

## ARTICLE II. BUILDING CODE

### Sec. 18-40. Adoption of *International Building Code* (2018); amendments.

The *International Building Code* (2018), promulgated by the International Code Council, is adopted and incorporated in this article by reference as if fully set forth, except as it is amended by the following provisions of this section. Provisions of this article are in addition to the provisions of the *International Building Code*. The following provisions coinciding with provisions of the *International Building Code* supersede, or delete, when indicated, the corresponding provisions of the *International Building Code*:

All references within the model codes to any building, electrical, gas, mechanical, plumbing, sewage disposal, elevator, energy conservation, or existing building code shall be construed to be a reference to the respective building, electrical, gas, mechanical, plumbing, sewage disposal, elevator, energy conservation, or existing building code specifically adopted by reference in Articles II through XIV of this chapter.

**Chapter 1, Scope and Administration**, is deleted. See Article I of this chapter.

**202 DEFINITIONS.** The following definition has been revised (remainder of Section 202 unamended):

**Historic Buildings.** Any building or structure that is one or more of the following:

1. Listed by the State Historic Preservation Officer or the Keeper of the National Register of Historic Places, in the National Register of Historic Places.
2. Designated as historic under an applicable state or local law.
3. Certified as a contributing resource within a National Register, state designated or locally designated historic district.

The following subsection found in the referenced model code is amended as follows:

**308.2.4 Five or fewer persons receiving custodial care.** A facility such as listed in section 308.2 with five or fewer persons receiving custodial care shall be classified as Group R-3 or shall comply with the International Residential Code.

The following subsection found in the referenced model code is amended as follows:

**308.3.2 Five or fewer persons receiving medical care.** A facility such as listed in section 308.3 with five or fewer persons receiving medical care shall be classified as Group R-3 or shall comply with the International Residential Code.

The following subsection found in the referenced model code is amended as follows:

**310.3.1 Short Term Rental units.** Residential occupancies of occupancy classification R-2, where a maximum of 25% of the units in a building are Short Term Rental units, shall be permitted to be considered primarily non-transient in nature.



The following subsection found in the referenced model code is amended as follows:

**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.

The following subsection found in the referenced model code is amended as follows:

**310.4.2 Lodging houses.** Owner-occupied *lodging houses* (in which the owner lives in common with the guests) with five or fewer *guest rooms* and 10 or fewer total occupants shall be permitted to be constructed in accordance with the *International Residential Code*.

The following section is added to the referenced model code:

## **SECTION 429 PROHIBITED MATERIALS**

**429.1 General.** Building materials containing nickel-zinc ferrite or other similar materials are prohibited in the construction of buildings and other structures if the use of such materials has the effect of blocking wireless public safety communication transmissions.

**Exception:** Materials essential to the structural or fire resistive integrity of the building or structure or as required in medical facilities.

The following section is added to the referenced model code:

## **SECTION 430 PHYSICAL SECURITY FOR DWELLING UNITS**

**430.1 Purpose.** The purpose of this Section is to establish minimum standards that incorporate physical security to make dwelling units resistant to unlawful entry.

**430.1.1 Scope.** This section shall apply to all exterior doors providing direct access into a dwelling unit, where the exterior door is accessible from grade.

### **Exceptions:**

1. Vehicle access doors.
2. Storm or screen doors.

**430.2 Doors.** Doors shall comply with Sections 430.2.1 through 430.2.3.

**430.2.1 Wood doors.** Wood doors shall be of solid core construction such as high-density particleboard, solid wood, or wood block core with a minimum nominal thickness of one and three-fourths inches (1 3/4") at any point.

**Exception:** Solid wood panels shall be a minimum of one inch (1") thick. The tapered portion of the panel that inserts into the groove of the door shall be a minimum of one-quarter inch (1/4") thick. The groove shall be a dado groove or applied molding construction. The groove shall be a minimum of one-half inch (1/2") in depth.



**430.2.2 Steel doors.** Steel doors shall be a minimum nominal thickness of one and three-fourths inches (1 ¾") and shall have a minimal skin thickness of 24 gauge.

**430.2.3 Fiberglass doors.** Fiberglass doors shall be a minimum nominal thickness of one and three-fourths inches (1 ¾") and shall have a minimum skin thickness of one-sixteenth inch (1/16").

