

ORDINANCE NO. 149, 2018
OF THE COUNCIL OF THE CITY OF FORT COLLINS
AMENDING CHAPTER 5, ARTICLE II, DIVISION 2, OF THE
CODE OF THE CITY OF FORT COLLINS FOR THE PURPOSE OF
REPEALING THE *2015 INTERNATIONAL BUILDING CODE* AND
ADOPTING THE *2018 INTERNATIONAL BUILDING CODE*, WITH AMENDMENTS

WHEREAS, since 1924, the City has reviewed, amended and adopted the latest nationally recognized building standards available for the times; and

WHEREAS, upon recommendation of City staff, the City Council has determined that it is in the best interests of the City to align seven interconnected basic construction codes under one publication year; and

WHEREAS, the seven interconnected basic construction codes are the *International Building Code*, *International Residential Code*, *International Mechanical Code*, *International Fuel Gas Code*, *International Energy Conservation Code*, and *International Property Maintenance Code*; and

WHEREAS, the City Council has determined that the 2018 publication year of the seven interconnected basic construction codes ought to be adopted and that any counterpart codes previously adopted should be repealed, both in order to align the publication years of the codes and also because the 2018 publications contain improvements in construction code regulation; and

WHEREAS, City staff has conducted a significant public outreach program, working with the regulated construction industry and building professionals; and

WHEREAS, the adoption of the seven interconnected basic construction codes has been presented to and recommended by the Board of Realtors, Water Board, Energy Board, Commission on Disability, Natural Resource Advisory Board, Poudre Fire Authority Board, Building Review Board, Affordable Housing Board, Air Quality Advisory Board, Northern Colorado Home Builder Association and the Chamber of Commerce; and

WHEREAS, the City Council has determined that it is in the best interest of the health, safety and welfare of the City and its citizens that the *2015 International Building Code*, as previously adopted and amended by the City pursuant to Ordinance No. 072, 2017, be repealed and that in its place, the *2018 International Building Code* be adopted, with local amendments as set forth in this Ordinance; and

WHEREAS, pursuant to the City Charter II, Section 7, City Council may enact any ordinance which adopts a code by reference in whole or in part provided that before adoption of such ordinance the Council hold a public hearing thereon and that notice of the hearing is published twice in a newspaper of general circulation published in the City, with one of such publications occurring at least eight (8) days preceding the hearing and the other publication occurring at least fifteen (15) days preceding the hearing; and

WHEREAS, in compliance with Article II, Section 7, the City Clerk published in the Fort Collins *Coloradoan* such notice of hearing concerning adoption of the 2018 International Building Code on November 18, 2018, and November 25, 2018; and

WHEREAS, attached as Exhibit “A” and incorporated herein by reference is the Notice of Public Hearing dated November 18, 2018, that was so published and which the Council hereby finds meets the requirements of Article II, Section 7 of the City Charter.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF FORT COLLINS as follows:

Section 1. That the City Council hereby makes and adopts the determinations and findings contained in the recitals set forth above.

Section 2. That Section 5-26(a) of the Code of the City of Fort Collins is hereby amended as follows:

(a) Pursuant to the power and authority conferred on the City Council by Section 31-16-202, C.R.S. and Article II, Section 7 of the Charter, the City Council hereby repeals the *2015 International Building Code (-2015 IBC)*, and adopts, as the building code of the City, the *2018 International Building Code (2018 IBC)* published by the International Code Council, as amended by the City, which shall have the same force and effect as though set forth in full herein. The subject matter of the codes adopted herein includes comprehensive provisions and standards regulating the erection, construction, enlargement, alteration, repair, moving, removal, conversion, demolition, occupancy, equipment, use, height, area and maintenance of buildings and structures exclusive of detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three (3) stories above grade and their accessory structures, for the purpose of protecting the public health, safety and general welfare. As provided in the *2018 International Building Code*, Appendices are not adopted except as expressly set forth in Section 5-27.

Section 3. That Section 5-27 of the Code of the City of Fort Collins is hereby repealed in its entirety and reenacted to read as follows:

Sec. 5-27. Amendments and Deletions to 2015 International Building Code.

The 2018 *INTERNATIONAL BUILDING CODE* adopted in Section 5-26 is hereby amended in the following respects:

(1) **Section 101. Title** is hereby retained in its entirety with the following amendments:

101.1. Title. These regulations shall be known as the General Building Code of the City of Fort Collins, hereinafter referred to as ‘this code’.

(2) **Sections 101.4.1 through 101.4.7 Referenced codes**, are hereby deleted in their entirety and the following Sections 101.4.1 through 101.4.10 are hereby added in lieu thereof:

101.4.1 Electrical. All references to the *Electrical Code* shall mean the electrical code currently in effect as enacted and amended from time to time by the State of Colorado.

101.4.2 Gas. All references to the *International Fuel Gas Code* shall mean the fuel gas code currently in effect as enacted by the City.

101.4.3 Mechanical. All references to the *International Mechanical Code* shall mean the mechanical code currently in effect as enacted by the City.

101.4.4 Plumbing. All references to the *International Plumbing Code* shall mean the plumbing code currently in effect as enacted and amended from time to time by the State of Colorado.

101.4.5 Property Maintenance. All references to the *International Property Maintenance Code* shall mean the property maintenance code currently in effect as enacted by the City.

101.4.6 Fire Prevention. All references to the *International Fire Code* shall mean the fire code currently in effect as enacted by the City.

101.4.7 Energy. All references to the *International Energy Conservation Code* shall mean the energy code currently in effect as enacted by the City.

101.4.8 Residential. All references to the *International Residential Code* shall mean the residential code currently in effect as enacted by the City.

101.4.9 Areas prone to flooding. All references to ‘flood hazard’ and ‘areas prone to flooding’ in this code and appendices adopted therewith subject to applicable regulations and requirements set forth in the City Code, “Chapter 10, Flood Prevention and Protection.”

101.4.10 Existing buildings. All references to existing buildings shall be regulated pursuant to the adopted International Property Maintenance Code or the International Existing Building Code currently in effect as enacted by the City.

- (3) ***Section 103 Department of Building Safety*** is hereby deleted in its entirety and the following is hereby added in lieu thereof:

SECTION 103 CODE ADMINISTRATION

103.1 Entity charged with code administration. The Community Development and Neighborhood Services Department (CDNS), as established by the City Code, is hereby charged with the administration and enforcement of this code.

The *building official*, appointed by the City Manager, is charged with the direct overall administration and enforcement of this code; and, in the performance of said duties, may

delegate the necessary authority to the appropriate technical, administrative, and compliance staff under the supervision the *building official*.

- (4) **Section 105.2 Work exempt from permit**, including provisions under the heading of “Building”, is hereby retained with the following revisions:

105.2 Work exempt from permit.

Exemptions 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. *Permits* shall not be required for the following:

Building:

1. One-story, detached, accessory structures used for lawn and garden equipment storage, tool storage and similar uses, including arbors, pergolas, and similar structures, provided the floor area is not greater than 120 square feet (11.15 m²) or 8 feet (2.438 m) in height measured from grade, do not house flammable liquids in quantities exceeding 10 gallons (38 l) per building and are located at least 3 feet (0.914 m) from an adjoining property line.
2. Fences not over 6 feet (1829 mm) high.
3. Oil derricks
4. Retaining walls that are not over 4 feet (1219 mm) in height measured from the low side grade to the top of the wall unless supporting a surcharge or impounding Class I, II or IIIA liquids. The horizontal distance to the next uphill retaining wall shall be at least equal to the total height of the lower retaining wall.
5. Water tanks supported directly upon grade if the capacity does not exceed 5,000 gallons (18,927 L) and the ratio of height to diameter or width is not greater than 2:1.
6. Platforms intended for human occupancy or walking, sidewalks and driveways not more than 30 inches (762 mm) above adjacent grade, and not over any *basement* window and are not part of an *accessible route*.
7. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
8. Temporary motion picture, television and theater stage sets and scenery.
9. Prefabricated and portable *swimming* pools or wading pools, hot tubs or spas if such structures are supported directly upon grade when the walls of such structure are entirely above grade and if such structures cannot contain water more than 24 inches (610 mm) deep.

