

ATTACHMENT "A"

TITLE V. BUILDING CODE

CHAPTER 500: BUILDINGS AND BUILDING REGULATIONS

Cross References—Fire prevention and protection, ch. 205; flood damage prevention and control, ch. 415; solid waste, ch. 235; health and sanitation, ch.245; mobile homes and trailers, ch.410; parks and recreation, ch. 240; sewers and sewage disposal, 705.010 et seq; streets, sidewalks and public places, ch.505; utilities, ch.700; Ord. No. 923 adopted the standards specifications and design criteria of the Kansas City chapter A.P.W.A. as the standards for construction of public utilities and infrastructures within the city, these specifications are on file in the city office.

**Article I
In General**

Section 500.010 Reference Copies.

[Code 1985, §47.130; CC 1990 §5-1; Ord. No. 2271 §1, 12-3-2012]

The City Clerk is hereby authorized and instructed to obtain one (1) copy of each code mentioned in this Chapter.

Section 500.020 Violations — Penalty.

[Code 1985, §47.140; CC 1990 §5-2; Ord. No. 2271 §1, 12-3-2012]

- A. Any person who shall violate any provision of this Chapter or any of the codes adopted in this Chapter shall be deemed guilty of a misdemeanor.
- B. Upon conviction, a person found violating any provisions of this Chapter shall be subject to punishment as provided in Section **100.110** of this Code.

Section 500.030 Powers and Duties of the Building Inspector.

[Code 1985, §46.140; CC 1990 §5-82; Ord. No. 2271 §1, 12-3-2012]

- A. The person designated as Building Inspector by the City shall enforce the provisions of this Chapter and is hereby authorized to make inspections or respond to a complaint that an alleged violation of the provisions of this Chapter or of applicable rules or regulations pursuant thereto may exist; or when the person designated as Building Inspector by the City has valid reason to believe that a violation of this Chapter or any rules and regulations pursuant thereto has been or is being committed.
- B. The person designated as Building Inspector by the City or his/her authorized agent is hereby authorized to enter and inspect between the hours of 8:00 A.M. and 5:00 P.M. all dwellings, dwelling units, and rooming houses, rooming units, dormitories and dormitory rooms subject to the provisions of this Chapter for the purpose of determining whether there is compliance with its provisions.
- C. The person designated as Building Inspector by the City or his/her authorized agent is hereby authorized to inspect the premises surrounding dwellings, dwelling units, rooming houses, rooming units, dormitories and dormitory rooms subject to this Chapter for the purpose of determining whether there is compliance with its provisions.

- D. The person designated as Building Code Inspector by the City or his/her authorized agent and the owner, occupant or other person in charge of a dwelling, dwelling unit, rooming unit, rooming house or dormitory room subject to this Chapter may agree to an inspection by appointment at a time other than the hours provided by Subsection **(B)** of this Section.
- E. The owner, occupant or other person in charge of a dwelling, dwelling unit, rooming unit, rooming house or dormitory room upon presentation of proper identification by the person designated as Building Code Inspector by the City or his/her authorized agent shall give the person designated as Building Code Inspector by the City or his/her authorized agent entry and free access to every part of the dwelling, dwelling unit, rooming unit or dormitory room or to the premises surrounding any of these.
- F. The person designated as Building Inspector by the City or his/her authorized agent shall keep confidential all evidence, exclusive of the inspection record, which it may discover or obtain in the course of an inspection made pursuant to this Section and such evidence shall be considered privileged.
- G. If any owner, occupant, or other person in charge of a dwelling, dwelling unit or rooming unit, or of a multiple dwelling or a rooming house fails or refuses to permit free access and entry to the structure or premises under his/her control, or any part thereof, with respect to which an inspection authorized by this Chapter is sought to be made, the person designated as Building Inspector by the City or his/her authorized agent may, upon a showing that probable cause exists for the inspection and for the issuance of an order directing compliance with the inspection requirements of this Section with respect to such dwelling, dwelling unit, rooming unit, multiple dwelling, or rooming house, petition and obtain such order from a court of competent jurisdiction. When required, the person designated as Building Inspector by the City or his/her authorized agent shall obtain the necessary order from the court to conduct the inspection.

Section 500.040 Rules and Regulations.

[Code 1985, §46.160; CC 1990 §5-83; Ord. No. 2271 §1, 12-3-2012]

The person designated as Building Inspector by the City or his/her authorized agent is hereby authorized to make, adopt, revise and amend procedural rules and regulations as it deems necessary to administer the purposes of this Chapter.

Section 500.050 Notice of Violation.

[Code 1985, §46.170; CC 1990 §5-84; Ord. No. 2271 §1, 12-3-2012]

- A. Whenever the person designated as Building Inspector by the City or his/her authorized agent determines that any dwelling, dwelling unit, or rooming unit, or the premises surrounding any of these, fails to meet the requirements set forth in this Chapter or in applicable rules and regulations issued pursuant thereto, the person designated as Building Inspector by the City or his/her authorized agent in accordance with existing legislation shall issue a notice setting forth the alleged failures, and advising the owner, occupant, operator, or agent that such failures must be corrected. This notice shall:
 - 1. Be in writing.
 - 2. Set forth the alleged violations of this Chapter or of applicable rules and regulations issued pursuant thereto.

