are deleted and replaced with the following:
"R311.7.4 Stair treads and risers. R311.7.5.1 Riser height. The maximum riser height shall be 8 inches (203 mm). The riser shall be measured vertically between leading edges of the adjacent treads. The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm). R311.7.5.2 Tread depth. The minimum tread depth shall be 9 inches (228 mm). The tread depth shall be measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge. The greatest tread depth within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm). Winder treads shall have a minimum tread depth of 10 inches (254 mm) measured as above at a point 12 inches (305 mm) from the side where the treads are narrower. Winder treads shall have a minimum tread depth of 6 inches (152 mm) at any point. Within any flight of stairs, the greatest winder tread depth at the 12-inch (305 mm) walk line shall not exceed the smallest by more than 3/8 inch (9.5 mm). R311.7.5.3 Profile. The radius of curvature at the leading edge of the tread shall be no greater than 9/16 inch (14.3 mm). A nosing not less than 3/4 inch (19 mm) but not more than 1 1/4 inches (32 mm) shall be provided on stairways with solid risers. The greatest nosing projection shall not exceed the smallest nosing projection by more than 3/8 inch (9.5 mm) between two stories, including the nosing at the level of floors and landings. Beveling of nosing shall not exceed 1/2 inch (12.7 mm). Risers shall be vertical or sloped from the underside of the leading edge of the tread above at an angle not more than 30 degrees (0.51 rad) from the vertical. Open risers are permitted, provided that the opening between treads does not permit the passage of a 4-inch diameter (102 mm) sphere.
Exceptions.

1. A nosing is not required where the tread depth is a minimum of 10 inches (254 mm).
2. The opening between adjacent treads is not limited on stairs with a total rise of 30 inches (762 mm) or less."

- IRC, Section R312.2, is deleted.

- IRC, Sections R313.1 through R313.2.1, are deleted and replaced with the following:
"R313.1 Design and installation. When installed, automatic residential fire sprinkler systems for townhouses or one- and two-family dwellings shall be designed and installed in accordance with Section P2904 or NFPA 13D."

-In IRC, Section 315.3, the following words are added to the first sentence after the word "installed": "on each level of the dwelling unit and".

-In IRC, Section R315.5, a new exception, 3, is added as follows:

3. Hard wiring of carbon monoxide alarms in existing areas shall not be required where the alterations or repairs do not result in the removal of interior wall or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available which could provide access for hard wiring, without the removal of interior finishes."

- A new IRC, Section [R315.6] R315.7, is added as follows:

"[R315.6] R315.7 Interconnection. Where more than one carbon monoxide alarm is required to be installed within an individual dwelling unit in accordance with Section R315.1, the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual unit. Physical interconnection of smoke alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm.

Exception: Interconnection of carbon monoxide alarms in existing areas shall not be required where alterations or repairs do not result in removal of interior wall or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available which could provide access for interconnection without the removal of interior finishes."

-In IRC, Section R403.1.6, a new Exception [4] 3 is added as follows:

"[4] 3. When anchor bolt spacing does not exceed 32 inches (813 mm) apart, anchor bolts may be placed with a minimum of two bolts per plate section located not less than 4 inches (102 mm) from each end of each plate section at interior bearing walls, interior braced wall lines, and at all exterior walls."

- In IRC, Section R403.1.6.1, a new exception is added at the end of Item 2 and Item 3 as follows:

"Exception: When anchor bolt spacing does not exceed 32 inches (816mm) apart, anchor bolts may be placed with a minimum of two bolts per plate section located not less than 4 inches (102 mm) from each end of each plate section at interior bearing walls, interior braced wall lines, and at all exterior walls."

-In IRC, Section R404.1, a new exception is added as follows:

"Exception: As an alternative to complying with Sections R404.1 through R404.1.5.3, concrete and masonry foundation walls may be designed in accordance with IBC Sections 1807.1.5 and 1807.1.6 as amended in Section 1807.1.6.4 and Table 1807.1.6.4 under these rules."