10. Shade cloth structures constructed for nursery or agricultural purposes, not including service systems. Hoop houses constructed with a flexible frame such as PVC tubing used for starting plants.
 11. Swings and other playground equipment or play structures accessory to detached one- and two-family *dwelling*s provided the floor area is not greater than 120 square feet (11.15 m²) or 8 feet (2.438 m) in height measured from grade, including one elevated playhouse or play structure per lot designed, and used exclusively for play. Elevated play houses or play structures shall not exceed 64 square feet (5.9 m²) of floor area or 6 feet (1.82 m) in height as measured from the floor to the highest point of such structure.
 12. Window awnings supported by an exterior wall which do not project more than 54 inches (1372 mm) from the *exterior wall*, do not require additional support, and do not extend over the public right of way. Window replacement requiring no structural alteration. Window replacement requiring no change in the window configuration which reduces the size of the window clear opening. Storm window, storm door and rain gutter installation, except that structures that are fifty years of age or older must first undergo a historic review pursuant to City Code Chapter 14.
 13. Non-fixed and movable fixtures, cases, racks, counters and partitions not over 5 feet 9 inches (1753 mm) in height.
 14. Decks not exceeding 200 square feet (18.58 m²) in area that are not more than 30 inches (762 mm) above *grade*, are not attached to a building, and do not serve an exit door required by Chapter 10.
 15. Roofing repair or replacement work not exceeding one square (100 square feet) of covering per building.
 16. Replacement of nonstructural siding when the removal of siding is performed in accordance with State laws regarding asbestos and lead paint, except that structures that are fifty years of age or older must first undergo a historic review pursuant to City Code Chapter 14.
 17. Work valued at less than \$500 when such work does not involve alteration of structural components, fire-rated assemblies, plumbing, electrical, mechanical or fire-extinguishing systems.
 18. Decorative ponds, fountains and pools that cannot contain water more than 24 inches (610 mm) deep.
- (5) ***Section 105.2 Work exempt from permit***, is further amended by deleting all headings and references under Electrical, Gas, Mechanical, and Plumbing in their entirety.
 - (6) A new ***Section 105.2.1 Emergency Repairs***, is hereby deleted in its entirety and the following is hereby added in lieu thereof:

105.2.1 Emergency repairs When the Building Official determines there is an emergency/disaster event that has caused substantial damage to structures within the City, the Building Official can issue a no-fee permit in order to make temporary repairs to a structure to address damages caused by the emergency/disaster event in order to make the structure safe and/or allow occupancy. A temporary permit will last for a period of 180 days, at which time, a regular building permit will need to be obtained to otherwise bring the structure into compliance with this code. The Building Official can extend a temporary permit under this section for good cause.

- (7) **Section 105.3.2 Time limitation of application** is hereby retained in its entirety with the following revision:

105.3.2 Time limitation of application An application for a *permit* for any proposed work shall be deemed to have been abandoned 180 days after the date of filing, unless such application has been pursued in good faith or a *permit* has been issued; except that the *building official* is authorized to grant one or more extensions of time for additional periods not exceeding 180 days each provided the application has not expired. The extension shall be requested in writing and justifiable cause demonstrated. Applications that have expired for 30 days or more will be considered void.

- (8) **Section 105.5 Expiration** is hereby retained in its entirety with the following revision:

Every *permit* issued shall become invalid unless the work on the site authorized by such *permit* is commenced within 180 days after its issuance, or if the work authorized on the site by such *permit* is suspended or abandoned for a period of 180 days after the time the work is commenced. The *building official* is authorized to grant, in writing, one or more extensions of time, for periods not more than 180 days each, provided the *permit* has not expired for more than 30 days. The extension shall be requested in writing and justifiable cause demonstrated.

Both prior to and subsequent to the effective date of this code, any work authorized by a *permit* regulated by this code or any other building construction code administered by the *building official* that involves the construction or alteration of an exterior building component, assembly or finish material, such as the foundation, wall and roof framing, sheathing, siding, fenestration, and roof covering, shall be fully finished for permanent outdoor exposure within 24 months of the date of the issuance of such *permit*.

- (9) **Section 106 Floor and Roof Design Loads** is hereby deleted in its entirety.
- (10) **Section 107.3.1 Approval of construction documents** is hereby retained in its entirety with the following revision:

107.3.1 Approval of construction documents. When the *building official* issues a *permit*, the *construction documents* shall be *approved* in writing or by a stamp, indicating the approved *permit* number. One set of *construction documents* so reviewed shall be retained by the *building official*. The other set shall be returned to the applicant, shall be kept at the

site of work and shall be open to inspection by the *building official* or his or her authorized representative.

- (11) **Section 108 Temporary Structures and Uses** is hereby deleted in its entirety.
- (12) **Section 109, FEES**, is hereby deleted in its entirety and the following is hereby added in lieu thereof:

SECTION 109 FEES

109.1 Payment of fees. No *permit* shall be valid until the fees prescribed by the City Manager pursuant to Chapter 7.5, Article I of the City Code, entitled, ‘Administrative Fees’, have been paid, except emergency permits issued pursuant to Section 105.2.1.

- (13) **Section 110.3 Required inspections** is hereby retained in its entirety with the following amendments:

110.3 Required inspections. The *building official* or his/her designee, upon notification, shall make the inspections set forth in Sections 110.3.1 through 110.3.11.

...

- (14) **Section 111.2 Certificate issued** is hereby retained in its entirety with the following amendments:

111.2 Certificate issued. After the *building official* inspects the building or structure and does not find violations of the provisions of this code or other laws that are enforced by the department of building safety, the *building official* shall issue a certificate of occupancy may contain the following:

1. The building *permit* number.
The address of the structure.
3. The name and address of the *owner* or the owner’s authorized agent.
4. A description of that portion of the structure for which the certificate is issued.
5. A statement that the described portion of the structure has been inspected for compliance with the requirements of this code for the occupancy and division of occupancy and the use for which the proposed occupancy is classified.
6. The name of the *building official*.
7. The edition of the code under which the *permit* was issued.
8. The use and occupancy, in accordance with the provisions of Chapter 3.
9. The type of construction as defined in Chapter 6.
10. The design occupant load.
11. If an *automatic sprinkler system* is provided, whether the sprinkler system is required.
12. Any special stipulations and conditions of the building permit.

- (15) **Section 113, Board of Appeals**, is hereby deleted in its entirety and the following is hereby added in lieu thereof:

SECTION 113 BOARD OF APPEALS

113.1 General. The Building Review Board (hereafter “Board”) established in Section 2-117 of the City Code is hereby empowered in accordance with the procedures set forth in this Section and as authorized under Section 2-119 of the City Code to hear and decide appeals of orders, decisions, or determinations made by the *building official* relative to the application and interpretation of this code; to determine the suitability of alternative materials or alternative methods of construction; and to grant *permit* extensions and reinstatements as prescribed by Section 105.5. The *building official* shall serve as the Secretary of the Board. The Board shall adopt rules of procedure for conducting its business and shall render all decisions and findings in writing.

113.2 Applications/Hearings. When a building *permit* applicant or a holder of a building *permit* desires relief from any decision of the *building official* related to the enforcement of this code, except as is otherwise limited in Section 113.4, such building *permit* applicant, building *permit* holder, or representative thereof may appeal the decision of the *building official* to the Board, stating that such decision by the *building official* was based on an erroneous interpretation of the building regulations or that an alternative design, alternative materials and/or the alternative methods of construction proposed by the appellant are equivalent to those prescribed by this code, considering structural strength, effectiveness, fire resistance, durability, safety and any other pertinent factors.

