

City of Wheat Ridge local amendments to the
2018 International Residential Code
(Effective July 1, 2020)

Sec. 5-85. Residential Code.

- (a) *Adoption.* The International Residential Code, 2018 Edition, is hereby adopted by reference and incorporated into this article as though fully set forth herein as the one- and two-family dwelling code of the City of Wheat Ridge. One (1) copy of said International Residential Code shall be filed in the office of the city clerk and may be inspected during regular business hours. Except as otherwise provided hereafter, such code is adopted in full, including the outline of contents and index contained herein. The only Appendices hereby adopted by reference are Appendices A, B, C, D, F, H, H, J, Q, and T. The 2018 International Residential Code shall be known as the "I.R.C." or the "residential code" and may be cited and referred to as such.
- (b) *Amendments.* The International Residential Code adopted by this section is amended as follows. Section numbers referred to herein refer to and correspond with the section numbers of the 2018 International Residential Code.

R101.1 Title. Amend to read in its entirety:

R101.1 Title. These provisions shall be known as the *Residential Code for One- and Two-family Dwellings* of the City of Wheat Ridge, and shall be cited as such and will be referred to herein as "this code." *R101.1 Title.* Amend to read in its entirety:

R101.2 Scope. Amend to read in its entirety:

R101.2 Scope. The provisions of the International Residential Code for One- and Two-Family Dwellings shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, removal and demolition of detached one- and two-family dwellings and townhouses not more than three stories above grade plane in height with separate means of egress and their accessory structures.

R105.2 Work exempt from permit. Amend to read in its entirety:

R105.2 Work exempt from permit. Permits shall not be required for the following. Exemption from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction.

Building:

1. One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed 120 square feet.
2. Fences not over 6 feet high.

3. Retaining walls that are not over 4 feet in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge.
4. Water tanks supported directly on grade if the capacity does not exceed 5,000 gallons and the ratio of height to diameter or width does not exceed 2 to 1.
5. Sidewalks and driveways.
6. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work that is not part of the scope of a larger permissible project.
7. Prefabricated swimming pools that are less than 24 inches deep.
8. Swings and other portable playground equipment.
9. Window awnings supported by an exterior wall which do not project more than 54 inches from the exterior wall and do not require additional support.
10. Decks not exceeding 120 square feet in area, that are not more than 30 inches above grade at any point, are not attached to a dwelling unit and do not serve the exit door required by Section R311.4.
11. Hoop houses as defined in Section 3102.2 of the International Building Code that do not exceed 400 square feet in floor area, that are not occupied by the general public, and that do not contain mechanical or electrical devices, equipment or systems.
12. Residential lawn sprinkler systems.

Electrical:

1. Listed cord-and-plug connected temporary decorative lighting.
2. Reinstallation of attachment plug receptacles but not the outlets therefor.
3. Replacement of branch circuit overcurrent devices of the required capacity in the same location.
4. Electrical wiring, devices, appliances, apparatus or equipment operating at less than 25 volts and not capable of supplying more than 50 watts of energy.
5. Minor repair work, including the replacement of lamps or the connection of approved portable electrical equipment to approved permanently installed receptacles.

Gas:

1. Portable heating, cooking or clothes drying appliances.
2. Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.
3. Portable fuel cell appliances that are not connected to a fixed piping system and are not interconnected to a power grid.

Mechanical:

1. Portable heating appliances.
2. Portable ventilation appliances.
3. Portable cooling unit.
4. Steam, hot or chilled water piping within any heating or cooling equipment regulated by this code.
5. Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.

6. Portable evaporative cooler.
7. Self-contained refrigeration systems containing 10 pounds (4.54 kg) or less of refrigerant or that are actuated by motors of 1 horsepower (746W) or less.
8. Portable fuel cell appliances that are not connected to a fixed piping system and are not interconnected to a power grid.

Plumbing:

The stopping of leaks in drains, water, soil, waste or vent pipe; provided, however, that if any concealed trap, drainpipe, water, soil, waste or vent pipe becomes defective and it becomes necessary to remove and replace the same with new material, such work shall be considered as new work and a permit shall be obtained and inspection made as provided in this code.