3. Describe the dwelling, dwelling unit or rooming unit where the violations are alleged to exist or to have been committed. Such written notice shall specify an appropriate or acceptable method of correction.
 4. Specify a specific date for the correction of any violation alleged.
 5. Be served upon the owner, occupant, operator, or agent of the dwelling, dwelling unit, or rooming unit personally, or by registered mail, return receipt requested, addressed to the owner, occupant, operator or agent. If one (1) or more persons to whom such notice is addressed cannot be found after diligent effort to do so, service may be made upon such persons by posting the notice in or about the dwelling, dwelling unit or rooming unit described in the notice, or by causing such notice to be published in a newspaper of general circulation for a period of seven (7) consecutive days.
- B. At the end of the period of time allowed for the correction of any violation alleged, the person designated as Building Inspector by the City or his/her authorized agent shall re-inspect the dwelling, dwelling unit or rooming unit described in the notice.
 - C. If upon re-inspection the violations are determined by the person designated as Building Inspector by the City or his/her authorized agent not to have been corrected, the person designated as Building Inspector by the City or his/her authorized agent shall initiate legal proceedings for the immediate correction of the alleged violations or shall order the dwelling, dwelling unit or rooming unit vacated within thirty (30) days, or both.

Section 500.060 Appeals Board — Appeals.

[Code 1985, §46.210; CC 1990 §5-85; Ord. No. 1928, 11-26-2007; Ord. No. 2271 §1, 12-3-2012]

- A. There is hereby created a Construction Code Board of Appeals consisting of five (5) members who shall be appointed by the Mayor with the approval of the Board of Aldermen.
- B. The Construction Code Board of Appeals shall adopt reasonable rules and regulations for the conduct of its meetings and investigations and shall render all decisions and findings in writing to the Mayor of the City and all decisions and findings shall be made part of the public record.
- C. Any person aggrieved by a notice of the person designated as Building Inspector by the City or his/her authorized agent issued in connection with any alleged violation of this Chapter or of any applicable rule or regulation issued pursuant thereto or by any order requiring repair or demolition may apply to the Construction Code Board of Appeals for an administrative conference for reconsideration of such notice or order provided such application is made within twenty-one (21) days after the date the notice or order was issued. If the Construction Code Board of Appeals holds an administrative conference for reconsideration of notice or order, the Construction Code Board of Appeals shall prepare a summary of the conference and shall state the decision reached. Such summary and statement shall become part of the public record. In no case shall the Board provide a general change in the code and in no case shall the Board decide an appeal from an action of the Board of Aldermen.
- D. The Construction Code Board of Appeals upon receipt of an appeal shall set a time and place for the hearing within ten (10) days of the receipt of such application and shall advise the applicant in writing of such time and place at least seven (7) days prior to the date of the hearing.
- E. At such a hearing the applicant shall be given an opportunity to be heard and to show cause why such

notice or order should be modified, extended or withdrawn.

- F. The Construction Code Board of Appeals, by a majority vote, may sustain, modify or withdraw the notice or order. In granting an extension or modification of any notice or order, the Construction Code Board of Appeals shall observe the following conditions:
1. The Construction Code Board of Appeals may grant an extension of time for the compliance of any order or notice for not more than six (6) months subject to appropriate conditions and provided that the Appeals Board makes specific findings of fact based on evidence relating to the following:
 - a. There are practical difficulties or unnecessary hardships in carrying out the strict letter of any notice or order.
 - b. Such an extension is in harmony with the general purpose and intent of this Chapter in securing the public health, safety and general welfare.
 2. The Construction Code Board of Appeals may grant a modification in a specific case and from a specific provision of this Chapter subject to appropriate conditions and provided the Construction Code Board of Appeals makes specific findings of fact based on evidence related to the following:
 - a. There are practical difficulties or unnecessary hardships in carrying out the strict letter of any notice or order.
 - b. The effect of the application of the provisions would be arbitrary in the specific case.
 - c. An modification would not constitute an appropriate remedy for these practical difficulties or unnecessary hardships and this arbitrary effect.
 - d. Such modification is in harmony with the general purpose and intent of this Chapter in securing the public health, safety and general welfare.

Section 500.070 Emergencies.

[Code 1985, §46.220; CC 1990 §5-86; Ord. No. 2271 §1, 12-3-2012]

- A. Whenever, in the judgment of the person designated as Building Inspector by the City or his/her authorized agent, an emergency exists which requires immediate action to protect the public health, safety, or welfare, an order may be issued, without a hearing or appeal, directing the owner, occupant, operator, or agent to take such action as is appropriate to correct or abate the emergency. If circumstances warrant, the person designated as Building Inspector by the City or his/her authorized agent may act to correct or abate the emergency.
- B. The owner, occupant, operator, or agent shall be granted a hearing before the Board of Aldermen on the matter upon his/her request, as soon as practicable, but such appeal shall in no case stay the abatement or correction of such emergency.