The Board shall hear and decide all appeals made to it and shall have the authority to rule in favor of the appellant when the Board determines that the interpretation of the building regulations of the City by the *building official* was erroneous, or when the Board determines an alternative design, alternative materials and/or the alternative methods proposed by the appellant are equivalent to those prescribed by this code, considering structural strength, effectiveness, fire resistance, durability, safety and any other pertinent factors. The Board shall require that sufficient evidence be submitted to substantiate any claims made regarding the proposed alternative design, alternative materials and/or alternative methods of construction. A quorum of 4 members shall be necessary for any meeting of the Board.

113.3 Fees and Notification. Persons desiring to appeal to the Board any decision of the *building official* as provided in this Section shall, at the time of filing such appeal, pay to the City a filing fee in the amount of \$50. Written notice of hearings shall be given to the Appellant and, with respect to requests for exceptions or variances to Section 1101.1 of this code, to the secretary to the Commission on Disability, at least 4 days prior to the hearing by mailing the same to such party's last known address by regular U.S. mail.

113.4 Limitations. The Building Review Board shall have no authority with respect to any of the following functions:

1. The administration of this code except as expressly provided otherwise;
Waiving requirements of this code, except as provided in this Section;
3. Modifying the applicable provisions of, or granting variances to, this code, or approving the use of alternative designs, alternative materials and/or alternative methods of construction except as provided for in this Section and based upon a specific appeal from a determination or decision of the *building official* on an individual case basis; and
4. Modifying, interpreting, or ruling on the applicability or intent of the zoning and land use regulations or other laws of the City except as expressly empowered otherwise.

- (16) **Section 114.4, Violation penalties** is retained in its entirety with the following revision:

114.4 Violation penalties. Any person who violates a provision of this code or fails to comply with any of the requirements thereof or who erects, constructs, alters or repairs a building or structure in violation of the *approved construction documents* or directive of the *building official*, or of a *permit* or certificate issued under the provisions of this code, be guilty of a misdemeanor and shall be subject to the penalties and fines specified in Section 1-15 of the City Code, except violations of Chapter 36 of the *International Building Code* will be civil infractions subject to the penalty provisions of Section 1-15(f) of the City Code. Each day that a violation continues shall be deemed a separate offense.

- (17) A new **Section 114.5 Work commencing before permit issuance**, is hereby added to read as follows:

114.5 Work commencing before permit issuance. In addition to the penalties set forth in Section 114.4, any person or firm who, before obtaining the necessary *permit(s)*, commences any construction of, or work on, a building, structure, electrical, gas, mechanical or plumbing system that is not otherwise exempt from obtaining a *permit*, shall be subject to a fine in addition to the standard prescribed *permit* fee. Said fine shall be equal in amount to the *permit* fee, except that it shall not be less than \$50 nor more than \$1,000 for the first such violation. A person or firm committing the same such violation repeatedly shall be subject to a fine equal to double the amount of the *permit* fee or double the amount of the fine imposed for the preceding violation, whichever is greater, for each such subsequent violation committed within 180 days of a previous violation. Said fines may be appealed to the City Manager, or his or her designee, pursuant to Chapter 2, Article VI of the City Code.

- (18) **Section 202, DEFINITIONS**, is hereby amended to modify, or add, in alphabetical order, the following definitions:

...

COMMISSIONING. A process to verify and document that the selected *building* and systems have been designed, installed, and function in accordance with the *construction documents*, manufacturers' specifications, and minimum code requirements.

...

DWELLING. A building used exclusively for residential occupancy and for permitted accessory uses, including single-family dwellings, two-family dwellings and multi-family dwellings. The term *dwelling* shall not include hotels, motels, homeless shelters, seasonal overflow shelters, tents or other structures designed or used primarily for temporary occupancy. Any dwelling shall be deemed to be a principal building.

DWELLING UNIT. One or more rooms and a single kitchen and at least 1 bathroom, designed, occupied or intended for occupancy as separate quarters for the exclusive use of a single family for living, cooking and sanitary purposes, located in a single-family, two-family or multi-family dwelling or mixed-use building.

...

FAMILY. Any number of persons who are all related by blood, marriage, adoption, guardianship or other duly authorized custodial relationship, and who live together as a single housekeeping unit and share common living, sleeping, cooking and eating facilities.

...

GRADE (ADJACENT GROUND ELEVATION). The lowest point of elevation of the finished surface of the ground, paving or sidewalk between the building and the property line or, when the property line is more than 5 feet (1.524 m) from the building, between the building and a line 5 feet (1.524 m) from the building.

...

ROOM, SLEEPING (BEDROOM). A habitable room within a *dwelling* or other housing unit designed primarily for the purpose of sleeping. The presence of a bed, cot, mattress, convertible sofa or other similar furnishing used for sleeping purposes shall be prima facie evidence that such space or room is a sleeping room. The presence of closets or similar storage facilities shall not be considered relevant factors in determining whether or not a room is a sleeping room.

...

TOWNHOUSE. A single-family *dwelling unit* constructed as part of a group of two or more attached individual *dwelling units*, each of which is separated from the other from the foundation to the roof and is located entirely on a separately recorded and platted parcel of land (site) bounded by property lines, which parcel is deeded exclusively for such single-family dwelling.

...

VOLATILE ORGANIC COMPOUND (VOC): Any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions. VOCs include a variety of chemicals, some of which may have short-and long-term adverse health effects emitted as gases from certain solids or liquids.

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- (19) **Section 310.4.1 Care facilities within a dwelling** is hereby retained in its entirety with the following amendments:

310.4.1 Care facilities within a dwelling. Care facilities for five or fewer persons receiving care that are within a single-family dwelling are permitted to comply with the International Residential Code.

- (20) **Section 419.1 General** is hereby retained in its entirety with the following revision:

419.1 General.

A *live/work unit* shall comply with Sections 419.1 through 419.9.

Exception: Dwelling or sleeping units that include an office that is less than 20 percent of the area of the *dwelling unit* are permitted to be classified as *dwelling units* with accessory occupancies in accordance with Section 508.2.

- (21) A new **Section 501.3 Premises Identification** is hereby added to read as follows:

501.3 Premises Identification During Construction. The approved *permit* number and street address number shall be displayed and be plainly visible and legible from the public street or road fronting the property on which any building is being constructed or remodeled.

- (22) **Section 505.2.1 Area Limitation** is hereby retained in its entirety with the addition of a new exception number 4 to read as follows:

...

4. Within individual dwelling units of Group R occupancies, the maximum aggregate area of a *mezzanine* may be equal to one-half of the area of the room in which it is located, without being considered an additional story. The *mezzanine* may be closed to the room in which it is located as long as exits from the *mezzanine* are in conformance with Chapter 10.

- (23) **Section 705.3 Buildings on the same lot** is hereby retained in its entirety with the following amendment adding a third paragraph after the numbered **Exceptions**, to read as follows:

...

Lines or walls that are established solely to delineate individual portions of a building or of a planned unit development (PUD) need not be considered as property lines for the purposes of this code, provided that such building is entirely located on property which is under common ownership and further provided that required distances, set forth in Section 503.1.2 for assumed property lines between buildings located on the same property, are maintained.

- (24) **Table 707.3.10 Fire areas**, is hereby retained in its entirety with the following amendments:

Table 707.3.10

FIRE-RESISTANCE RATING REQUIREMENTS FOR FIRE BARRIERS, FIRE WALLS OR HORIZONTAL ASSEMBLIES BETWEEN FIRE AREAS

OCCUPANCY GROUP	FIRE-RESISTANCE RATING (hours)
H-1, H-2	1
F-1, H-3, S-1	1
A, B, E, F-2, H-4, H-5, I, M, R, S-2	1
U	1

- (25) **Section 902.1.1 Access** is hereby retained in its entirety with the following amendments:

902.1.1 Access. Automatic sprinkler system risers, fire pumps and controllers shall be provided with ready access. Where located in a fire pump room or automatic sprinkler system riser room, the door shall be permitted to be locked provided that the key is available at all times. The door opening width shall be 32” clear or as wide as the largest piece of equipment, whichever is larger.