The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures, and the removal and reinstallation of water closets, provided such repairs do not involve or require the replacement or rearrangement of valves, pipes or fixtures.

R105.5 Expiration. Amend to read in its entirety:

R105.5 Expiration. Every permit issued by the code official under the provisions of this code shall expire one year (365 days) after the date of issuance. The building official is authorized to grant, in writing, one or more extensions of time, for periods of not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

R106.1 Submittal documents. Amend to read in its entirety:

R106.1 Submittal documents. Construction documents, statement of special inspections and other data shall be submitted in two (2) sets with each application for permit. The Building Official may allow additional sets to be submitted to allow for concurrent review to decrease the review time for applicants who wish to submit the additional documents. The construction documents shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed. Where special conditions exist, the building official is authorized to require additional construction documents to be prepared by a registered design professional.

Exception: The building official is authorized to waive the submission of construction documents and other data not required to be prepared by a registered design professional if it is found that the nature of the work applied for is such that reviewing of construction documents is not necessary to obtain compliance with this code.

R108.2 Schedule of permit fees. Amend to read in its entirety:

R108.2 Schedule of permit fees. On buildings, structures, electrical, gas, mechanical and plumbing systems or alterations requiring a permit, a fee for each permit shall be paid as required, in accordance with the schedule as established by the applicable governing authority. The permit fee shall be established as set forth in Table 1-A.

R108.3 Building permit valuations. Amend to read in its entirety:

R108.3 Building permit valuations. The applicant for a permit shall provide an estimated project valuation at the time of application. Permit valuations shall include the total value of all work, including foundation work, structural and non-structural building components, electrical, gas, plumbing, mechanical and interior finish materials. Project valuation shall be calculated by the Building Division based on the most current data published by ICC Building Valuation Data Sheet and the higher of the applicant stated valuation and the building division calculated valuation shall be used to determine building permit fees. Final building permit valuation shall be set by the building official.

R108.5 Refunds. Amend to read in its entirety:

R108.5 Refunds. The code official shall authorize the refunding of fees as follows:

1. The full amount any fee paid hereunder that was erroneously paid or collected.
2. Not more than 100 percent of the permit fee paid when no work has been done under a permit issued in accordance with this code.
3. Not more than 80 percent of the plan review fee paid when an application for a permit for which a plan review fee has been paid is withdrawn or canceled before any plan review effort has been expended.
4. Not more than 50 percent of the plan review fee paid when an application for a permit for which a plan review fee has been paid is withdrawn or canceled after initiation of any plan review effort.

Note: The code official shall not authorize the refunding of any fee paid except upon written application filed by the original permittee not later than 180 days after the date of fee payment.

R112 Board of Appeals. Amend to read in its entirety:

R112 Board of Appeals. Appeals of decisions and determinations made by the Building Official shall comply with the process and procedures set forth in City of Wheat Ridge Municipal Code Sections 2-59 and 5-25. An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted thereunder, including fines, have been incorrectly interpreted, the provisions of the code do not fully apply, or an equally good or better form of construction is proposed.

R113.4 Violation penalties. Amend to read in its entirety:

R113.4 Violation penalties. Any person or entity who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter or repair residential work in violation of the approved construction documents or directive of the code official, or of a permit or certificate issued under the provisions of this code, shall be guilty of a misdemeanor, punishable by a fine of not more than \$1,000.00 dollars or by imprisonment not exceeding 90 days, or both such fine and imprisonment; provided, however, that no person under the age of eighteen (18) years shall be subjected to imprisonment. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

R114.2 Unlawful continuance. Amend to read in its entirety:

R114.2 Unlawful continuance. Any person who shall continue any work in or about the structure after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable to a fine of not less than 60 dollars or not more than 1,000 dollars and shall be guilty of a misdemeanor, punishable by a fine of not more than \$1,000.00 dollars or by imprisonment not exceeding 90 days, or both such fine and imprisonment. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

Table R301.2(1): Climatic and Geographic Design Criteria. Table R301.2(1) shall apply as referenced in this code and is hereby completed as follows:

TABLE R301.2(1) - CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

Ground and Roof Snow Load	Wind Design*		Seismic Design Category	Subject To Damage From			Winter Design Temp	Ice Barrier Underlayment Required	Flood Hazards	Air Freezing Index	Mean Annual Temp
	Speed (mph)	Topographic Effects		Weathering	Frost line depth	Termite					
30 psf	135 mph** Vult Exp. C	Yes	"B"	Severe	36"	Slight	1° F	Yes	1979 Firm	1500	45 F
Manual J Design Criteria											
Elevation		Latitude	Winter Heating 99% Dry Bulb	Summer Cooling 1% Dry Bulb		Altitude Correction Factor	Indoor Design Temperature	Design Temperature Cooling	Heating Temperature Difference		
5459 ft.		39° North	-7	95		Varies	72°	75°	79°		
Cooling Temperature Difference		Wind Velocity Heating	Wind Velocity Cooling	Coincident Wet Bulb		Daily Range	Winter Humidity	Summer Humidity	--		
20°		15 mph	7.5 mph	59		High (H)	50%	50%	--		
<p>** Approximately Equivalent to 105 mph V_{asd}^d (three second gust) Exposure C (see Table R301.2.1.3 for conversion)</p>											

R313 Automatic fire sprinkler systems. Delete entire section.

R401.2 Requirements. Amend to read in its entirety

R401.2 Requirements. Foundation construction shall be capable of accommodating all loads according to Section R301 and of transmitting the resulting loads to the supporting soil. Fill soils that support footings and foundations shall be designed, installed and tested in accordance with accepted engineering practice. Gravel fill used as footings for wood and precast concrete foundations shall comply with Section R403. With the exception of prescriptive monolithic slabs less than 1000 square feet in size for garages or similar non-habitable occupancies, foundation systems shall be designed, inspected and approved by a State of Colorado registered Structural Engineer and verified by the Building Division.

R602.5 Interior nonbearing walls. Amend to read in its entirety:

R602.5 Interior nonbearing walls. Interior nonbearing walls shall be permitted to be constructed with 2-inch-by-3-inch (51 mm by 76 mm) studs spaced 24 inches on center. Interior nonbearing walls shall be capped with at least a single top plate. Interior nonbearing walls shall be fire blocked in accordance with Section R602.8.

R602.7.3 Nonbearing walls. Amend to read in its entirety:

R602.7.4 Nonbearing walls. In interior and exterior nonbearing walls, a header constructed of two (2) 2-inch-by-4-inch members placed on edge shall be required over all openings spanning less than eight (8) feet.

R703.6.1 Lath. Amend to read in its entirety:

R703.7.1 Lath. All lath and lath attachments shall be of corrosion-resistant materials. Expanded metal or woven wire lath shall be attached with 1½-inch long, 11 gage nails having a 7/16 -inch head, or 7/8 -inch-long, 16 gage staples, spaced at no more than 6 inches, or as otherwise approved. Whenever the wall sheathing is of code approved material capable of receiving and sustaining fasteners, lath fasteners shall be spaced at no more than 6 inches on center both horizontally and vertically, or as otherwise approved.

R807.1 Attic Access. Amend to read in its entirety:

R807.1 Attic Access. Buildings with combustible ceiling or roof construction shall have an attic access opening to attic areas that exceed 30 square feet and have a vertical height of 30 inches or more.

The rough-framed opening shall not be less than 22 inches by 30 inches and shall be located in a hallway or other readily accessible location. A 30-inch minimum unobstructed headroom in the attic space shall be provided at all points directly above the access opening. The finish opening dimensions of attic accesses shall be a minimum of 20 inches by 30 inches. See Section M1305.1.3 for access requirements where mechanical equipment is located in attics.

R905.2.6 Attachment. Amend to read in its entirety:

R905.2.6 Attachment. Asphalt shingles shall be attached with a minimum of 6 nails per shingle or as specified by the manufacturer, whichever is more restrictive. Where the roof slope exceeds 20 units vertical in 12 units horizontal (167 percent slope) special methods of fastening are required. Special fastening methods shall be tested in accordance with ASTM D 3161, Class F. Asphalt shingle wrappers shall bear a label indicating compliance with ASTM D 3161, Class F.

