

AMENDMENTS TO THE 2021 INTERNATIONAL RESIDENTIAL CODE (IRC)

Note: Refer to the section “Common to all adopted 2021 International Codes” for more information.

Appendix AM Home Day Care Group R-3 Occupancy **Adopt Appendix**

Wildfire Mitigation Standards

Attached hereto, as Exhibit “B”

Adopt as an appendix

Water Supply Standard for Rural Firefighting

Attached hereto, as Exhibit “C”

Adopt as an appendix

Installation Standard IS-22-98

Installation standards for potable water storage tanks and cisterns for domestic use
Attached hereto, as Exhibit “D”

Adopt as an appendix

Barrier Requirements for Swimming Pools, Hot Tubs and Spas

Attached hereto, as Exhibit "F"

Adopt as appendix

R101.1 Title

Douglas County Building Division

Insert

R104.2.1 Election to proceed under previous code

Add new subsection

Within the first 180 days following the adoption of this code, an applicant under subsection R104.2 may elect to, and if approved by the Building Official may, proceed under the set of codes previously adopted on November 12, 2019; provided, however, that said election must be made certain and in writing, and under no circumstances shall an applicant be permitted to proceed partially under one set of codes and partially under the other.

R105.2(5) Work exempt from permit (Building)

Delete words “and driveways”

R105.2(11-14) Work exempt from permit (Building)

Add new exceptions

11. Manufactured metal shipping containers used as tool and storage sheds with a floor area not larger than 200 square feet and are:
 - 11.1. Not used for storage of hazardous materials, or
 - 11.2. Not modified, connected, or stacked on top of each other.
12. Shade structures such as fabric shade sails or fabric covered awnings; and detached, free standing pergolas that do not exceed 200 square feet and are not subject to a uniformly distributed snow load; and detached ornamental garden structures and greenhouses accessory to a dwelling that do not exceed 200 square feet.
13. Replacement windows and doors where no structural modification of the rough opening is required, and the replacement window is of the same operating style as the existing window or a style that provides for an equal or greater window opening area than the existing window

14. The replacement or repair of roofing less than one square (100 square feet).

All work exempted by this Section R105.2 must comply with applicable zoning requirements and the regulations of other agencies having authority.

R105.3 Application for permit (8) and (9)

Add new subsection requirements

8. Proof of ownership of the property shall be submitted with the building permit application. When access is not from a public road, proof of legal and physical access shall be submitted with the application. If legal access is in question, the Building Official may confer with the County Attorney to determine the legality of the proposed access. If physical access is in question, referral comments may be sought from the Douglas County Department of Public Works and the Fire Protection District serving the property. The Building Official shall then determine whether legal access is available and whether physical access is safe, reasonable, and adequate. If the Building Official determines that the physical access is not safe, reasonable, or adequate, he may recommend whatever improvements would be necessary to provide safe and reasonable access.
9. A soils test of the building site prepared by a professional engineer registered by the State of Colorado shall be submitted with the application for a building permit. A professional engineer registered by the State of Colorado shall design the foundation in accordance with the soils report. Concrete foundations shall comply with ACI 318. When the building site is located in a hillside area, or in the opinion of the Building Official, is located in an area subject to geological hazards or steep slopes, the Building Official may require an engineering geologist, working within their field of expertise, to submit specific recommendations regarding the building site and the proposed location and design.

R108 Fees

Delete section in its entirety

R109.1.1 Foundation inspection

Addition to the end of the subsection

Inspections shall be performed by a Colorado licensed professional engineer or architect that is registered in the State of Colorado. A sealed written report shall be provided to the Building Official of the results for these inspections by a Colorado licensed professional engineer or architect that is registered in the State of Colorado.

R112 Board of Appeals

Delete section in its entirety

R202 Definitions

Accessory Structure

Amend to read as follows

Accessory Structure. A structure that is not over two stories in height, the use of which is customarily accessory to and incidental to that of the dwelling(s), or other allowed use, and that is located on the same lot.