(26) **Section 903.2.1.1 Group A-1** is hereby retained in its entirety with the following revision:

903.2.1.1 Group A-1. An automatic sprinkler system shall be provided throughout stories containing Group A-1 occupancies and all stories from the Group A-1 occupancy to and including the levels of the exit discharge serving that occupancy where one of the following conditions exist:

1. The *fire area* exceeds 5000 square feet (464.5 m²).
The *fire area* has an *occupant load* of 300 or more.
3. The *fire area* is located on a floor other than a *level of exit discharge* serving such occupancies.
4. The *fire area* contains a multitheater complex.

(27) **Section 903.2.1.3 Group A-3** is hereby retained in its entirety with the following revision:

903.2.1.3 Group A-3. An automatic sprinkler system shall be provided throughout stories containing Group A-3 occupancies and all stories from the Group A-3 occupancy to and including the levels of the exit discharge serving that occupancy where one of the following conditions exist:

1. The *fire area* exceeds ~~12,000~~ 5000 square feet (464.5 m²).
The *fire area* has an *occupant load* of 300 or more.
1. The *fire area* is located on a floor other than a *level of exit discharge* serving such occupancies.

(28) **Section 903.2.1.4 Group A-4** is hereby retained in its entirety with the following revision:

903.2.1.4 Group A-4. An *automatic sprinkler system* shall be provided throughout stories containing Group A-4 occupancies and all stories from the Group A-4 occupancy to and including the levels of the exit discharge serving that occupancy where one of the following conditions exist:

1. The *fire area* exceeds 5000 square feet (464.5 m²).
The *fire area* has an occupant load of 300 or more.
3. The *fire area* is located on a floor other than a *level of exit discharge* serving such occupancies.

(29) A new **Section 903.2.1.8 Group B** is hereby added to read as follows:

903.2.1.8 Group B. An *automatic sprinkler system* shall be provided for *fire areas* containing Group B occupancies when the *fire area* exceeds 5000 square feet (464.5 m²).

- (30) **Section 903.2.3 Group E** is hereby retained in its entirety with the following revision:

903.2.3 Group E. An *automatic sprinkler system* shall be provided for Group E occupancies as follows:

1. Throughout all Group E *fire areas* greater than 5000 square feet (464.5 m²) in area.

Throughout every portion of educational buildings below the lowest *level of exit discharge* serving that portion of the building.

Exception: An *automatic sprinkler system* is not required in any area below the lowest *level of exit discharge* serving that area where every classroom throughout the building has not fewer than one exterior exit door at ground level.

1. The group E fire area has an occupant load of 300 or more.

- (31) **Section 903.2.4 Group F-1** is hereby retained in its entirety with the following revision:

903.2.4 Group F-1. An *automatic sprinkler system* shall be provided throughout all buildings containing a Group F-1 occupancy where one of the following conditions exists:

1. A Group F-1 *fire area* exceeds 5000 square feet (464.5 m²).

A Group F-1 *fire area* is located more than three stories above *grade plane*.

3. The combined area of all Group F-1 fire areas on all floors, including any mezzanines, exceeds 24,000 square feet (2230 m²).

2. A Group F-1 occupancy used for the manufacture of upholstered furniture or mattresses exceeds 2500 square feet (232 m²).

...

- (32) A new **Section 903.2.4.2 Group F-2** is hereby added to read as follows:

903.2.4.2 Group F-2. An *automatic sprinkler system* shall be provided throughout all buildings containing a Group F-2 occupancy where one of the following conditions exists:

1. A Group F-2 *fire area* exceeds 5000 square feet (464.5 m²).

A Group F-2 *fire area* is located more than three stories above *grade plane*.

3. The combined area of all Group F-2 fire areas on all floors, including any mezzanines, exceeds 24,000 square feet (2230 m²).

- (33) **Section 903.2.6 Group I** is hereby retained in its entirety with the following amendments:

903.2.6 Group I. An *automatic sprinkler system* shall be provided throughout buildings with a Group I *fire area*.

Exceptions:

1. An *automatic sprinkler system* is not required where Group I-4 day care facilities are at the *level of exit discharge* and where every room where care is provided has not fewer than one exterior exit door and the *fire area* does not exceed 5000 square feet (464.5 m²).

2. In buildings where Group I-4 day care is provided on levels other than the *level of exit discharge*, an *automatic sprinkler system* in accordance with Section 903.3.1.1 shall be installed on the entire floor where care is provided, all floors between the level of care and the *level of exit discharge*, and all floors below the *level of exit discharge* other than areas classified as an open parking garage.

- (34) **Section 903.2.7 Group M** is hereby retained in its entirety with the following revision:

903.2.7 Group M. An *automatic sprinkler system* shall be provided throughout buildings containing a Group M occupancy where one of the following conditions exists:

1. A Group M *fire area* exceeds 5000 square feet (464.5 m²).

A Group M *fire area* is located more than three stories above *grade plane*.

3. The combined area of all Group M fire areas on all floors, including any mezzanines, exceeds 24,000 square feet (2230 m²).

4. A Group M occupancy used for the display and sale of upholstered furniture or mattresses exceeds 5000 square feet (464 m²).

...

- (35) **Section 903.2.9 Group S-1** is hereby retained in its entirety with the following revision:

903.2.9 Group S-1. An *automatic sprinkler system* shall be provided throughout all buildings containing a Group S-1 occupancy where one of the following conditions exists:

1. A Group S-1 *fire area* exceeds 5000 square feet (464.5 m²).

A Group S-1 *fire area* is located more than three stories above *grade plane*.

3. The combined area of all Group S-1 *fire areas* on all floors, including any mezzanines, exceeds 24,000 square feet (2230 m²).
4. A Group S-1 *fire area* used for the storage of commercial motor vehicle where the *fire area* exceeds 5000 square feet (464 m²).
5. A Group S-1 occupancy used for the storage of upholstered furniture or mattresses exceeds 2500 square (232m²).

(36) **Section 903.2.9.1 Repair Garages** is hereby retained in its entirety with the following revisions:

903.2.9.1 Repair garages.

An *automatic sprinkler system* shall be provided throughout all buildings used as repair garages in accordance with Section 406, as shown:

1. Buildings having two or more *stories above grade plane*, including basements, with a *fire area* containing a repair garage exceeding 5000 square feet (464.5 m²).

Buildings not more than one *story above grade plane*, with a *fire area* containing a repair garage exceeding 5000 square feet (464.5 m²).

3. Buildings with repair garages servicing vehicles parked in basements.
4. A Group S-1 *fire area* used for the repair of commercial motor vehicles where the *fire area* exceeds 5000 square feet (464 m²).

...

(37) **Section 903.2.10 Group S-2 enclosed parking garages** is hereby retained in its entirety with the following revision:

903.2.10 Group S-2. An *automatic sprinkler system* shall be provided throughout all buildings containing a Group S-2 occupancy where one of the following conditions exists:

1. A Group S-2 *fire area* exceeds 5000 square feet (464.5 m²).

A Group S-2 *fire area* is located more than three stories above *grade plane*.

Exception: *Open Parking Garages*

(38) **Section 903.2.11.1.3 Basements** is hereby retained in its entirety with the following revision:

903.2.11.1.3 Basements. Where any portion of a *basement* is located more than 75 feet (22 860 mm) from openings required by Section 903.2.11.1, the *basement* shall be equipped throughout with an *approved automatic sprinkler system*.

(39) **Section 903.3.1.2 NFPA 13R sprinkler systems** is hereby amended to read as follows:

903.3.1.2 NFPA 13R sprinkler systems. *Automatic Sprinkler systems* in Group R occupancies shall be installed throughout in accordance with NFPA 13R Section 903.3.1.1.