**430.3 Door frames.** Door frames shall comply with Sections 430.3.1 through 430.3.4 and shall be installed in accordance with the manufacturer's installation instructions. Door frames shall be installed prior to rough-in inspection.

**430.3.1 Wall framing at door openings.** Door frames shall be set in openings constructed with double studs on each side. Doors with sidelights shall have double stud construction on each side of the door and on each side of the sidelight(s). Horizontal blocking shall be placed between studs at the door lock height for three (3) stud spaces on each side of the door opening.

**Exception:** Installations provided with alternative reinforcing methods as approved by the building official where it is determined that such alternative methods are at least the equivalent of that prescribed with respect to strength and safety.

**430.3.2 Wood frames.** Door jambs shall be a minimum nominal thickness of three-fourths inches (¾") and shall be installed with solid backing in a manner so no void exists between the strike side of the jamb and the frame opening for a vertical distance of twelve inches (12") each side of the strike. Filler material shall consist of solid wood blocking.

**Exception:** Installations provided with alternative reinforcing methods as approved by the building official where it is determined that such alternative methods are at least the equivalent of that prescribed with respect to strength and safety.

**430.3.3 Steel frames.** Steel door frames shall be constructed of 18 gauge or heavier steel with reinforcement at the hinges and strikes. Steel frames shall be anchored to the wall in accordance with manufacturer specifications.

**430.3.4 Sliding doors.** Sliding door assemblies shall be installed to prevent the removal of the panels and the glazing from the exterior. Shims or screws shall be installed in the upper track of doors that slide on the bottom track or doors shall be provided with equivalent protection as approved by the building official.

**430.4 Door hardware.** Door hardware shall comply with Sections 430.4.1 through 430.4.7.

**430.4.1 Hinges.** Hinges for swinging doors shall comply with the following:

- A. A minimum of three (3) four inch (4") hinges shall be installed on each swinging door.



- B. Each hinge shall be attached to the frame with at least two (2) screws, not less than three inches (3") in length and penetrating at least one inch (1") into the nearest stud. Solid wood fillers or shims shall be used to eliminate any space between the wall structure and door frame behind each hinge.

**Exception:** Installations provided with alternative reinforcing methods as approved by the building official where it is determined that such alternative methods are at least the equivalent of that prescribed with respect to strength and safety.

- C. Hinges for out-swinging doors shall be equipped with mechanical interlock to preclude the removal of the door from the exterior.

**430.4.2 Locks.** Swinging doors shall be provided with a single-cylinder deadbolt locking device (keyed on exterior only) with a minimum projection of one inch (1"). The deadbolt shall penetrate at least three-fourths inch (3/4") into the strike receiving the projected bolt. The cylinder shall have a twist-resistant, tapered hardened steel cylinder guard. The cylinder shall have a minimum of five (5) pin tumblers, shall be connected to the inner portion of the lock by solid metal connecting screws at least one-fourth inch (1/4") in diameter and two and one-fourth inches (2-1/4") in length. The bolt assembly (bolt housing) unit shall be of single piece construction. All deadbolts shall meet ANSI grade 2 specifications.

**Exception:** Doors with integral multi-point locking devices.

**430.4.3 Strike plates.** The deadbolt strike plate shall be a minimum of 18 gauge metal with four offset screw holes. The strike plate shall be attached to the door jamb with four screws not less than three inches (3") in length, and penetrating at least one inch (1") into the nearest stud.

**Exception:** Installations provided with alternative reinforcing methods as approved by the building official where it is determined that such alternative methods are at least the equivalent of that prescribed with respect to strength and safety.

**430.4.4 Door edge protector.** A metal L-shaped or U-shaped door edge protector shall be installed around the bolt projection of the deadbolt to protect the door's edge.

**430.4.5 Double doors.** The inactive leaf of a double swinging door shall be provided with flush bolts having an engagement of not less than one inch into the head and threshold of the door frame.

**430.4.6 Sliding doors.** All sliding glass doors shall be equipped with a secondary locking device consisting of a metal pin, a surface mounted bolt assembly, or other equivalent device as approved by the building official. Where used, metal pins shall be installed at the intersection of the inner and outer panels of the inside door and shall not penetrate the frame's exterior surface.