Section 500.075 Certain Trades to Have Licenses.

[Ord. No. 2052, 11-10-2009; Ord. No. 2271 §1, 12-3-2012; Ord. No. 2471, 8-12-2019]

- A. The provisions of this Section shall take precedence over any portions of the International Codes as

adopted by the City of Grain Valley.

- B. Definitions. For the purposes of this Section, the following words and phrases shall have the meanings respectively ascribed to them:

ELECTRICAL CONTRACTOR

Any person, business, organization, partnership, corporation or sole proprietorship that engages in the business of contraction for installation, alteration, repair, assembly, maintenance or service of electrical systems within the City of Grain Valley.

MECHANICAL CONTRACTOR

Any person, business, organization, partnership, corporation or sole proprietorship that engages in the business of contraction for installation, alteration, repair, assembly, maintenance or service of heating, ventilating and air-conditioning (HVAC) systems within the City of Grain Valley.

PLUMBING CONTRACTOR

Any person, business, organization, partnership, corporation or sole proprietorship that engages in the business of contraction for installation, alteration, repair, assembly, maintenance or service of plumbing systems and fixtures within the City of Grain Valley.

- C. No electrical, mechanical or plumbing contractor, as defined herein, or other person, business, organization, partnership or corporation shall contract to perform or sublet any work to a person not licensed for such work under the provisions of this Section or perform building, electrical, mechanical or plumbing work, unless at least one (1) person who is licensed as set forth herein is an employee of the business, organization, partnership or corporation to do or doing the building.
- D. To be properly licensed, a person must hold, at the time of contracting and at the time of the performance of the work, a valid Master trade license from the State of Missouri, City of Kansas City, Missouri; the City of Independence, Missouri; Johnson County, Kansas; a Thomson (formerly Block and Associates) test certificate; or ICC Contractor Examination Services test certificate or other nationally recognized equivalent with a minimum score of seventy-five percent (75%).
- E. Licenses Are Not Transferable. The right of a person, business, organization, partnership or corporation to do business as a contractor as defined in Subsection **(B)** depends upon the retention of the person holding the Master certification or test certificate. The Director of Community Development or designee may request documentation to verify the person holding the certification is a current employee, member or officer of the business, organization, partnership or corporation.
- F. No permit shall be issued for the performance of electrical, mechanical or plumbing work as defined in this Section unless said work will be performed in compliance with Subsection **(C)** and a valid license or test certificate as required in Subsection **(D)** is provided for the inspection at the time the permit is applied for or received.
- G. Exceptions. The following persons shall not be required to comply with the above licensing requirements:
1. Craftsmen, employees or agents working for and under the supervision of a contractor licensed under

this Article for any type of construction being undertaken.

2. Manufacturer's representatives working under the direct supervision of a licensed individual and/or sales representative installing low-amperage fixtures that they have sold to the location where it is being installed.
 3. Any person currently occupying and doing work regulated by this Section in an existing single-family dwelling used exclusively for living purposes, including the usual detached accessory building(s), providing such person certifies that he/she is occupying the existing dwelling and is the bona fide owner of such dwelling and accessory building(s) and that said owner shall personally purchase all material and perform all labor in connection therewith, providing that all such work shall be subject to permit, inspection and approval in accordance with the terms of this Article.
- H. As a condition precedent to the issuance of an occupational license involving electrical, mechanical or plumbing work, the applicant shall furnish to the City of Grain Valley a certificate of insurance evidencing that the applicant has in force a policy of general liability insurance, including completed operations coverage during the term of the building permit. Such insurance policy shall be written with an insurance company listed to do business in the State of Missouri. All contractors shall maintain general liability coverage in an amount no less than five hundred thousand dollars (\$500,000.00) per occurrence for personal injuries and property damage. In addition, every such contractor shall procure and maintain workers' compensation insurance as required by law. Proof of insurance shall be provided at the time of licensure and shall have the City of Grain Valley added as a certificate holder to the insurance policy. The insurance policy shall require the insurance company to notify the City of Grain Valley in writing any change or cancellation of such policy at least ten (10) days prior thereto. In addition to the aforementioned insurance requirements, any licensed contractor performing work in the City right-of-way as a condition of a building permit must meet the bonding requirements set forth in Section **505.080**, Bond Prerequisite To Issuance.
1. The Director of Community Development or designee shall have the power to suspend or revoke any license granted under the terms and provisions of this Chapter whenever it shall be shown or whenever they have knowledge that a licensee is conducting said business or manufacturing in violation of any ordinance of the City.
 2. Where action of suspension or revocation is to be taken pursuant to this Chapter, the licensee shall have fifteen (15) days' written notice of the Director of Community Development or designee's intention to suspend or revoke the license prior to such suspension or revocation. Such written notice shall be directed by certified or registered US mail to the business address of the licensee on such licensee's application on file in the office of the City Clerk and shall specify the grounds upon which the license is sought to be suspended or revoked.
 3. The licensee shall have full right to request a hearing and to be represented by counsel at such hearing, to produce witnesses in his/her behalf, and any such hearing, as herein provided, shall be before the Construction Code Board of Appeals.
 4. The Director of Community Development or designee may suspend any said license for a period not to exceed ninety (90) days.