Exception: NFPA 13R is allowed when the following conditions exist:

1. The building does not contain more than 6 individual *dwelling units* and the units are separated from each other with a 1 hour fire barrier to roof deck.

The building does not contain more than 12 individual *dwelling units* and is divided into no more than 6 individual dwellings units (complying with number 1 above) by a minimum 2 hour fire barrier.

The number of stories of Group R occupancies constructed in accordance with Sections 510.2 and 510.4 shall be measured from the horizontal assembly creating separate buildings.

(40) **Section 907.2.10 Single- and multiple-station smoke alarms** is hereby retained in its entirety with the following amendment to add a new second paragraph thereto to read as follows:

...

When one or more sleeping rooms are added or created in existing Group R Occupancies, the entire building shall be provided with smoke detectors located and installed as required for new Group R Occupancies as described herein.

...

(41) **Section 1009.6 Areas of refuge** is hereby retained in its entirety with the following amendments:

1009.6 Areas of refuge *Areas of refuge* are not required in buildings not more than 4 stories above *grade plane*. Every required *area of refuge* shall be accessible from the space it serves by an *accessible means of egress*.

...

(42) **Section 1009.8 Two-way communication** is hereby retained in its entirety with the following amendments to **Exception #1**:

...

Exception:

1. Two-way communication systems are not required at the elevator of buildings not required to provide *areas of refuge* in accordance with section 1009.6.

...

- (43) **Section 1010.1.5 Floor elevation** is hereby retained in its entirety with the addition of a new Exception 7 to read as follows:

...

7. Exterior doors serving individual *dwelling units*, other than the main entrance door to a *dwelling unit*, may open at one intervening exterior step that is equally spaced between the interior floor level above and exterior landing below, provided that the step has a minimum tread depth of 12 inches, a maximum riser height of 7 ¾ inches (19.68cm), and a minimum width equal to the door width, and further provided that the door does not swing over the step.

- (44) **Section 1010.1.5 Floor elevation** is further amended by the addition of the following paragraph after the Exceptions:

...

All exterior steps, slabs, walks, decks and patios serving as exterior door landings or exterior stairs shall be adequately and permanently secured in place by *approved* methods to prevent such landings or stairs from being undermined or subject to significant displacement due to improper placement of supporting backfill or due to inadequate anchoring methods.

- (45) **Section 1011.11 Handrails** is hereby retained in its entirety with the following amendments:

1011.11 Handrails. *Flights of stairways* of more than 1 riser shall have *handrails* on each side and shall comply with Section 1014. Where glass is used to provide the *handrail*, the *handrail* shall also comply with Section 2407.

Exceptions:

1. *Flights of stairways* within dwelling units and *spiral stairways* are permitted to have a *handrail* on one side only.
2. Decks, patios and walkways that have a single change in elevation where the landing depth on each side of the change of elevation is greater than what is required for a landing do not require *handrails*.

3. In Group R-3 occupancies, a change in elevation consisting of a single riser at an entrance or egress door does not require *handrails*.
4. Changes in room elevations of three or fewer risers within dwelling units and sleeping units in Group R-2 and R-3 do not require *handrails*.

(46) **Section 1015.8 Window openings** is hereby retained in its entirety with the following amendments to the first paragraph to read as follows:

1015.8 Window openings. Windows in Group R-2 and R-3 buildings including *dwelling units*, where the top of the sill of an operable window opening is located less than 24 inches (610 mm) above the finished floor and more than 72 inches (1829 mm) above the finished grade or other surface below on the exterior of the building, shall comply with one of the following:

...

(47) A new **Section 1015.9 Below grade openings** is hereby added to read as follows:

1015.9 Below grade openings. All area wells, stair wells, window wells and light wells attached to any building that are located less than 36 inches from the nearest intended walking surface and deeper than 30 inches below the surrounding ground level shall have guards or approved covers for fall protection.

(48) **Section 1030.1 General** is hereby retained in its entirety with the following revisions to **Exceptions 1**:

...

Exceptions:

1. *Basements* with a ceiling height of less than 72 inches (1828.8 mm) and do not contain habitable space shall not be required to have *emergency escape and rescue openings*.

...

4. Within individual *dwelling* and *sleeping unites* in groups R-2 and R-3, where the building is equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1, *sleeping rooms* in basements shall not be required to have *emergency escape and rescue openings* provided that the basement has one of the following:
 - 4.1 One *means of egress* and one *emergency escape and rescue opening*.
 - 4.2 Two *means of egress*.

(49) A new **Section 1030.3.1 Minimum height from floor** is hereby added to read as follows:

1030.3.1 Minimum height from floor. Emergency escape and rescue window openings that are located more than 72 inches (1829 mm) above the finished grade shall have a sill height of not less than 24 inches (609 mm) measured from the finished interior side floor.

Exception:

Emergency escape and rescue openings located over a roof surface with a slope of 4:12 or less and extending a minimum of 5 feet horizontally outward from the window.

- (50) **Section 1030.4 Window Wells** is hereby retained in its entirety with amendments adding new exceptions to read as follows:

...

Exception:

With the window in the full open position, the bottom window well step may encroach a maximum of 12 inches (304 mm) into the minimum horizontal projection, provided the well meets the criteria of 1 and 2 below:

1. The bottom of the well is not less than 36 inches wide (914 mm), centered horizontally on the openable portion of the *emergency escape and rescue* door or window, and

An unobstructed clear horizontal projection of 36 inches (914 mm) is maintained at the centerline of the openable portion of the emergency escape and rescue door or window.

- (51) A new **Section 1030.6 Drainage** is hereby added to read as follows:

1030.6 Drainage. All window wells shall be designed for proper drainage by connecting to the building's foundation drainage system required by Section 1805.4.2 or by an approved alternative method. The inlet to the drainage system shall be a minimum of 4 inches (101 mm) below the window sill. Where no drains are required, the window well surface shall be a minimum of 4 inches (101 mm) below the window sill.

Exceptions:

1. A drainage system for window wells is not required when the foundation is on well-drained soil or sand-gravel mixture soils as determined by the foundation engineer of record.

A drainage system is not required for new window wells on additions to existing dwellings.

- (52) **Section 1102.1 Design** is hereby retained in its entirety with the following amendments:

1102.1 Design. Buildings and facilities shall be designed and constructed to be *accessible* in accordance with this code and the most recently published edition of ICC A117.1 as referenced by the *building official*.

- (53) **Section 1103.1 Where required** is hereby retained in its entirety with the following amendment to add a new second paragraph to read as follows:

...

When the Building Review Board considers granting exceptions or variances either to this chapter pursuant to Section 113 of this code or to Colorado Statutes pursuant to Section 9-5-102, C.R.S., it shall require the applicant requesting the exception or variance to demonstrate that the application of a particular standard or specification relating to access for persons with disabilities would impose an extraordinary hardship on the subject property. For the purposes of this Section, an extraordinary hardship shall mean a substantial and unusual hardship that is the direct result of unique physical site conditions such as terrain, topography or geology, or that is the direct result of other unique or special conditions encountered on the subject property, but that are not typically encountered elsewhere in the City. Constraints, complications or difficulties that may arise by complying with this chapter and/or with the statutory standards for *accessibility* but that do not constitute an extraordinary hardship shall not serve to justify the granting of an exception or variance. The granting of a variance under this Section does not relieve the applicant from its obligations under the Americans with Disabilities Act, or any other applicable law or regulation that addresses accessibility.

- (54) **Section 1107.2 Design** is hereby retained in its entirety with the following amendment to add a new second and a new third paragraph to read as follows:

...

