COMPARED VERSION
NEW ORDINANCE TO CODE BOOKS

ORDINANCE NO. 220364

Amending Chapter 18, Code of Ordinances, by repealing Article III, Section 18-57 entitled "Adoption of International Residential Code (2018); amendments" and Article XIV, Section 18-367 entitled "Adoption of International Energy Conservation Code (2012); amendments" and enacting, in lieu thereof, new sections of like number and subject matter that update the City's Energy Conservation Code.

WHEREAS, the City Council adopted an update to the Kansas City Building and Rehabilitation Code, Chapter 18 of the Code of Ordinances (the "Building Code") with Committee Substitute for Ordinance No. 120375, on May 24, 2012; and

WHEREAS, Ordinance No. 200418 was passed on June 18, 2020, to update the Building Code by adopting the latest editions of the currently adopted, nationally recognized model codes for use in building construction; and

WHEREAS, the KCMO 2008 Climate Protection Plan recognizes the large role of buildings and structures in the City as consumers of energy and the concomitant result in significant greenhouse gas emissions; and

WHEREAS, Kansas City is a signatory to the "We Are Still In" commitment supporting climate action to meet the goals of the Paris Climate Accord; and

WHEREAS, Kansas City passed Resolution No. 200005 updating its Climate Protection and Resiliency Plan with goals to reduce greenhouse gas emissions citywide 100% from the electricity sector by 2030, 100% greenhouse gas reduction from municipal operations by 2022, and to become climate neutral by 2040 in order to protect the health and welfare of all our residents, and adopting modern building codes is instrumental in meeting this goal; and

WHEREAS, energy codes play a key role in meeting carbon reductions because buildings account for nearly 45% of carbon emissions in the U.S.; and

WHEREAS, the 2021 International Energy Conservation Code ("IECC") with a Zero-Code Appendix was scheduled to be available by the International Code Council in the fall of 2020 to replace the 2018 IECC as the most up to date version of America's model energy code; and

WHEREAS, because implementing new code regulations results in costs for training and communication, the City would save money by moving directly to the 2021 IECC instead of first adopting the 2018 IECC and then later adopting the 2021 IECC; and

WHEREAS, the Council passed Resolution No. 200449 that expressed the Council's continued commitment to climate action and its desire to delay consideration of an update to the

City's energy efficiency code until the 2021 version of the IECC with a Zero-Code Appendix was released in the fall of 2020; and

WHEREAS, the adoption of Resolution No. 200449 allowed for further engagement of residents, stakeholders and City staff in the process of developing language associated with updating the City's energy efficiency code; NOW, THEREFORE,

BE IT ORDAINED BY THE COUNCIL OF KANSAS CITY:

Section 1. That Chapter 18, Article III, Code of Ordinances of the City of Kansas City, Missouri, is hereby amended by repealing Section 18-57 and enacting, in lieu thereof, a new section of like number and subject matter to read as follows:

Article III. RESIDENTIAL CODE FOR ONE- AND TWO FAMILY DWELLINGS

Sec. 18-57. Adoption of the International Residential Code (2018); amendments.

The International Residential 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 Residential Code. The following provisions coinciding with provisions of the International Residential Code supersede, delete or add text where indicated, to the corresponding provisions of the International Residential 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.

For temporary erosion and sediment control requirements see section 3307.2 of article II of this chapter.

R202 DEFINITIONS — The following definitions have been revised or added (remainder of section R202 unamended):

TOWNHOUSE. A single-family dwelling unit, in which each unit extends from foundation to roof and with a yard or public way on at least two sides, constructed:

In a group of three or more attached units; or,

In a group of two attached units where a property line exists between the units on the underlying parcels.

WATER SERVICE PIPE. The pipe from the water main or other source of potable water supply to the first shut-off valve downstream of all of the following (as applicable): 1. the point of entrance into the building; 2. the water meter; or 3. the service backflow prevention device.

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

Table R301.2 (1)

CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

GROUND SNOW LOAD [o]	WIND DESIGN				SEISMIC DESIGN CATE-GORY [f]	SUBJECT TO DAMAGE FROM
	Speed [d] (MPH)	Topographic Effects [k]	Special wind Region [l]	Windborne Debris zone [m]		Weathering [a]
20 psf	115	No	No	No	A	Severe

WINTER DESIGN TEMP [e]	ICE BARRIER UNDERLAYMENT REQUIRED [h]	FLOOD HAZARDS [g]	AIR FREEZING INDEX [i]	MEAN ANNUAL TEMP [j]
6°F	Yes	See Ordinance Chapter 28	1000 F-days	54.2 F

MANUAL J DESIGN CRITERIA [n]

Elevation	Latitude	Winter heating	Summer cooling	Altitude correction factor
909	39° N	4° F	96° F	—

Indoor design temperature	Design temperature cooling	Heating temperature difference
72° F	75°	68° F

Cooling temperature difference	Wind velocity heating	Wind velocity cooling	Coincident web bulb
21° F	15	7.5	75° F

Daily range	Winter humidity	Summer Humidity
High	50%	30%

(See 2018 International Residential Code for footnotes.)