- I. Any person, corporation or partnership violating the requirements of this Section may be punished as set forth in Section **100.110** of this Code.

Article II Building Code

Cross Reference—Fire prevention codes, §205.040 et seq.

Section 500.080 Building Code — Adoption — Amendments.

- A. Adopt the 2018 International Building Code and supplements published by the International Code Council for all construction other than one- and two-family residential for use May 1, 2021.
- B. Appendix Chapters to be adopted: B, C, E, F, G, I, J.
- C. *Amendments.* Sections listed below are to be inserted in place of published Sections.

Section 109.2 Schedule of Fees. Fees for all building, sign, demolition or other permits required within shall be set forth in Section **140.050** of the Grain Valley Municipal Code. A separate plan review fee shall be assessed on all commercial construction as set forth in Section **140.050** of the Code.

Section 109.4 Work Commencing Before Permit Issuance. Any person who commences work on any project that requires a permit before the permit is issued will be assessed a double permit fee.

Section 114.4 Violation Penalties. Any person(s) found in violation of this code shall be guilty of a misdemeanor and subject to punishment in Section **100.110** of the Grain Valley Municipal Code.

Section 423.4 Storm Shelters is hereby amended to add the following language. Exception 4. Group E occupancies that undergo alterations or additions where the cost of compliance with ICC 500 Section 702 is greater than 20% of the total project cost may omit the requirements of ICC 500 Section 702 only.

Section 501.2 Premises identification is hereby amended to add the following language. In multi-tenant commercial buildings where tenants have multiple entrances located on different sides of the building, each door shall be addressed. Address characters shall be capable of being illuminated by an internal or external lighting source.

Section 901.5 Acceptance test is hereby amended to read as follows. Fire detection and alarm systems, fire extinguishing systems, fire hydrant systems, fire standpipe systems, fire pump systems, private fire service main and all other fire protection systems and appurtenances thereto shall be subject to acceptance test(s) as contained in the installation standards and as approved by the Building Official or his/her agent. The Building Department shall be notified twenty-four (24) hours before any required acceptance testing.

Section 903.2.4 Group F is hereby amended to read as follows. 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 12,000 square feet. (1115 m²).
- 2) A Group F-1 fire area is located more than two 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)

- 4) A Group F-1 occupancy used for the manufacture of upholstered furniture or mattresses exceeds 2, 500 square feet (232 m²).

Section 903.2.7 Group M is hereby amended to read as follows. An automatic sprinkler system shall be provided throughout buildings containing a Group M occupancy where one of the following conditions exist.

- 1) A Group M fire area exceeds twelve thousand (12,000) square feet (1,115 m²)
- 2) A Group M fire area is located more than two (2) stories above grade plane.
- 3) The combined area of all Group M fire areas on all floors, including any mezzanines, exceeds twenty-four thousand (24,000) square feet (2,230 m²)
- 4) A Group M occupancy used for display and sale of upholstered furniture or mattresses exceeds fire thousand (5,000) square feet (464 m²)

Section 903.2.9 Group S-1 is hereby amended to read as follows. An automatic sprinkler system shall be provided throughout all buildings containing a Group S-1 occupancy where one of the following conditions exists.

- 1) Where a Group S-1 fire area exceeds twelve thousand (12,000) square feet (1,115 m²)
- 2) A Group S-1 fire area is located more than two (2) stories above grade.
- 3) The combined area of all Group S-1 fire areas on all floors, including any mezzanines, exceeds twenty-four thousand (24,000) square feet (2,230 m²).
- 4) A Group S-1 fire area is used for the storage of commercial trucks or buses where the fire area exceeds five thousand (5,000) square feet 464 m²).
- 5) A Group S-1 fire area used for the storage of upholstered furniture or mattress exceeds two-thousand five hundred (2,500) square feet (232 m²).

Section 903.2.9.1 Repair garages is here by amended to read as follows. An automatic sprinkler system shall be provided throughout all buildings used as repair garages in accordance with Section 406, as shown.

- 1) Building two (2) or more stories in height, including basements, with a fire area containing a repair garage exceeding five thousand (5,000) square feet (464 m²)
- 2) Buildings no more than one story above grade plane with a fire area containing a repair garage exceeding five thousand (5,000) square feet (464 m²)
- 3) Buildings with a repair garages servicing vehicles parked in basements.
- 4) A Group S-1 fire area used for the repair of commercial trucks or buses where the fire area exceeds five thousand (5,000) square feet (464 m²).

Section 903.2.11.3 Buildings 55 feet or more in height is hereby amended to read as follow. Building more than two stories in height. An automatic sprinkler system shall be installed throughout buildings with a floor level more than two stories above the lowest level of fire department vehicle access.

Exceptions.

- 1) Open parking garages

Section 903.3.7 Fire department connection is hereby added to read as follows. The location of Fire Department connections shall be approved by the Fire Code Official. Connections shall be five-inch Storz

type fittings and located within one hundred (100) feet of a fire hydrant, or as approved by the Fire Code Official.