When any building or buildings, classified as Group R, Division 1 or Group R, Division 2 Occupancy, are constructed as a single building project (or any phase thereof) on any one site, and such building project (or phase) contains one or more *accessible* dwelling units as required by this chapter or Colorado law, said building project (or phase) shall be constructed such that all such required *accessible* dwelling units in such building project (or phase) provide the same functional features as are provided in the nonaccessible units in such building project (or phase). Furthermore, all such functional features except dwelling unit bedroom-types shall be provided in the same proportion as in the nonaccessible units. Not less than 50 percent of the required *accessible* dwelling units shall be constructed with the distribution of *accessible* dwelling unit bedroom-types being proportionally the same as the distribution of nonaccessible dwelling unit bedroom-types, provided that at least one of each dwelling unit bedroom-type constructed in the building project (or phase) shall be an *accessible* dwelling unit.

For purposes of this Section 1107.2, the following definitions shall apply. *Dwelling unit bedroom-type* shall mean the number of bedrooms within the dwelling unit. *Functional feature* shall mean a closet, garage, carport, patio, deck, additional room (such as a bedroom, bathroom, den, storeroom, laundry or similar room) or any other significant feature built at the time of original construction that offers occupants improved convenience or comfort. Aesthetic or decorative features such as colors, architectural design elements, trim and finish materials, decorative heating appliances not providing the primary comfort heat source, lighting fixture style, cabinet and hardware style, plumbing fixture style, the type and location of windows and glazed lights, or any similar miscellaneous features shall not be construed as functional features.

- (55) **Table 1107.6.1.1 Accessible Dwelling Units and Sleeping Units** is hereby deleted in its entirety and the following **Table 1107.6.1.1** is hereby added in lieu thereof:

TABLE 1107.6.1.1
ACCESSIBLE DWELLING UNITS AND SLEEPING UNITS

Total number of units provided	Minimum required number of accessible units without roll-in showers	Minimum required number of accessible units with roll-in showers ^a	Total number of required accessible units
1 - 25	1	0	1
26 - 50	1	1	2
51 - 75	2	2	4
76 - 100	4	2	5
101 - 150	5	2	7
151 - 200	6	2	8
201 - 300	7	3	10
301 - 400	8	4	12
401 - 500	9	4	13
501 - 1000	2% of total	1% of total	3% of total
Over 1000	20, plus 1 for each 100, or fraction thereof, over 1000	10, plus 1 for each 100, or fraction thereof, over 1000	30, plus 1 for each 100, or fraction thereof, over 1000

^aRequired roll-in showers shall be a minimum of 36" by 60" interior dimension.

- (56) A new **Section 1107.6.2.1.1 R-2 accessible roll-in showers** is added to read as follows:

1107.6.2.1.1 R-2 accessible roll-in showers. All roll-in showers provided in R-2 accessible, type A, or B units, shall provide a minimum interior dimension of 36"x60".

- (57) A new **Section 1202.4.5 Under below grade floors** is hereby added to read as follows:

1202.4.5 Under below grade floors. Mechanical *ventilation systems* for spaces under below grade floors shall be designed by a professional engineer, addressing moisture controls and by approved methods considering the impact of negative pressures created by exhaust fans, clothes dryers and similar appliances.

(58) A new **Section 1210 Radon-Resistant Construction** is hereby added to read as follows:

1210 – Radon-resistant construction New R-2, R-3, R-4 Occupancies and new I-1 and I-2 nursing homes shall provide radon reduction systems complying with the 2018 International Residential Code, Appendix F, as amended by the City of Fort Collins.

(59) A new **Section 1404.13.2 Fenestration installation** is added to read as follows:

...

1404.13.2 Fenestration installation. For all new construction and additions, all new fenestration installations shall be in accordance with American Architectural Manufacturers Association (AAMA) Standards/Specifications for Windows, Doors and Skylights and shall be supervised and inspected by an individual certified as an Installation Master by Architectural Testing, Inc. (ATI), or other nationally recognized agency.

(60) A new **Section 1404.14.1 Vinyl siding quality control** is hereby added to read as follows:

1404.14.1 Vinyl siding quality control. Vinyl siding shall be certified and labeled as conforming to the requirements of ASTM D 3679 by an *approved* quality control agency.

(61) A new **Section 1404.14.2 Vinyl siding on new buildings** is hereby added to read as follows:

1404.14.2 Vinyl siding on new buildings. Vinyl sidings on new buildings shall be installed over one-hour fire-rated assemblies listed for exterior fire exposure, in both the vertical and horizontal plane.

(62) A new **Section 1404.18.1 Polypropylene siding on new buildings** is hereby added to read as follows:

1404.18.1 Polypropylene siding on new buildings. Polypropylene on new buildings shall be installed over one-hour fire-rated assemblies listed for exterior fire exposure, in both the vertical and horizontal plane.

(63) **Section 1502.1 General** is hereby retained in its entirety with the following revisions:

1502.1 Roof Drainage General. All buildings shall have a controlled method of water disposal from roofs that will collect and discharge roof drainage to the ground surface at least 5 feet (1524 mm) from foundation walls or to an *approved* drainage system. Design and installation of roof drainage systems shall comply with Section 1502 and 1503 of this code and Sections 1106 and 1108, as applicable, of and the *International Plumbing Code*.

...

- (64) **Section 1504.1.2 Impact resistance of asphalt shingles** is added to read as follows:

1504.1.2 Impact resistance of asphalt shingles. Asphalt shingles shall be Class 4 impact resistant and be tested in accordance with UL 2218 and installed in accordance with the manufacturer's installation instructions.

- (65) **Section 1505.1 General** is hereby deleted in its entirety and the following is hereby added in lieu thereof:

1505.1 New Construction. The *roof-covering* classification on any new structure regulated by this code shall be Class A.

Exceptions:

1. Noncombustible *roof coverings* as defined in Section 1507.3, 1507.4, 1507.5 may be applied in accordance with the manufacturer's specifications in place of a fire-retardant roofing assembly.

Any Class B or Class C *roof covering* may be applied on any new construction that is added to an existing building classified as a Group R, Division 3 Occupancy, provided the roof extremities of such existing building and new construction are located a minimum distance of 5 feet from the nearest adjacent property line and are a minimum distance of 10 feet from any other building.

3. Skylights and sloped glazing that comply with Chapter 24 or Section 2610.

- (66) **Table 1505.1, Minimum Roof Covering Classifications for Types of Construction**, is hereby deleted in its entirety.

- (67) **Section 1507.2.1 Deck requirements** is hereby retained in its entirety with the following amendments:

1507.2.1 Deck Requirements. Asphalt shingles shall be fastened to solidly sheathed decks. Gaps in the solidly sheathed or plank decking shall not exceed 1/8 inch.

- (68) A new **Section 1507.2.8.4 Sidewall flashing** is hereby added to read as follows:

1507.2.8.4 Sidewall flashing. Flashing against a vertical sidewall shall be by the step-flashing method. The flashing shall be a minimum of 4 inches (102 mm) high and 4 inches (102 mm) wide. At the end of the vertical sidewall the step flashing shall be turned out in a manner that directs water away from the wall and onto the roof and/or gutter.

Exception: Re-roofing where step flashing would require removal of siding material, provided adequate flashing is installed.

- (69) **Section 1511.1 General** is hereby retained in its entirety with the following amendment adding two paragraphs at the end after the Exceptions, to read as follows:

...

No portion of an existing nonrated *roof covering* may be permanently replaced or covered with more than one square of nonrated *roof covering*.

Any existing *roof covering* system may be replaced with a *roof covering* of the same materials and classification, provided the replacement *roof covering* has a minimum rating of Class C.

- (70) A new **Section 1608.2.1 Roof snow load**, is hereby added to read as follows;

1608.2.1 Roof Snow Loads. Roof snow loads shall be a minimum of 30 psf.

- (71) **Section 1609.3 Basic design wind speed** is hereby deleted in its entirety and the following is hereby added in lieu thereof:

1609.3 Basic wind speed. The Basic Design Wind Speed, V, in mph, for the determination of the wind loads shall be 140 miles per hour (Ultimate) for Risk Category II, 130 miles per hour (Ultimate) for Risk Category I, 150 miles per hour (Ultimate) for Risk Category III & IV or shall comply with the Colorado Front Range Gust Map – ASCE 7-10 Compatible, published by the Structural Engineers Association of Colorado (dated November 18, 2013).