Table R301.2(1) Climatic and geographic design criteria**Delete chart and substitute****TABLE R301.2(1)****Climatic & Geographic Design Criteria**

Topo effects	Seismic category	Subject to damage from			Ice barrier underlay	Flood hazards	Wind-borne debris
		Weathering	Frost line depth	Termites			
Exposure C	B	Severe	36"	Slight to moderate	Yes above 7,000'	per FEMA	No

Manual J Design Criteria

Elevation	Altitude correction factor	Coincident wet bulb	Indoor winter dry bulb temp	Air freezing index	Outdoor winter dry bulb temp	Design temp cooling	Heating temp difference
Varies	Varies	59°	70°	867	-3°	75°	73°
Latitude	Daily range	Indoor summer rel. humidity	Indoor winter rel. humidity	Indoor summer dry bulb temp	Outdoor summer dry bulb temp	Mean annual temp	Cooling temp difference
39.5° N	H	50%	30%	75°	90°	48°	15°

TABLE R301.2(2)**Wind and Snow Load Design Criteria**

USGS Elevation Ranges (feet)*	Snow load (psf)	Wind Speed
5152-5999	30	115 Ultimate Wind Speed Exposure C
6000-6499	35	
6500-6999	40	
7000-7499	45	130 Ultimate Wind Speed Exposure C
7500-7999	50	
8000-8499	55	
8500-8999	60	
9000-9499	65	
Ground Snow Load = Roof Snow Load		Reductions for Snow Loads are Not Allowed

*At top of foundation

R302.13 Fire protection of floors.**Delete section in its entirety****R310.1 Emergency escape and rescue openings required****Delete exception (2)****R310.4.1 Minimum size****Add exception (2)**

Exception 2. In basements of existing R-3 (one- or two-family dwellings) occupancies, egress window wells may have a minimum horizontal projection of 24 inches (610mm) and must be the full width of the window. If a ladder is required in the window well, the ladder must be installed such that it does not interfere with or is in front of the operable side of the window.

R313.1 Townhouse automatic fire sprinkler systems

Delete in its entirety and substitute

An automatic residential fire sprinkler system *may* be installed in townhouses in accordance with Section P2904 or NFPA 13D.

R313.2 One and two-family dwellings automatic fire sprinkler systems **Delete section in its entirety and add**

Owner occupied lodging houses, bed and breakfast with five or fewer guest rooms and 10 or fewer total occupants permitted to be constructed in accordance with the International Residential Code shall be equipped with an automatic residential fire sprinkler system designed and installed in accordance with Section P2904 or NFPA 13D.

R315.2.2 Alterations, repairs and additions

Delete exception 2 and 3

R315.3 Location

Delete in its entirety and substitute

Carbon monoxide alarms in dwelling units shall be installed outside each separate sleeping area within 15 feet of each bedroom's entrance. Where a fuel-burning appliance is located within a bedroom or its attached bathroom, a carbon monoxide alarm shall be installed within the bedroom.

R401.2 Requirements

Addition to the end of the subsection

Based on soils reports for lots within the Dipping Bedrock Overlay District, as identified by the Colorado Geological Survey, the Building Official may require additional testing to determine the proper foundation design. Such additional testing may include, but are not limited to, testing for initial water content, initial dry density, grain size distribution, Atterberg Limits (liquid limit and plasticity index), percent swell and test load surcharge, swell pressure, penetration resistance (blow counts), and unconfined compressive strength.

R401.3 Drainage

Delete in its entirety and substitute

Single-family detached dwelling units and accessory structures thereto, shall comply with the Douglas County Drainage, Erosion and Sediment Control (DESC) manual.

R402.1 Wood foundations

Delete in its entirety

R403.3 Frost-protected shallow foundations

Delete in its entirety

R905.7.4 Material standards.

Delete in its entirety and substitute

Wood shingles shall have a minimum class C rating, be of naturally durable wood and comply with the requirements of Table R905.7.4.

R905.8.5 Material standards.**Delete in its entirety and substitute**

Wood shakes shall have a minimum class C rating and comply with the requirements of Table R905.8.5.