**430.5 Entry vision and glazing.** All main or front entry doors to dwelling units shall be arranged so that the occupant has a view of the area immediately outside the door without opening the door. The view may be provided by a door viewer having a field of view not less than 180 degrees or through windows or view ports.

**430.6 Exterior Lighting.** In addition to the lighting outlet requirements of Article IV of this chapter, exterior lighting shall be provided in accordance with this section.

**430.6.1 Front and street side exterior lighting.** All doors shall be protected with a minimum of one lighting outlet providing a minimum of 60 watt lighting (or energy efficient equivalent).

**430.6.2 Lighting protection.** Lighting outlets required by this section shall be located a minimum of eight feet (8') above grade or adjacent walking surface accessible from grade, or shall be of a type manufactured such that the light bulb is not readily accessible.

The following subsection is added to the referenced model code:

**503.1, Exception.** A building addition separated from the existing building by a fire wall complying with Section 706 may be considered to be a different building for additional purposes under this code.

The following subsection is added to the referenced model code:

**503.1.4, Exception 3. Toilet rooms on occupied roofs.** One or a pair of single-user toilet rooms located on an occupied roof shall be permitted without being considered as an additional story, additional building height, or additional floor area, for determination of the required type of construction. The toilet rooms shall comply with all other applicable requirements.

The following subsection is added to the referenced model code:

**903.2.8, Exception.** An automatic sprinkler system is not required in a detached single family dwelling, a detached two-family dwelling (duplex), or in an attached single-family dwelling (townhouse), where under the scope of this Article.

A builder of a detached one- or two-family dwelling or townhouse shall offer to any purchaser on or before the time of entering into the purchase contract the option, at the purchaser's cost, to install or equip fire sprinklers in the dwelling or townhouse. The purchaser shall have the right to choose or decline to install a fire sprinkler system. This notification requirement is provided in accordance with, and shall expire in conjunction with, Missouri Statute (RSMO 67.281).

The following subsection found in the referenced model code is amended as follows:

**903.3.1.1.1, Exempt Locations, Item 2.** Any room or space where sprinklers are considered undesirable because of the nature of the contents, when approved by the fire code official and the building code official.

The following subsection found in the referenced model code is amended as follows:

**1004.9 Posting of occupant load.** Every room or space that is an assembly occupancy shall have the occupant load of the room or space posted in a conspicuous place, near the main exit or exit-access doorway from the room or space, for the intended configurations. Posted signs shall



be of an approved legible permanent design and shall bear the following: the signature of the building official, the number of occupants permitted for each room use, the occupancy group of the space, and the year of the code in effect at time of approval. Posted signs shall be maintained by the owner or authorized agent.

**Exception:** The approved occupant load sign may be located behind a decorative openable panel in the room or space or may be located in the building manager's office whenever access to the approved sign is readily available 24 hours per day and the occupant load is otherwise posted in the room as required in this section, along with directions for locating the approved sign.

**1106 Parking and Passenger Loading Facilities** is deleted. See Code of Ordinances Chapter 88 for accessible parking requirements.

The following subsection is added to the referenced model code:

**1109.2.1.8 Universal Changing Station.** Family or assisted-use toilet and bathing rooms shall include a universal changing station for the assistance of persons with disabilities. The changing station area must be equipped with a height-adjustable changing table suitable for use for an adult or a child. The table shall be:

- a) of minimum dimension 24 inches in width by 70 inches in length;
- b) adjustable to allow lowering to a height no greater than 8 inches, and raising to a height no less than 34", above finished floor elevation; and,
- c) capable of supporting a minimum of 350 pounds.

**Exception:** Where a building is provided with more than one family or assisted-use toilet and bathing room, only one such room shall require a Universal Changing Station. Where this exception is utilized, signage shall be provided at all such rooms indicating the location of the Universal Changing Station.

[The following subsection is added to the referenced model code:](#)

**1110.4.13.1 Existing Play Areas at Schools.** A school obtaining a building permit to upgrade an existing play area or parking area adjacent to an existing play area shall upgrade such existing play area to conform with the requirements of ICC ANSI A117.1-2009 section 1108 for play area accessibility.