- (72) Section 1705.5.2 **Metal-plate-connected wood trusses** is hereby retained in its entirety with the following amendments:

1705.5.2 Metal-plate-connected wood trusses. For wood trusses with a clear span of 60 feet (18 288 mm) or greater, the special inspector shall verify during construction that the temporary installation restraint/bracing is installed in accordance with the approved truss submittal package.

- (73) A new **Section 1804.4.1 Final Grading** is hereby added to read as follows:

1804.4.1 Final Grading. Final grading adjacent to the foundation and above utility trenches shall be compacted sufficiently and in such a manner that it is not undermined or subject to significant settlement or displacement due to improper placement of backfill.

- (74) **Section 2406.4.7 Glazing adjacent to the bottom stair landing** is hereby retained in its entirety with the following revisions:

2406.4.7 Glazing adjacent to stair landings. Glazing adjacent to the stair landings where the glazing is less than 36 inches (914 mm) above the landing and within a 60-inches (1524 mm) horizontally of the top or bottom tread shall be considered a hazardous location.

Exception: The glazing is protected by a guard complying with Sections 1013 and 1607.8 where the plane of the glass is more than 18 inches (457 mm) from the guard.

- (75) A new **Section 2902.1.4 Touch-free toilet facilities** is hereby added to read as follows:

2902.1.4 Touch-free toilet facilities. Toilet facilities installed for occupancies associated with food preparation or food service to the public shall be provided with:

1. Automatic touch-free water control valves on lavatories.

Automatic touch-free paper towel dispensers.
3. Toilet facilities exit doors that allow exiting without requiring touching by hand of any door hardware such as knobs, levers, sliding bolts, latches and similar devices.

Exception: Toilet facilities designed as a single occupant use may be provided with exit door locking hardware to afford privacy, doors may swing inward or outward.

- (76) **Section 2902.2 Separate facilities** is hereby retained in its entirety with the following revisions:

2902.2 Separate facilities. Where plumbing fixtures are required, separate facilities shall be provided for each sex.

Exceptions:

1. Separate facilities shall not be required for *dwelling units* and *sleeping units*.

Separate facilities shall not be required in structures or tenant spaces with a total *occupant load*, including both employees and customers, of 30 or fewer.
3. Separate facilities shall not be required in mercantile occupancies in which the maximum occupant load is 100 or less.
4. Separate facilities shall not be required in business occupancies in which the maximum occupant load is 100 or fewer.
5. Multiple single-user Unisex facilities may be used provided that the total fixture count as calculated per 2902.1 is satisfied.

- (77) **Section 2902.3.1 Access** is hereby retained in its entirety with the following revisions:

2902.3.1 Access. The route to the public toilet facilities required by Section 2902.3 shall not pass through kitchens, storage rooms, closets, or spaces used for similar purposes. A clearly signed unobstructed access path shall be provided, leading directly from the public customer area to the toilet facilities. Access to the required facilities shall be from within the building or from the exterior of the building. Routes shall comply with the accessibility section of this code. The public shall have access to the required toilet facilities at all times that the building is occupied and without the need to ask for permission to use the toilet facilities.

- (78) A new **Chapter 36 Sustainable Building Construction Practices** is hereby added to read as follows:

Chapter 36 Sustainable *Building Construction Practices*

3601 General

3601.1 Scope. The provisions of this chapter shall govern sustainable building construction practices for new construction and additions and remodels over 5,000 square feet that require a building permit, unless otherwise noted.

3602 Resource Efficiency

3602.1 Construction waste management. For remodels and additions over 2,500 square feet, and for all new buildings, a construction waste management plan acceptable to the building official is required at the time of application for a building permit. The construction waste management plan shall be implemented and conspicuously posted on the construction site. All concrete, asphalt, masonry, wood, metals and cardboard shall be recycled. Compliance shall be certified by inspection and documentation and signed final construction waste management plans. Substantive changes to the plan shall be subject to prior approval by the building official. All roofing permits are required to submit a final waste management plan and documentation.

3602.1.1 Building demolitions. *Buildings* or portions of *buildings* that are removed shall be processed in such a way as to safely remove all asbestos and lead paint contaminants. For all demolitions, excluding non-structural demolitions under 1000 sq.ft. a demolition waste management plan acceptable to the building official is required at the time of application for a demolition permit. All metals, asphalt, concrete and masonry that are free of asbestos and lead paint shall be recycled, and where possible, all remaining materials, such as doors, windows, cabinets, fixtures, and wood, shall be recycled. Compliance shall be certified by inspection, documentation, and signed final demolition waste management plans. Substantive changes to the plan shall be subject to prior approval by the building official.

3602.1.2 Recycle chute. New buildings provided with trash chutes or existing buildings renovated that add a new trash chute shall provide an additional equivalent chute adjacent to the trash chute for the purpose of recycling. Separate bins shall be provided in the termination room to prevent recycled items from entering the trash bin. Chutes must be appropriately labeled “Landfill” and “Recycle”.

3603 Indoor Environmental Quality (IEQ)

3603.1 Indoor Air Quality (IAQ)

3603.1.1 Heating, Ventilating, and Air Conditioning Design. Prior to and during construction, reasonable efforts shall be made to minimize the release of particulates and accumulation of debris, and the specific requirements of this Section shall apply.

3603.1.1.1 Air handling system access. The arrangement and location of air handling system components including, but not limited to, air handler units, fans, coils and condensate pans, shall allow access for cleaning and *repair* of the air handling surfaces of such components. Piping, conduits, and other *building* components shall not be located so as to obstruct the required access.

3603.1.1.2 Durability of air handling surfaces. Surfaces exposed to airflow within air handling systems shall be constructed of materials that are resistant to deterioration and will not break away, crack, peel, flake off, or show evidence of delamination or continued erosion when tested in accordance with the erosion test in UL 181.

3603.1.1.3 Airstream surfaces. Materials exposed to airflow within ducts, within air plenums, or on top of suspended ceilings, shall not break away, crack, peel, flake off, or show evidence of delamination or continued erosion when tested in accordance with the erosion test in UL 181.

3603.1.2 New *Building* and first time completed tenant finish spaces pollutant flush-out. After all interior finishes are installed, the *building* or space shall be flushed out by ventilating at a minimum rate of 0.30 cfm per ft² of outside air or the design outdoor airflow rate determined from the IMC, whichever is greater, for at least 14 days while maintaining an internal temperature of at least 60°F, and relative humidity not higher than 60 percent. Occupancy shall be permitted to start 1 day after start of the flush-out, provided that flush-out continues for the full 14 days. The *building* or space shall not be “baked out” by increasing the temperature of the space above the occupied set point.

Exception: All residential *buildings*.

3603.2 Low-volatile organic compound (VOC) materials. All construction materials, including but not limited to floor coverings and site-applied finishes, including sealants and adhesives, resilient flooring, carpeting and pad, site-applied paints, stains and varnishes, structural wood panels, hardwood veneer plywood, particle board and fiber board building products, and insulation shall meet specified *volatile organic compound*

(VOC) emissions limits in accordance with relevant standards California Department of Public Health (CDPH) 01350; GREENGUARD Environmental Institute GGPS.001 standard for *building* materials and finishes, and Green Seal® standards. Documentation demonstrating compliance shall be required with delivery of such materials and shall be available for inspection.

Exception: For *alterations to existing buildings*, carpeting and pad, structural wood panels, hardwood, veneer plywood, particle board and fiber board building products and insulation are not subject to this requirement.

3603.3 Acoustical control. Minimum requirements for exterior-to-interior sound transmission, interior sound transmission, and background sound levels in new construction and additions, except as noted hereunder, shall be provided as specified herein.