905.2.7.1 Ice barrier. Amend to read in its entirety:

905.2.7.1 Ice barrier. An ice barrier complying with ASTM D1970 shall be required in lieu of normal underlayment at roof eaves and shall extend from the eave edge to a point at least 24 inches inside the exterior wall line of the building.

Exception: Detached structures and attached garages that contain no conditioned floor area.

R905.2.8.5 Other Flashing. Amend to read in its entirety:

R905.2.8.4 Other Flashing. Flashing against a vertical front wall, as well as soil stack, vent pipe and chimney flashing, shall be applied according to the asphalt shingle manufacturer's printed instructions. A minimum 2-inch by 2-inch galvanized flashing shall be required at eaves of all roofs. Flashing shall be installed to as recommended by manufacturer or as necessary to seal gaps between roof sheathing and roof gutters.

M1305.1.4 Appliances under floors. Amend to read in its entirety:

M1305.1.3 Appliances under floors. Underfloor spaces containing appliances requiring access shall have an unobstructed passageway large enough to remove the largest appliance, but not less than 30 inches high and 22 inches wide, no more than 20 feet long when measured along the centerline of the passageway from the opening to the appliance. A level service space at least 30 inches deep and 30 inches wide shall be present at the front or service side of the appliance. If the depth of the passageway or the service space exceeds 12 inches below the adjoining grade, the walls of the passageway shall be lined with concrete or masonry extending 4 inches above the adjoining grade in accordance with Chapter 4. The rough-framed access opening dimensions shall be a minimum of 22 inches by 30 inches where the dimensions are large enough to remove the largest appliance. The finish opening dimensions of under floor accesses shall be a minimum of 20 inches by 30 inches.

G2417.4 Test pressure measurement. Amend in its entirety:

G2417.4 Test pressure measurement. Test pressure shall be measured with a manometer or with a pressure-measuring device designed and calibrated to read, record, or indicate a pressure loss caused by leakage during the pressure test period. Mechanical gauges used to measure test pressure shall have a maximum range of 30 psig and shall display measurements in 1 psig increments.

G2417.4.1 Test Pressure. Amend to read in its entirety:

406.4.1 Test Pressure. The test pressure to be used shall be no less than 1½ times the working proposed maximum working pressure, but not less than 20 psig, irrespective of design. Where

the test pressure exceeds 125 psig, the test pressure shall not exceed a value that produces a hoop stress in the piping greater than 50 percent of the specified minimum yield strength of the pipe.

G2417.4.2 Test duration. Amend to read in its entirety:

406.4.2 Test duration. Test duration shall not be less than 15 minutes. The maximum test duration shall not be required to exceed 24 hours.

P2603.5.1 Sewer Depth. Amend to read in its entirety.

P2603.5.1 Sewer depth. Building sewers that connect to private sewage disposal systems shall not be less than 12 inches below finished grade at the point of septic tank connection. Building sewers shall not be less than 12 inches below grade.

P2904 Dwelling Unit Fire Sprinkler Systems. Delete section in its entirety

P3103.1.1 Roof extension. Amend to read in its entirety:

P3103.1.1 Roof extension. All open pipes that extend through a roof shall be terminated at least twelve (12) inches above the roof, except that where a roof is to be used for any occupiable purpose, the vent extensions shall be run at least 7 feet (2134 mm) above the roof.

(Effective January 31, 2018)

Appendix F: Radon Gas Methods

Appendix T: Solar-Ready Provisions – Detached One-and Two Family Dwellings and Townhouses. Amend appendix in its entirety.

The following section T103.9 (RA103.7) is only adopted.

T103.9 (RA103.7) Electrical service reserved space. The main electrical service panel shall have a reserved space to allow installation of a dual pole circuit breaker for future solar electric installation and shall be labeled "For Future Solar Electric." The reserved space shall be positioned at the opposite (load) end from the input feeder location or the main circuit breaker.