-In IRC, Section N1101.5 (R103.2), all words after the words "herein governed." are deleted and replaced with the following: "Construction documents include all documentation required to be submitted in order to issue a building permit."

-In IRC, Section N1101.12 (R303.3), all wording after the first sentence is deleted.

-In IRC, Section N1101.13 (R401.2), add Exception as follows:

"Exception: A project complies if the project demonstrates compliance, using the software RESCheck 2012 Utah Energy Conservation Code, of:

- (a) on or after January 1, 2017, and before January 1, 2019, "3 percent better than code";
- (b) on or after January 1, 2019, and before January 1, 2021, "4 percent better than code"; and
- (c) after January 1, 2021, "5 percent better than code".

- In IRC, Table N1102.2 (R402.1.2), in the column titled MASS WALL R-VALUE, a new footnote j is added as follows:

"j. Log walls complying with ICC400 and with a minimum average wall thickness of 5 inches or greater shall be permitted in Zones 5 through 8 when overall window glazing has a .31 U-factor or lower, minimum heating equipment efficiency is 90 AFUE (gas) or 84 AFUE (oil) and all other component requirements are met."

-In IRC, Section N1102.4.1.1 (R402.4.1.1), the last sentence is deleted and replaced with the following:

"Where allowed by the code official, the builder may certify compliance to components criteria for items which may not be inspected during regularly scheduled inspections."

-In IRC, Section N1102.4.1.2 (R402.4.1.2), the following changes are made:

(a) In the first sentence: (i) on or after January 1, 2019, and before January 1, 2021, replace the word "five" with "3.5"; and (ii) after January 1, 2021, replace the word "five" with "three." [(a)] (b)
In the first sentence, the words "in Climate Zones 1 and 2, and [3] three air changes per hour in [Zone] Climate Zones 3 through 8" are deleted. [(b)] (c) In the third sentence, [the words "Where required by the building official,"and] the word "third" [are] is deleted. [(c)] (d) The following sentence is inserted after the third sentence: "The following parties shall be approved to conduct testing: Parties certified by BPI or RESNET, or licensed contractors who have completed training provided by Blower Door Test equipment manufacturers or other comparable training."

-In IRC, Section N1103.3.3 (R403.3.3):

(a) the exception for [total] duct air leakage testing is deleted; and (b) the exception for duct air leakage is replaced: (i) on or after January 1, 2017, and before January 1, 2019, with the following:"Exception: The [total] duct air leakage test is not required for systems with all air handlers and at least [50%] 65% of all ducts (measured by length) located entirely within the building thermal envelope.";

(ii) on or after January 1, 2019, and before January 1, 2021, with the following: "Exception: The duct air leakage test is not required for systems with all air handlers and a least 75% of all ducts (measured by length) located entirely within the building thermal envelope."; and

(iii) on or after January 1, 2021, with the following: "Exception: The duct air leakage test is not required for systems with all air handlers and at least 80% of all ducts (measured by length) located entirely within the building thermal envelope." In IRC, Section N1103.3.3 (R403.3.3), the following is added after the exception: "The following parties shall be approved to conduct testing: Parties certified by BPI or RESNET, or licensed contractors who have completed either training provided by Duct Test equipment manufacturers or other comparable training."

-In IRC, Section N1103.3.4 (R403.3.4):

(a) in Subsection 1, the number 4 is changed to 8, the number 113.3 is changed to 170, the number 3 is changed to 6, the number 85 is changed to 114.6; and

(b) in Subsection 2: (i) on or after January 1, 2017, and before January 1, 2019, the number 4 is changed to 8 and the number 113.3 is changed to 226.5; (ii) on or after January 1, 2019, and before January 1, 2021, the number 4 is changed to 7 and the number 113.3 is changed to 198.2; and (iii) on or after January 1, 2021, the number 4 is changed to 6 and the number 113.3 is changed to 169.9.