Section 903.4.2 Alarms is hereby amended to read as follows. One all-weather horn/strobe shall be connected to every automatic sprinkler system on the exterior of the building in an approved location. Such sprinkler water-flow alarm devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Where a fire alarm system is installed, actuation of the automatic sprinkler system shall actuate the building fire alarm system. Interior alarm notification appliances shall be installed as required.

Section 905.3 Required installations is hereby amended to read as follows. Standpipe systems shall be provided in new buildings and structures in accordance with Sections 905.2 through 905.11, and as required by the fire code official. In buildings used for high-piled combustible storage, fire protection shall be in accordance with Chapter 32 of the 2018 International Fire Code.

Section 907.2.7.1 Occupant notification is hereby amended to read as follows. During times that the building is occupied, the initiation of a signal from a manual fire alarm box or from a water flow switch shall not be required to activate the alarm notification appliances when an alarm signal is activated at a constantly attended location from which evacuation instructions shall be initiated over an emergency voice/alarm communication system installed in accordance with Section 907.5.2.2 and only when approved by the Fire Code Official.

Section 912.2 Location is hereby amended to read as follows. With respect to hydrants, driveways, buildings and landscaping, fire department connections shall be so located that fire apparatus and hose connected to supply the system will not obstruct access to the buildings for other fire apparatus. The location of fire department connections shall be within 100 feet of an approved fire hydrant or as approved by the fire code official.

Section 1010.1.9 Locks and Latches is hereby amended to read as follows. Egress doors shall be readily openable from the egress side without the use of a key or special knowledge or effort.

Exceptions:

- I. Places of detention or restraint.
- II. Where egress doors are used in pairs, approved automatic flush bolts shall be permitted to be used, provided that the door leaf having the automatic flush bolts has no doorknob or surface-mounted hardware. The unlatching of any leaf shall not require more than one operation.
- III. Doors for individual dwelling units and guestrooms of Group P occupancies having an occupant load of ten (10) or less are permitted to be equipped with a night latch, dead bolt or security chain, provided such devices are openable from the inside without the use of key or tool.

Section 1015.2 Where Required is hereby amended to add the following. Guards are required at retaining walls over 30" above grade when walking surfaces are within 36" of the high side of the retaining wall.

Chapter 13 Energy Efficiency is hereby deleted and replaced with the 2006 International Energy Conservation Code.

Table 1505.1 is hereby amended by deleting footnotes a, b and c.

Section 1505.5 *Non-classified roofing* is hereby deleted.

Section 1511.1 *Reroofing* is amended to add the following. Re-roofing includes any repairs of more than 10% of the total roof covering in any three year period. A repair of 10% or less of the total roof covering in any three year period may utilize approved roofing materials comparable to the existing roofing materials.

Section 1805.4 *Subsoil Drainage System* is amended to add the following. Where foundations retain earth and enclose habitable or usable space located below grade, drains shall be provided below the floor slab. Drainage tiles, perforated pipe or other approved systems or material shall be installed at or below the area(s) to be protected; shall be placed with positive or neutral slope to minimize the accumulation of deposits in the drainage system; and shall discharge by gravity or mechanical means to an approved stormwater drainage system. The under-slab drainage system shall be installed around the inner perimeter of the area(s) to be protected, or, in a manner that will provide adequate drainage for all area(s) to be protected and is approved by the Building Official. Interior under-slab drains installed on uncompacted fill material shall be supported by mechanical means which are adequately tied into the concrete slab to ensure proper drainage throughout the under-slab drain(s).

Section 3109 *Swimming Pools/Spas/Hot Tubs* shall be deleted.

Article III Existing Building Code

Section 500.090 **International Existing Building Code.**



- A. Adopt the 2018 International Existing Building Code and supplements published by the International Code Council for all construction other than one- and two-family residential for use May 1, 2021.
- B. Appendix Chapters to be adopted: A, B, C.
- C. *Amendments.* Sections listed below are to be inserted in place of published Sections.

Section 113.4 Violation Penalties. Any person(s) found in violation of this code shall be guilty of a misdemeanor and subject to punishment in Section **100.110** of the Grain Valley Municipal Code.

Section 108.2 Schedule of Fees. Fees for all building, sign, demolition or other permits required within shall be as set forth in Section **140.050** of the Code. A separate plan review fee shall be assessed on all commercial construction as set forth in Section **140.050** of the Code.

Section 108.4 Work Commencing Before Permit Issuance. Any person who commences work on any project that requires a permit before the permit is issued will be assessed a double permit fee.

Article IV Fire Code

Section 500.095 **International Fire Code — Adoption — Amendments.**

- A. Adopt the 2018 International Fire Code and all supplements published by the International Code

Council for all construction other than one- and two-family residential for use May 1, 2021.

B. Appendix Chapters to be adopted: A, B, C, D, E, F, G, H, I, J.

C. *Amendments.* Sections listed below are to be inserted in place of published Sections.

Section 507.3 Fire Flow is hereby amended to read as follows. Fire-flow requirements for buildings or portions of buildings and facilities shall be determined by using the adopted appendix B of the International Fire Code.