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

R302.2.2 (Common Walls, Townhouses). Amend "Item 1" of this section as follows (remainder of this section is unchanged). [This amendment made pursuant to Missouri Statute RSMO 67.281.]

1. Where a fire sprinkler system in accordance with P2904 is provided, the common wall shall be not less than a 2-hour fire-resistance-rated wall assembly tested in accordance with ASTM E119, UL 263 or Section 703.3 of the International Building Code.

R302.13 Fire protection of floors is deleted.

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

R303.4 Mechanical ventilation. Where the air infiltration rate of a dwelling unit is 3 air changes per hour or less where tested with a blower door at a pressure of 0.2 inch w.c. (50 Pa) in accordance with Section N1102.4.1.2, the dwelling unit shall be provided with whole-house ventilation in accordance with Section M1505.4.

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

R313 AUTOMATIC FIRE SPRINKLER SYSTEMS. A builder of a 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 section found in the referenced model code is amended as follows:

R322 Flood-Resistant Construction**.** See Code of Ordinances, Chapter 28 - Floodplain Management.

The following section is added to the referenced model code:

R328 Moved Structures. See Article XIII of this Chapter.

The following section is added to the referenced model code:

R329 Physical Security

R329.1 Purpose. The purpose of this Section is to establish minimum standards that incorporate physical security to make dwelling units resistant to unlawful entry.

R329.1.1 Scope. This section shall apply to all dwelling unit exterior doors.

Exceptions:

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

R329.2 Doors. Doors shall comply with Sections R329.2.1 through R329.2.3.

R329.2.1 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 (¼") thick. The groove shall be a dado groove or applied molding construction. The groove shall be a minimum of one-half inch (½") in depth.

R329.2.2 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.

R329.2.3 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").

R329.3 Door frames. Door frames shall comply with Sections R326.3.1 through R326.3.4 and shall be installed in accordance with the manufacturer's installation instructions. Door frames shall be installed prior to rough-in inspection.

R329.3.1 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.

R329.3.2 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.
R329.3.3 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.
R329.3.4 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.
R329.4 Door hardware. Door hardware shall comply with Sections R326.4.1 through R326.4.7.
R329.4.1 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.

R329.4.2 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.
R329.4.3 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.

R329.4.4 Door edge protector. A metal L-shaped or U-shaped door edge protector, or escutcheon plate, shall be installed around the bolt projection of the deadbolt to protect the door's edge.

R329.4.5 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.

R329.4.6 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.

R329.5 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.

R329.6 Exterior Lighting. In addition to the lighting outlet requirements of Section E3903, exterior lighting shall be provided in accordance with this section.

R329.6.1 Front and street side exterior lighting. All front and streetside door entrances shall be protected with a minimum of one lighting outlet providing a minimum of 60 watt lighting (or energy efficient equivalent).

R329.6.2 Rear exterior lighting. Dwelling units with windows or doors on the rear of the structure within eight feet (8') of grade or adjacent walking surface accessible from grade shall be equipped at the rear with a minimum of one lighting outlet of the flood light type providing a minimum of 65 watt lighting (or energy efficient equivalent) .

R329.6.3 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 found in the referenced model code is amended as follows:

R404.4 Retaining Walls. Retaining walls that are not laterally supported at the top and that retain in excess of 48 inches (610 mm) of unbalanced fill, that support a surcharge, or are adjacent to a public right-of-way shall be designed to ensure stability against overturning, sliding, excessive foundation pressure and water uplift. Retaining walls shall be designed for a safety factor of 1.5 against lateral sliding and overturning. This section shall not apply to foundation walls supporting buildings.

The following exception is added to the referenced model code:

R405.1, Exception 2. A filter membrane is not required where the gravel or crushed stone drain extends at least eighteen inches (18") above the top of the footing, or where the perforated pipe is covered with at least eighteen inches (18") of washed gravel or crushed stone.