-In IRC, Section N1103.3.5 (R403.3.5), the words "or plenums" are deleted.

- In IRC, Section N1103.5.3 (R403.5.3), Subsection 5 is deleted and Subsections 6 and 7 are renumbered.

-In IRC, Section N1106.4 (R406.4), the table is deleted and replaced with the 1570 following:

<u>1571</u> <u>TABLE N1106.4 (R406.4)</u>	
1572 <u>MAXIMUM ENERGY RATING INDEX</u>	
<u>1573</u> <u>CLIMATE ZONE</u>	<u>ENERGY RATING INDEX</u>
<u>1574</u> 3	<u>65</u>
<u>1575</u> 5	<u>69</u>
<u>1576</u> 6	<u>68</u>

-IRC, Section M1411.8, is deleted.

-A new IRC, Section G2401.2, is added as follows: "G2401.2 Meter Protection. Fuel gas services shall be in an approved location and/or provided with structures designed to protect the fuel gas meter and surrounding piping from physical damage, including falling, moving, or

migrating ice and snow. If an added structure is used, it must provide access for service and comply with the IBC or the IRC."

-A new IRC, Section P2602.3, is added as follows:

"P2602.3 Individual water supply. Where a potable public water supply is not available, individual sources of potable water supply shall be utilized, provided that the source has been developed in accordance with Utah Code, Sections [73-3-1](#) and [73-3-25](#), as administered by the Department of Natural Resources, Division of Water Rights. In addition, the quality of the water shall be approved by the local health department having jurisdiction."

-A new IRC, Section P2602.4, is added as follows:

"P2602.4 Sewer required. Every building in which plumbing fixtures are installed and all premises having drainage piping shall be connected to a public sewer where the sewer is accessible and is within 300 feet of the property line in accordance with Utah Code, Section [10-8-38](#); or an approved private sewage disposal system in accordance with Utah Administrative Code, Chapter 4, Rule R317, as administered by the Department of Environmental Quality, Division of Water Quality."

-In IRC, Section [P2801.8](#), all words in the first sentence up to the word "water" are deleted.

- A new IRC, Section P2902.1.1, is added as follows:

"P2902.1.1 Backflow assembly testing. The premise owner or [his] the premise owner's designee shall have backflow prevention assemblies operation tested in accordance with administrative rules made by the Drinking Water Board at the time of installation, repair, and relocation and at least on an annual basis thereafter, or more frequently as required by the authority having jurisdiction.

Testing shall be performed by a Certified Backflow Preventer Assembly Tester. The assemblies that are subject to this paragraph are the Spill Resistant Vacuum Breaker, the Pressure Vacuum Breaker Assembly, the Double Check Backflow Prevention Assembly, the Double Check Detector Assembly Backflow Preventer, the Reduced Pressure Principle Backflow Preventer, and Reduced Pressure Detector Assembly. Third-party certification for backflow prevention assemblies will consist of any combination of two certifications, laboratory or field. Acceptable third-party laboratory certifying agencies are ASSE, IAPMO, and USC-FCCCHR. USC-FCCCHR currently provides the only field testing of backflow protection assemblies. Also see www.drinkingwater.utah.gov and rules made by the Drinkin Water Board."

-In IRC, Section P2902.1, the following subsections are added as follows:

"P2902.1.1 General Installation Criteria. Assemblies shall not be installed more than five feet above the floor unless a permanent platform is installed. The assembly owner, where necessary, shall provide devices or structures to facilitate testing, repair, and maintenance, and to insure the safety of the backflow technician.

P2902.1.2 Specific Installation Criteria.

P2902.1.2.1 Reduced Pressure Principle Blackflow Prevention Assembly. The reduced pressure principle backflow prevention assembly shall be installed as follows:

a. The assembly may not be installed in a pit.