Section 507.5 Fire hydrant systems is hereby amended to read as follows. The minimum number of hydrants shall be determined by using the adopted appendix C of the International Fire Code.

I. The number of hydrants can be reduced by the Code Official if deemed appropriate.

Section 510.1 Emergency responder radio coverage in new buildings is hereby amended to read as follows. Any building meeting the following criteria will produce signal strength test as described in IFC 510.

- I. Any structure with an overall square footage of 12,000 square feet.
 - II. Any structure with a height of 30' or more above grade level.
 - III. Any structure with a level below grade.
 - IV. Any structure determined to be a concern of proper radio communication, CJC/FPD can request a signal strength study to be completed.
- If a signal strength test is required it shall not be performed until all walls, roof, windows with glass, doors, and operational equipment has been completed and in place.
 - A field test shall be performed by CJC personnel at the time of the final inspection utilizing CJC portable two-way communications. The test must pass to receive a Certificate of Occupancy. A temporary Certificate of Occupancy may be issued with an obligation to enhance the emergency radio communications coverage within six months.
 - All other requirements for Emergency Responder Radio Coverage will follow the International Fire Code Section 510, NFPA 1221, and UL 2425.
 - All BDA installations shall conform to the following.
 - Cover 700 and 800 megahertz.
 - Install an annunciator.
 - Install a document box that contains installation plans, and pre- and post-survey test results.

Section 901.6.3.2 Submission of Records is hereby added to read as follows. All records of inspections and maintenance service on fire and life safety systems must be submitted electronically through who Central Jackson County Fire Protection District has contracted to collect and maintain ITM reports and track compliance of the fire code as it pertains to the following.

Section 903.3.8.6 Separate water flow switch/water source. Is hereby added to read as follows. Any building requiring an automatic sprinkler system as required by International Fire Code Section 903 and meets the following criteria must install a separate water flow switch that is addressable through the fire alarm system.

- I. Any building that has an automatic sprinkler system with multiple addresses or suites that is greater than two (2).
- II. Any building requiring an automatic sprinkler system as required by the International Fire Code Section 903 shall have a permanent, maintained water source within 100 feet of the fire department connection.

Section 903.4.2 Alarms is hereby amended to read as follows. An approved audible and visual device, located on the exterior of the building in an approved location, shall be connected to each automatic sprinkler system. Such sprinkler waterflow alarm devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Where a fire alarm system is installed, actuation of the automatic sprinkler system shall actuate the building fire alarm.

Section 903.4.2.1 Notification devices is hereby added and shall read as follows. Where an automatic extinguishing system is installed in a building, audible and visible notification appliances shall be installed throughout the building.

- I. Audible notification appliances shall be installed so as to be audible at 15 dBa above average sound pressure level throughout the building.
- II. Visible notification appliances shall be installed in all public and common use areas, restrooms and corridors in accordance with the spacing requirements of NFPA 72.
- III. Visible notification devices can be eliminated in normally unoccupied portions of buildings were permitted by the code official.
 - Exception: The requirements of this Section do not apply to Group R-3 occupancies.

Section 907.6.6 Monitoring shall be amended as follows. Fire alarm systems required by the International Fire Code or the International Building Code shall be monitored by a listed UL Central Station Monitoring station as defined in NFPA 72. A certificate or placard shall be issued by a recognizing organization that has listed the prime contractor for the newly installed fire alarm system in commercial occupancies in accordance with NFPA 72. This regulation shall apply to all fire alarm systems that are newly installed in commercial occupancies the reside within the city limits of Grain Valley. Any existing fire alarm system in a commercial occupancy wherein the fire alarm control panel and/or alarm system components are to be replaced shall be considered newly installed for the purpose of this section. Also, where there is reasonable cause due to noncompliance or faulty conditions, the fire code official may require an existing fire alarm system meet the same requirements as a newly installed system. Central station service in full compliance with the 2016 Edition of NFPA 72, Chapter 26, shall be maintained at the protected property, so long as the requirement for the fire alarm exist.

Article V Residential Code

Section 500.100 **International Residential Code — Adoption — Amendments.**

- A. Adopt the 2018 International Residential Code and all supplements published by the International Code

Council for all one- and two-family residential construction as of May 1, 2021.

B. Appendix Chapters to be adopted: A, B, C, D, E, F, G, H, J, K, M, N, O, P, Q.

C. *Amendments.* Sections listed below are to be inserted in place of published Sections:

Section R108.2 Schedule of Fees. Fees for all building, sign, demolition or other permits required within shall be set forth in Section 140.050 of the Code.

Section 108.6 Work Commencing Before Permit Issuance. Any person who commences work on any project that requires a permit before the permit is issued will be assessed a double permit fee.

Section R113.4 Violation Penalties. Any person(s) found in violation of this code shall be guilty of a misdemeanor and subject to punishment in Section **100.110** of the Grain Valley Municipal Code.

Table R301.2 (1) shall include the following.