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

R602.6.1, Figure R602.6.1 Drilling and notching of top plate. Where piping or ductwork is placed in or partly in an exterior wall or interior load-bearing wall, necessitating cutting, drilling or notching of the top plate by more than 50 percent of its width, a galvanized metal tie of not less than 0.054 inch thick (1.37 mm) (16 ga) and 1 1/2 inches (38 mm) wide shall be fastened across and to the plate at each side of the opening with not less than four 10d (0.148 inch diameter) nails having a minimum length of 1-1/2

inches (38 mm) at each side, or equivalent (or as required by the product listing, evaluation report, or manufacturer's instructions, where applicable). The metal tie must extend a minimum of 6 inches past the opening. See Figure R602.6.1.

Exception: When the entire side of the wall with the notch or cut is covered by wood structural panel sheathing.

The following exception is added to the referenced model code:

R703.7.2 Plaster, Exception. Plaster installed per an approved listing or evaluation report.

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

R801.3 Roof drainage. All dwellings shall have a controlled method of water disposal from roofs that will collect and discharge all roof drainage to the ground surface not less than 3 feet (1524 mm) from foundation walls or to an approved drainage system.

The following subsection is added to the referenced model code:

R901.2 Restrictive covenants. It shall be unlawful for any individual or organization to establish or enforce restrictive covenants which prohibit or effectively prevent the owner of a one- or two-family dwelling or townhouse from using any types of shingles for roof covering materials allowed by this code, including wood shingle, wood shake shingle, composition, slate, tile, clay, or concrete. Nothing in this ordinance shall prohibit a homes association, if it determines to do so, from adopting restrictive covenants or otherwise governing the use of such roofing materials only to the extent of regulating the colors, styles, or dimensions of roofing materials, or other aesthetic factors. Notwithstanding any existing procedural provisions governing the time period for consideration of amendments of restrictive covenants by home associations to the contrary, a home association, if it determines to do so, may amend their restrictive covenants to provide for such aesthetic regulations for a period of 180 days from the effective date of this ordinance. Any such amendments after that 180 day period of time shall be subject to any procedural requirements set forth in such covenants.

Chapter 11 is deleted. See Article XIV of this chapter for adoption of IECC 2021.

Part V, Chapter 12, Mechanical Administration, is deleted.

The following exception is added to the referenced model code:

M1602.2, Prohibited Sources (Return Air), Item #4, Exception #3. Closets with a minimum floor area of 24 square feet and minimum interior dimension 4 feet, and that are conditioned by a source of supply air.

Sections M2001, M2002, M2003, and G2452 (Boilers) are deleted.

Part VII, Chapter 25, Plumbing Administration, is deleted.

The following subsection is added to the referenced model code:

P2602.1.1. For the purpose of this section, available means located in a public way or easement abutting the subject property and within 200 feet of the proposed building.

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

P2706.1.2 Standpipes. Standpipes for automatic clothes washers shall extend a minimum of 30 inches (762 mm) and a maximum of 48 inches (1219 mm) above the finished floor. The trap for a clothes washer standpipe shall be installed at a maximum of 12 inches (305 mm) above the finished floor. Access shall be provided to all standpipe traps and drains for rodding.

P2706.1.2.1 Laundry tray connection. A laundry tray waste line is permitted to connect into a standpipe for the automatic clothes washer drain. The standpipes shall not be less than 30 inches (762 mm) as measured from the crown weir. The outlet of the laundry tray shall be a maximum horizontal distance of 30 inches (762 mm) from the standpipe trap.

The following subsection is added to the referenced model code:

P2901.3. References in this code to water service piping shall apply only to water service piping connected to a private source of water supply. All water service piping connected to the public water supply is under the jurisdiction of the Department of Water Services.

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

P2902.5.3 Lawn irrigation systems. The potable water supply to lawn irrigation systems shall be protected against backflow by a double check valve assembly or a reduced pressure principle backflow preventer. Where chemicals are introduced into the system, the potable water supply shall be protected against backflow by a reduced pressure principle backflow preventer.

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

P2903.8.2 Minimum size. The minimum size of individual distribution lines shall be ½" (12.7 mm). Certain fixtures such as one-piece water closets and whirlpool bathtubs shall require a larger size where specified by the manufacturer. If a water heater is fed from one end of a cold water manifold, the manifold shall be one size larger than the water heater feed.

Table P3002.2 Building Sewer Pipe. Delete "PS 25, SDR 41 (PS 28), PS 35, SDR 35 (PS 46), PS 50, PS 100" from "Polyvinyl chloride (PVC) plastic pipe in sewer and drain diameters". (Remainder of Table unamended.)