**1111.1 Signage, Item 1, 2 and 3** is deleted. See Code of Ordinances Chapter 88 for accessible parking signage requirements.

The following section found in the referenced model code is amended as follows:

## **SECTION 1612 FLOOD LOADS**

See Code of Ordinances, **Chapter 28 – Floodplain Management**.



The following subsection is added to the referenced model code:

**1809.5.1 Frost Line.** The design frost line shall be 36 inches (915mm).

The following table found in the referenced model code is amended as follows:

**Table 2902.1 Minimum Number of Required Plumbing Fixtures** – Add footnote g to column “DRINKING FOUNTAINS” as follows:

g. Where restaurants or other businesses serving take-out food or drinks provide drinking water in a container free of charge, drinking fountains shall not be required in those restaurants or those other businesses serving take-out food or drinks. In other occupancies where drinking fountains are required, water coolers or bottled water dispensers shall be permitted to be substituted for not more than 50 percent of the required number of drinking fountains.

The following subsection found in the referenced model code is amended as follows:

**3001.3 Referenced standards.** Except as otherwise provided for in this code, the design, construction, installation, alteration, repair and maintenance of elevators and conveying systems and their components shall conform to Article IX of this code.

The following exception is added to the referenced model code:

**3005.2 Exception:** For machinery located inside the hoistway, an engineering assessment shall be allowed to prove that the main building ventilation systems will provide adequate hoistway temperature and humidity control while the building is in use. If the elevator is required to be on standby power, the ventilation system shall also be on standby power in accordance with Section 3003.1.4.

**3109 Swimming Pools, Spas and Hot Tubs** is deleted. See Code of Ordinances Chapter 34.

The following subsection is added to the referenced model code:

**3201.1.1 Encroachment.** No part of any structure or any appendage thereto shall project beyond the property line of a building site and encroach below, on or above public property, except where authorized by an encroachment permit, or specifically allowed without a permit, in accordance with Article I, Section 18-25.

The following subsection is added to the referenced model code:

**3201.1.2 Existing encroachments.** Parts of existing buildings and structures which already lawfully project beyond the street lot line or building line may be maintained as constructed until their removal is directed by the building official.

The following section found in the referenced model code is amended as follows:

### **SECTION 3303 DEMOLITION.**

**3303.1 General.** The work of demolition or moving of any building shall not commence until the structures required for protection of persons and property are in place. Such structures shall conform to the requirements as set forth in chapter 33 of this article.



The building official may require the permittee to submit plans and a complete schedule for demolition or moving work.

**3303.2 Scope.** In addition to the other requirements of this article and the general ordinances, this section shall govern the demolition and moving of buildings and structures. Any device or equipment such as scaffolds, ladders, derricks, hoists or similar items used in connection with demolition shall be constructed, installed and maintained and operated in accordance with the regulations governing the construction, installation, maintenance and operation of such device or equipment as specified in other portions of this article.

**3303.3 Loads.** Structures or parts of structures, or any floor or temporary support, scaffold, sidewalk barricade, bridge, device or equipment, shall not be loaded in excess of the safe carrying capacity.

**3303.4 Warning signs.** When required, demolition jobs shall be provided with danger signs, which shall be conspicuously posted around the property.

**3303.5 Lights.** Between sunset and sunrise, adequate lights shall be provided to properly protect persons and property from hazards of pits, excavations, fences, barriers, equipment, building materials or rubbish in, upon or near a sidewalk or street. All walkways shall be provided with lights as follows:

**3303.5.1** Amber lights, with capacity of at least 100 watts, on the street side of the walkway at both ends and near the corner.

**3303.5.2** Other lighting consisting of 60-watt lights spaced every ten feet along the walkway.

**3303.6 Dust.** All material to be removed shall be wet sufficiently to lay the dust incidental to its removal.

**3303.7 Rubbish and waste.** All adjacent streets, alleys and other public ways and places shall be kept free and clear of all rubbish, refuse and loose material resulting from the moving, demolition or demolition operations.

**3303.8 Fences.** The building official may require that a fence be constructed on or around any demolition site, when deemed necessary to protect the public.