3603.3.1 Sound transmission. *Buildings* and tenant spaces shall comply with the following sound transmission requirements:

Exceptions:

1. Portions of *buildings* or *structures* that have the interior environment open to the exterior environment.

Concession stands and toilet facilities in Group A-4 and A-5 occupancies.

3603.3.1.1 Exterior sound transmission. Where a Group A1, A3, E and I occupancy *building*, a Group B occupancy *building* used for educational purposes, or a Group R occupancy *building* is constructed at a location listed herein, the wall assemblies making up the *building thermal envelope* or professional analysis of effected walls shall have a composite sound transmission class (STC_c) rating of 39 or greater in the following locations:

1. within 500 feet (152 m) of a multi-lane highway designed for high-speed travel by large numbers of vehicles, and having no traffic lights, stop signs, or other regulations requiring vehicles to stop; fire stations; heavy industrial or manufacturing areas or facilities; commercial storage facilities with back-up alarms; outdoor music amphitheatres; or sports arena or stadium;

within 250 feet (76 m) of a roadway containing 4 or more traffic lanes; or

3. within 1,000 feet (305 m) of an active railway.

3603.3.1.2 Interior sound transmission. Interior wall and floor/ceiling assemblies, separating interior rooms and spaces shall be designed in accordance with the following requirements:

1. Wall and floor-ceiling assemblies separating adjacent tenant spaces, tenant spaces and public places, hotel rooms, motel rooms, patient rooms in nursing homes and hospitals, and adjoining classrooms shall have a composite STC rating of 50 or greater.

Wall and floor-ceiling assemblies separating classrooms from rest rooms and showers shall have a composite STC rating of 53 or greater.

3. Wall and floor-ceiling assemblies separating classrooms from music rooms, mechanical rooms, cafeterias, gymnasiums, and indoor swimming pools shall have a composite STC rating of 60 or greater.

Exception: Residential Group R occupancies addressed in Section 1207 of this code.

3603.3.1.4 Outdoor Environmental Quality (OEQ)

3603.3.1.4 Exterior lighting. All building mounted exterior lighting fixtures associated with new buildings shall have the “Fixture Seal of Approval” from the International Dark-Sky Association (IDA) or, meet equivalent criteria approved by the Building Official. Lighting placement shall conform to IDA Model Lighting Ordinance for Lighting Zone LZ-1. Light shall be shielded such that the lamp itself or the lamp image is not directly visible outside the property perimeter. Exterior lighting associated with existing buildings shall comply with the Land Use Code as adopted.

3604 Commissioning, Operations & Maintenance

3604.1 Building commissioning. For new completed and fully occupied buildings or first time completed tenant finish spaces both with a gross floor area of greater than 15,000 ft² (1,395 m²) and *additions* with a gross floor area of greater than 15,000 ft² (1,395 m²), *commissioning* shall be performed in accordance with this Section. A commissioning process shall be incorporated into the design and construction of the *building* project that verifies that the delivered *building* and its components, assemblies, and systems comply with the documented *owner project requirements* (OPR). Procedures, documentation, tools and training shall be provided to the *building* operating staff to sustain features of the *building* assemblies and systems for the service life of the *building*. This material shall be assembled and organized into a systems manual that provides necessary information to the *building* operating staff to operate and maintain all *commissioned* systems identified with the *building* project. The owner shall retain the system manual and final commissioning report described below. The final commissioning report shall be made available to the building official upon request.

The following commissioning activities shall be completed prior to approval:

1. The owner shall designate an approved project *commissioning authority* (CxA) to lead, review, and oversee completion of the *commissioning* process activities.

The owner, in conjunction with the design team as necessary, shall develop the *owner's project requirements* (OPR) to guide the CxA. The OPR shall be distributed to all parties participating in the project programming, design, construction, and operations, and the *commissioning* team members.

3. The design team shall develop the *basis of design* (BOD).
4. The CxA shall:
 - a. review the both the *OPR* and *BOD* for clarity and completeness,
 - b. incorporate construction phase *commissioning* requirements into project specifications and other construction documents developed by the design team,
 - c. develop and implement a *commissioning plan* containing all required forms and procedures for the complete testing of all equipment, systems, and controls included in Section 3604.1.1,
 - d. verify the installation and performance of the systems to be *commissioned*,
 - e. complete a final *commissioning* report satisfactory to the *building official*,
 - f. verify the owner requirements for training operating personnel and *building* occupants are completed, and
 - g. verify that a system manual in a form satisfactory to the *building official* has been prepared. At a minimum, the system manual shall include operations and maintenance documentation and full warranty information and shall provide operating staff the information needed to understand and operate the *commissioned* systems as designed.

Core and shell buildings or spaces not completed shall be commissioned to the extent possible but not less than completing items 1, 2, and 3 in Section 3604.1.1 below.

3604.1.1 Systems. The following systems, if included in the *building* project, shall be *commissioned*:

1. heating, ventilating, air-conditioning, indoor-air-quality, and refrigeration systems and associated controls;
2. *building thermal envelope* systems, components, and assemblies to verify thermal, air, and moisture integrity;
3. all lighting controls and shading controls;
4. service water heating systems;
5. renewable energy systems;
6. background sound levels;

7. cooling towers water use.

Section 3605 Electrical Vehicle Ready. All new buildings that provide on-site parking, 5 percent of total parking spaces shall provide an empty conduit of 3/4 inch minimum, installed from the building electrical panel board to a junction box or capped pipe in a readily accessible location near/at the parking space, capable of supporting a 50 ampere 208/220 volt outlet.

3606 Plumbing Fixture Flow Rate. The maximum water consumption flow rates and quantities for all plumbing fixtures and fixture fittings must comply with Table 604.4 found in City Code Section 5-126.

- (79) *Appendix C GROUP U AGRICULTURAL BUILDINGS* is adopted in its entirety.
- (80) *Appendix E SUPPLEMENTARY ACCESSIBILITY REQUIREMENTS*, is adopted in its entirety.
- (81) *Appendix I PATIO COVERS* is adopted in its entirety.

Introduced, considered favorably on first reading, and ordered published this 18th day of December, A.D. 2018, and to be presented for final passage on the 2nd day of January, A.D. 2019.

Mayor

ATTEST:

City Clerk

Passed and adopted on final reading on the 2nd day of January, A.D. 2019.

Mayor

ATTEST:

City Clerk

NOTICE OF PUBLIC HEARING

NOTICE is hereby given of a public hearing to be held before the City Council of the City of Fort Collins, Colorado, on the 4th day of December, A.D., 2018 at 6:00 p.m., or as soon thereafter as the matter may come on for hearing, in the Council Chambers at the City Hall, 300 LaPorte Avenue, Fort Collins, Colorado for the purpose of considering the adoption of ordinances adopting by reference the *2018 International Building Code*, *2018 International Residential Code*, *2018 International Energy Conservation Code*, *2018 International Mechanical Code*, and the *2018 International Fuel Gas Code*, *2018 International Existing Building Code*, and the *2018 International Pool and Spa Code*, together with local amendments, promulgated by the International Code Council.

Not less than one (1) copy of said Codes has been, and now is on file in the Office of the City Clerk of the City of Fort Collins and is available for public inspection.

The purpose of the International Building Code, International Residential Code, International Energy Conservation Code, International Mechanical Code, the International Fuel Gas Code, 2018 International Existing Building Code, and the 2018 International Pool and Spa Code adopted by said ordinance is to provide for protection of public health and safety and general welfare.

The City of Fort Collins will make reasonable accommodations for access to City services, programs and activities and will make special communication arrangements for persons with disabilities. Please call 221-6515 (V/TDD: Dial 711 for Relay Colorado) for assistance.

This notice is given and published by order of the City of Fort Collins, Colorado.

Dated at Fort Collins, Colorado this 18th day of November, A.D. 2018.

Delynn Coldiron
City Clerk