Ground Snow Load. 20

Wind speed 90 MPH

Seismic Design Category: A

Weathering: Severe

Frost Line Depth: 36 inches

Termite: Moderate to Heavy

Decay: Slight to Moderate

Winter Design Temperature: 6

Ice Shield Underlayment Required: Yes

Flood Hazards: January 20, 2017

Air Freezing Index: 1,500 or less

Mean Annual Temperature: 55

Manual J Design Criteria is hereby Deleted.

Section R302.2 Townhouses is hereby amended to read as follows. Each townhouse shall be considered a separate building and shall be separated by fire-resistance-rated wall assemblies meeting the requirements of Section R302.1 for exterior walls.

Exception: A common 2-hour fire-resistance-rated wall assembly tested in accordance with ASTM E119 or UL 263 is permitted for townhouses if such walls do not contain plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. The wall shall be rated for fire exposure from both sides and shall extend to and be tight against exterior walls and the underside of the roof sheathing. Electrical installations shall be installed in accordance with Chapters 34 through 43. Penetrations of electrical outlet boxes shall be in accordance with Section R302.4.

Section R302.2.1 Continuity is hereby amended to read as follows. The fire-resistance-rated wall or assembly separating townhouses shall be continuous from the foundation to the underside of the roof sheathing, deck or slab. The fire-resistance rating shall extend the full length of the wall or assembly, including wall extensions through and separating attached enclosed accessory structures.

Section R302.2.2 Parapets is hereby amended to read as follows. Parapets constructed in accordance with Section R302.2.3 shall be constructed for townhouses as an extension of exterior walls or common walls in accordance with the following:

1.

Where roof surfaces adjacent to the wall or walls are at the same elevation, the parapet shall extend not less than 30 inches above the roof surfaces.

2.

Where roof surfaces adjacent to the wall or walls are at different elevations and the higher roof is not more than 30 inches above the lower roof, the parapet shall extend not less than 30 inches above the lower roof surface.

Exception: A parapet is not required in the two cases above when the roof is covered with a minimum class C roof covering, and the roof decking or sheathing is of noncombustible materials or approved fire-retardant-treated wood for a distance of 4 feet on each side of the wall or walls, or one layer of 5/8 inch Type X gypsum board is installed directly beneath the roof decking or sheathing, supported by a minimum of nominal 2-inch ledgers attached to the sides of the roof framing members, for a minimum distance of 4 feet on each side of the wall or walls and there are no openings or penetrations in the roof within 4 feet of the common walls.

3.

A parapet is not required where roof surfaces adjacent to the wall or walls are at different elevations and the higher roof is more than 30 inches above the lower roof. The common wall construction from the lower roof to the underside of the higher roof deck shall have not less than a 1-hour fire-resistance rating. The wall shall be rated for exposure from both sides.

Section R302.2.4 Structural independence is hereby amended to read as follows. Each individual townhouse shall be structurally independent.

Exceptions:

- I. Foundations supporting exterior walls or common walls.
- II. Structural roof and wall sheathing from each unit may fasten to the common wall framing.
- III. Nonstructural wall and roof coverings.
- IV. Flashing at termination of roof covering over common wall.
- V. Townhouses separated by a common 2-hour wall fire-resistance-rated wall as provided in Section R302.2

Section R303.3 Bathrooms is hereby amended to read as follows. Bathrooms, water closet compartments and other similar rooms shall be provided with aggregate glazing area in windows of not less than 3 square feet (0.279 m²), one-half of which must be openable.

Exception. The glazed area shall not be required where artificial light and mechanical ventilation system are provided. The minimum ventilation rate shall be 50 cfm (23.6L/s) for intermittent ventilation or 20 cfm (9.4 L/s) for continuous ventilation. Ventilation air from the space shall be exhausted directly outside. The point of discharge of the exhaust air shall be at least 3 feet from any opening into the building.

International Residential Code Section R303.4 *Mechanical Ventilation* is hereby deleted.

Section R311.3.2 Floor Elevations for other exterior doors is hereby amended to read as follows. Doors other than the required egress door shall be provided with landings or floors not more than 7 ¼ inches (196 mm) below the top of the threshold.

Exception. A landing is not required where a stairway of 3 or fewer risers is located on the exterior side of the door, provided the door does not swing over the stairway.

Section R311.7.8.5 Grip size shall hereby be amended as follows. Add exception, handrails provided at other non-required exterior stairs may have a maximum horizontal cross-sectional dimension of 3 ½ inches and shall be easily graspable.

Section R313 Automatic fire sprinkler systems is hereby amended to read as follows. A builder of a one-and two-family dwelling or townhouse shall offer to any purchaser, on or before the time of entering into a purchase contract the option, at the purchaser's cost, to install or equip fire sprinklers in the one- and two-family dwelling or townhouse. Notwithstanding any other provisions of law to the contrary, no purchaser of such one-and two-family dwelling or townhouse shall be denied the right to install a fire sprinkler system in such dwelling or townhouse purchased. The provisions of this section, which is intended to mirror the requirements of section RSMo 67.281, shall expire on December 31st, 2022.