**3303.9 Methods of demolition.**

**3303.9.1 General.** Except for the cutting of holes in floors for chutes and holes through which to drop materials, preparation of storage space and other necessary preparatory work, demolition of exterior walls and floor construction shall begin at the top of the structure and proceed downward, and each story or exterior wall and floor construction shall be removed and dropped into the storage space before commencing the removal of walls and floors in the story next below. This requirement shall not prohibit the



demolition of a structure in sections if positive means are taken to prevent injury to person or damage to property. The use of other methods may be permitted when approved in advance by the building official.

**3303.9.2 Protection of openings.** All floor openings and shafts not used for material chutes shall be floored over or enclosed with guardrails and toe boards.

**3303.9.3 Stairs and ladders.** All stairs and ladders shall be maintained in a safe condition, and at least one stairway shall be accessible as each floor is demolished.

### **3303.10 Removal of materials.**

**3303.10.1 Through chutes.** Materials shall not be dropped by gravity to any point lying outside the exterior walls of the building except through enclosed wood or metal chutes.

**Exception:** Where the distance from the property line or sidewalk is equal to or greater than the height of the demolition work, materials may be dropped to the ground, provided dust control is maintained in accordance with the provisions of other portions of this chapter.

**3303.10.2 Through floor openings.** If debris is dropped through holes in the floor without the use of chutes, the total area of the hole cut in any intermediate floor (one which lies between the floor that is being demolished and the storage floor) shall not exceed 25 percent of such floor area.

**3303.11 Condition of site.** Upon completion of the removal of the building, structure or utility, all fencing, pedestrian protection and demolition debris and refuse of any kind shall be removed from the site. Excavations, basements or cellars shall be filled with inorganic material; provided, however, the top one foot of fill shall be clean earth. The filling of such excavation may not be required when a building permit has been issued for a new building on a site and the construction thereof is to start within 60 days after the completion of demolition or moving operations. The holder of the building permit shall provide such excavation with a temporary barricade protecting the excavation on all sides as specified for safety by the director of city planning and development. Temporary barricades may remain in position for a time not exceeding five days, after which a solid barricade shall be provided or the excavation filled.

The following subsection is added to the referenced model code:

**3307.2 Temporary Erosion and Sediment Control.** Erosion and sediment control measures shall be provided for disturbed areas (clearing, grading, excavating, filling, storing, or disposing of soil and earth materials) greater than 300 square feet, where an application has been submitted or an application is required to be submitted to the building official for a building permit or grading permit. Erosion and sediment control measures shall comply with the adopted standards by the director of public works. Measures that fail to provide erosion and sediment control to the adopted standards by the director of public works shall be considered not in compliance with this manual. All control measures shall remain in place and maintained until the site has been stabilized and the measures are no longer necessary.



**Chapter 35 Referenced Standards.** The following standards are amended as noted. (All other referenced standards remain unamended.)

ASME A17.1 See Article IX of this chapter.

ASME A18.1 See Article IX of this chapter.

**Appendices:** The following appendix chapters are hereby adopted:

**Appendix C - Group U - Agricultural Buildings.**

**Appendix H – Signs,** as amended by Article X of this chapter.

**Appendix J – Grading.**

**J103, Permits Required** is deleted. See Article I of this chapter.

**J105, Inspections** is deleted. See Article I of this chapter.

(Code of Gen. Ords. 1967, § 9.2.1; Ord. No. 51979, 9-25-80; Ord. No. 54403, 10-21-82; Ord. No. 61386, 8-10-89; Ord. No. 911125, 4-23-92; Ord. No. 931300, 5-19-94; Ord. No. 960296, § 1, 4-4-96; Ord. No. 981135, § C, 2-22-99; Ord. No. 010783, 8-23-01; Ord. No. 020982, 8-29-02; Ord. No. 030308, 3-20-03; Ord. No. 040477, § 1, 8-12-04; Ord. No. 070860, § 1, 9-13-07; Ord. No. 071193, § 1, 1-3-08; Ord. No. 090063, § 1, 2-12-09; Ord. No. 100905, § 1, 11-18-10; Ord. No. 110526, 7/21/2011; Ord. No. 120375, § 1, 5-24-12; Ord. No. 121016, § 1, 2-7-13; Ord. No. 170772, § 1, 4-12-2018)

**Secs. 18-41--18-56. Reserved.**