The following exception is added to the referenced model code:

P3008.1 Sewage backflow, Exception. The backwater valve is not required unless the structure is connected to a combination storm/sanitary sewer, or the structure or the next downstream sewer manhole is located in the regulatory floodplain.

The following subsection is added to the referenced model code:

P3105.4 Floor drain. A floor drain (where used as such) need not be vented, provided it is within 25 feet of a three-inch stack or horizontal drain which has at least a three-inch-diameter vent extension through the roof.

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

P3114.3 Where permitted. Vents may terminate to an air admittance valve under the following conditions:

(1) For sinks located where there is no wall accessible from the sink location (e.g. island sinks); or where access to the vent system would require notching or boring of studs in excess of the limitations of section R602.6.

(2) In existing construction, where the existing vent system is not accessible to the fixture location without the removal of finish materials or other existing construction.

E3901.12 HVAC outlet is deleted.

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

E3902.2 (Garage and accessory building receptacles), Exception. Receptacles utilizing the provisions of this exception shall be permanently marked to indicate "[Type of equipment] Only - No GFCI Protection".

1. A dedicated receptacle supplying only a permanently installed fire alarm or burglar alarm system.

2. A dedicated receptacle supplying only a garage door opener.

3. A dedicated receptacle supplying only a refrigerator and/or freezer.

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

E3902.5 (Unfinished basement receptacles), Exception. Receptacles utilizing the provisions of this exception shall be permanently marked to indicate "[Type of equipment] Only - No GFCI Protection".

1. A dedicated receptacle supplying only a permanently installed fire alarm or burglar alarm system.

2. A dedicated receptacle supplying only a sump pump.

3. A dedicated receptacle supplying a refrigerator and/or freezer.

The following subsection found in the referenced model code is amended as follows: **E3902.16 Arc-fault circuit-interrupter protection**. Branch circuits that supply 120-volt, single-phase, 15- and 20-ampere outlets installed in bedrooms shall be protected by any of the following: [The reminder of the section remains unamended.]

Part X, Appendices: The following appendix chapters are hereby adopted:

Appendix I, Private Sewage Disposal. See Article VIII of this chapter.

Appendix Q, Tiny Houses

Section 2. That Chapter 18, Article XIV, Code of Ordinances of the City of Kansas City, Missouri, is hereby amended by repealing Section 18-367 and enacting, in lieu thereof, a new section of like number and subject matter to read as follows:

ARTICLE XIV. ENERGY CONSERVATION CODE

Sec. 18-367. Adoption of International Energy Conservation Code (2021); amendments.

The International Energy Conservation Code (2021), 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 Energy Conservation Code. The following provisions coinciding with provisions of the International Energy Conservation Code supersede, or delete, when indicated, the corresponding provisions of the International Energy Conservation Code.

In addition, the IECC Appendix CC: Zero Energy Commercial Building Provisions is an option for builders to voluntarily implement.

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 [CE], SCOPE AND ADMINISTRATION is deleted. See Article I of this chapter.

C405.12 Electrical for future use on new buildings with electrical services

1. Provide 2-inch conduit run up to attic for future photovoltaic systems.
2. Provide 2-inch conduit run into parking areas for future electric vehicle charging stations.

Chapter 1 [RE], SCOPE AND ADMINISTRATION is deleted. See Article I of this chapter.

Table R402.4.1.1. Under 'Walls'. Amend first sentence to read: "Corners and headers shall be sealed and the junction of the foundation and sill plate shall be sealed."

R403.3.7, Exception. In IRC projects building framing cavities may be used as ducts or plenums where sealed to prevent leakage through the thermal envelope.

R404.4 Electrical for future use on new buildings with electrical services

1. Provide 2-inch conduit run up to attic for future photovoltaic systems.
2. Provide 2-inch conduit run into garage areas for future electric vehicle charging stations.

Section 3. Pursuant to Section 67.280, Revised Statutes of Missouri, the Council finds that a copy of the model code proposed for adoption was filed with the City Clerk and made available for public use, inspection, and examination at least 90 days prior to the adoption of this ordinance.

Section 4. Compliance with the changes made to Chapter 18 with this ordinance is mandatory for applications made on or after 90 days after the effective date of this ordinance (such date, the “Grace Period End Date”). Until the Grace Period End Date, applicants may choose to

have applications reviewed under this ordinance provided that if an applicant so chooses, the application must comply with this ordinance in its entirety.

Approved as to form and legality:

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Eluard Alegre
Associate City Attorney