- b. The relief valve of the assembly shall not be directly connected to a waste disposal line, including a sanitary sewer, a storm drain, or a vent.
- c. The assembly shall be installed in a horizontal position only, unless listed or approved for vertical installation in accordance with Section 303.4.
- d. The bottom of the assembly shall be installed a minimum of 12 inches above the floor or ground.
- e. The body of the assembly shall be a minimum of 12 inches from any wall, ceiling, or obstacle, and shall be readily accessible for testing, repair, and maintenance.

P2902.1.2.2 Double Check Valve Backflow Prevention Assembly. A double check valve backflow prevention assembly shall be installed as follows:

- a. The assembly shall be installed in a horizontal position only, unless listed or approved for vertical installation.
- b. The bottom of the assembly shall be a minimum of 12 inches above the ground or floor.
- c. The body of the assembly shall be a minimum of 12 inches from any wall, ceiling, or obstacle, and shall be readily accessible for testing, repair, and maintenance.
- d. If installed in a pit, the assembly shall be installed with a minimum of 12 inches of clearance between all sides of the vault, including the floor and roof or ceiling, with adequate room for testing and maintenance.

P2902.1.2.3 Pressure Vacuum Break Assembly and Spill Resistant Pressure Vacuum Breaker Assembly. A pressure vacuum break assembly or a spill resistant pressure vacuum breaker assembly shall be installed as follows:

- a. The assembly shall not be installed in an area that could be subject to backpressure or back drainage conditions.
- b. The assembly shall be installed a minimum of 12 inches above all downstream piping and the highest point of use.
- c. The assembly shall be a minimum of 12 inches from any wall, ceiling, or obstacle, and shall be readily accessible for testing, repair, and maintenance.
- d. The assembly shall not be installed below ground, in a vault, or in a pit.
- e. The assembly shall be installed in a vertical position."

-IRC, Section P2910.5, is deleted and replaced with the following:

"P2910.5 Potable water connections. When a potable water system is connected to a nonpotable water system, the potable water system shall be protected against backflow by a reduced pressure backflow prevention assembly or an air gap installed in accordance with Section 2901."

-IRC, Section P2910.9.5, is deleted and replaced with the following:

"P2910.9.5 Makeup water. Where an uninterrupted nonpotable water supply is required for the intended application, potable or reclaimed water shall be provided as a source of makeup water for the storage tank. The makeup water supply shall be protected against backflow by means of an air gap not less than 4 inches (102 millimeters) above the overflow or by a reduced pressure backflow prevention assembly installed in accordance with Section 2902."

-In IRC, Section P2911.12.4, the following words are deleted: "and backwater valves".

-In IRC, Section P2912.15.6, the following words are deleted: "and backwater valves".

-In IRC, Section P2913.4.2, the following words are deleted: "and backwater valves".

-IRC, Section P3009, is deleted and replaced with the following:

"P3009 Connected to nonpotable water from on-site water reuse systems. Nonpotable systems utilized for subsurface irrigation for single-family residences shall comply with the requirements of R317-401, UAC, Gray Water Systems."

-In IRC, Section P3103.6, the following sentence is added at the end of the paragraph: "Vents extending through the wall shall terminate not less than 12 inches from the wall with an elbow pointing downward."

- In IRC, Section P3104.4, the following sentence is added at the end of the paragraph:

"Horizontal dry vents below the flood level rim shall be permitted for floor drain and floor sink installations when installed below grade in accordance with Chapter 30, and Sections P3104.2 and P3104.3. A wall cleanout shall be provided in the vertical vent."

-In IRC, Section E3901.9, the following exception is added:

"Exception: Receptacles or other outlets adjacent to the exterior walls of the garage, outlets adjacent to an exterior wall of the garage, or outlets in a storage room with entry from the garage may be connected to the garage branch circuit."

-House Bill 37
3902.16 is deleted

-In IRC Section E3902.17 (a) following the word "Exception" the number "1." is added; and (b) at the end of the section, the following sentences are added:

"2. This section does not apply for a simple move or an extension of a branch circuit or an outlet which does not significantly increase the existing electrical load. This exception does not include changes involving remodeling or additions to a residence."