R908.7 Drip edge flashing for asphalt shingle roof**Add New Subsection**

Drip edge flashing shall be provided at eaves and rake edges of shingle roofs. Adjacent segments of drip edge shall be overlapped a minimum of 2 inches. Drip edges for eaves shall extend a minimum of 1.5 inches below the roof sheathing and extend up the roof deck a minimum of 4 inches. Drip edges for gables shall extend a minimum of .25 inches below the roof sheathing and extend up the roof deck a minimum of 2 inches. Drip edges shall be mechanically fastened to the roof deck at a maximum of 12 inches on center with fasteners as specified in Section R905.2.5. Underlayment shall be installed over the drip edge along eaves and under the drip edge on rakes/gables. Unless specified differently by the shingle manufacturer, shingles are permitted to be flush with the drip edge.

R908.3.1.1 Roof recover not allowed**Addition to exception (2)**

Exception 2. Where the existing roof covering is asphalt shingle, slate, clay, cement, or asbestos-cement tile.

Chapter 11 Energy efficiency**Delete Chapter in its entirety and substitute**

IRC Sections N1101 through N1113 (R505) in Chapter 11 are deleted in their entirety and replaced with a new section N1101 to read as follows:

SECTION 1101
GENERAL REQUIREMENTS

N1101.1 Scope. This chapter regulates the energy efficiency for the design and construction of buildings regulated by this code.

N1101.2 Criteria. Buildings shall be designed and constructed in accordance with the 2018 International Energy Conservation Code (IECC) as amended and adopted by Douglas County. The climate zone for unincorporated Douglas County is established as Zone 5B.

G2406.2(303.3) (3) and (4) Prohibited locations**Delete in their entirety****G2417.4.1 (406.4.1) Test pressure****Delete section in its entirety and substitute**

Test pressure and duration Low pressure gas piping systems not exceeding six (6) inches of water column shall be tested at ten (10) pounds per square inch on a thirty (30) pounds per square inch gauge using air, CO₂, or Nitrogen for not less than fifteen (15) minutes with no perceptible drop in pressure. For welded piping, and for piping carrying gas at pressures in excess of fourteen (14) inches (356 mm) water column pressure, the test pressure shall not be less than sixty (60) pounds per square inch (413.4 kPa) and shall be continued for not less than thirty (30) minutes with no perceptible drop in pressure.

G2417.4.2 (406.4.2) Test duration**Delete in its entirety**

G2425.8 (501.8) (7) Appliances not required to be vented

Delete in its entirety

G2433.1 (603.1) General

Delete in its entirety and substitute

Log lighters are prohibited.

G2445 (621) Unvented room heaters

Delete section in its entirety and substitute

Unvented room heaters and unvented fireplaces are prohibited within a dwelling.

Clarification: IRC Sections G2425.8, G2445 and IFGC Sections 501.8(8), and 621 are deleted in their entirety and amended to prohibit the use of unvented room heaters and specifically unvented or ventless fireplaces. These are defined as appliances that have no flue collar or flue pipe associated with them and are designed to discharge all products of combustion through the front or face of the appliance and into the room or space being heated. It is the intent of the Building Official to prohibit the installation of these appliances inside dwellings or to provide heat to habitable spaces. However, these appliances may be installed in accordance with their listings and manufacturers specifications, outside or on patios with or without covers, with at least one open side that communicates directly with the atmosphere.

Chapters 34 through 43.

Delete Chapters in their entirety and substitute Chapters 34 through 43 are deleted in their entirety and replaced by a new Chapter 34, General Requirements, which shall read as follows:

CHAPTER 34
GENERAL REQUIREMENTS

E3401.1 Scope. This chapter governs all electrical components, equipment and systems used in buildings and structures regulated by this code.

E3401.2 Criteria. All electrical components, equipment and systems shall be designed and constructed in accordance with the provisions of NFPA 70 (National Electric Code, NEC), as amended and adopted by Douglas County.