1. International Residential Code Section R313.1 *Townhouse automatic fire sprinkler system* is hereby deleted.
2. International Residential Code Section R313.2 *One-and two-family automatic fire sprinkler system* is hereby deleted.
3. International Residential Code Section R317.1.1 *Field treatment* is hereby deleted.
4. International Residential Code Section R318.1.2 *Field treatment* is hereby deleted.
5. International Residential Code Section R326 *Swimming pools, spas and hot tubs* is hereby deleted.

Section 328 Building Security is hereby added to the Grain Valley Code.

Subsection R328 is hereby added to the Grain Valley Code and shall read as follows:

R328.1 Purpose. The purpose of this Section is to establish minimum standards that incorporate physical security to make dwelling units resistant to unlawful entry.

R328.1.1 Scope. The provisions of this Section shall apply to all new structures and to alterations, additions and repairs as stipulated in Appendix J of the International Residential Code.

R328.2 Doors. Except for vehicular access doors, all exterior doors of residential buildings and attached garages, including the doors leading from the garage area into the dwelling unit, shall comply with Sections R328.2.1 through R324.2.5 for the type of door installed.

R328.2.1 Wood doors. Where installed, exterior wood doors shall be of solid core construction such as high density particleboard, solid wood or wood block core with a minimum thickness of one and three-fourths (1 3/4) inches at any point. Doors with panel inserts shall be solid wood. The panels shall be a minimum of one (1) inch thick. The tapered portion of the panel that inserts into the groove of the door shall be a minimum of one-quarter (1/4) inch thick. The groove shall be a dado groove or applied molding construction. The groove shall be a minimum of one-half (1/2) inch in depth.

R328.2.2 Steel doors. Where installed, exterior steel doors shall be a minimum thickness of 24 gauge.

R328.2.3 Fiberglass doors. Fiberglass doors shall have a minimum skin thickness of one-sixteenth (1/16) inch and have reinforcement material at the location of the deadbolt.

R328.2.4 Double doors. Where installed, the inactive leaf of an exterior double 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.

R328.2.5 Sliding doors. Where installed, exterior sliding doors shall comply with all of the following requirements:

- A. Sliding door assemblies shall be installed to prevent the removal of the panels and the glazing from the exterior with the installation of shims or screws in the upper track.
- B. All sliding glass doors shall be equipped with a secondary locking device consisting of a metal pin or a surface mounted bolt assembly. 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. The surface mounted bolt assembly shall be installed at the base of the door.

R328.3 Door frames. The exterior door frames shall be installed prior to a rough-in inspection. Door frames shall comply with Sections R324.3.1 through R324.3.3 for the type of assembly installed.

R328.3.1 Wood frames. Wood door frames shall comply with all of the following requirements:

- A. All exterior door frames shall be set in frame openings constructed of double studding or equivalent construction, including garage doors, but excluding overhead doors. Door frames, including those with sidelights, shall be reinforced in accordance with ASTM F476-84 Grade 40.
- B. In wood framing, horizontal blocking shall be placed between studs at the door lock height for three (3) stud spaces or equivalent bracing on each side of the door opening.

R328.3.2 Steel frames. All exterior door frames shall be constructed of eighteen (18) gauge or heavier steel and reinforced at the hinges and strikes. All steel frames shall be anchored to the wall in accordance with manufacturer specifications. Supporting wall structures shall consist of double studding or framing of equivalent strength. Frames shall be installed to eliminate tolerances inside the rough opening.

R328.3.3 Door jambs. Door jambs shall be installed with solid backing in a manner so that no void

exists between the strike side of the jamb and the frame opening for a vertical distance of twelve (12) inches each side of the strike. Filler material shall consist of a solid wood block. Door stops on wooden jambs for in-swinging doors shall be of one-piece construction. Jambs for all doors shall be constructed or protected so as to prevent violation of the strike.

R328.4 Door hardware. Exterior door hardware shall comply with Sections R324.4.1 through R328.4.6.

R328.4.1 Hinges. Hinges for exterior door hardware shall comply with the following:

- A. At least two (2) screws, three (3) inches in length, penetrating at least one (1) inch into wall structure shall be used. Solid wood fillers or shims shall be used to eliminate any space between the wall structure and door frame behind each hinge.
- B. Hinges for out-swinging doors shall be equipped with mechanical interlock to preclude the removal of the door from the exterior.

R328.4.2 Strike plates. Exterior door strike plates shall be a minimum of eighteen (18) gauge metal with four (4) offset screw holes. Strike plates shall be attached to wood with not less than three (3) inch screws, which shall have a minimum of one (1) inch penetration into the nearest stud. Note: For sidelighted units, refer to Section R328.4.6.

R324.4.3 Escutcheon plates. All exterior doors shall have escutcheon plates or wraparound door channels installed around the lock protecting the door's edge.

R328.4.4 Locks. Exterior doors shall be provided with a locking device complying with one of the following:

Single cylinder deadbolt shall have a minimum projection of one (1) inch. The deadbolt shall penetrate at least three-fourths (3/4) inch 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 (1/4) inch in diameter and two and one-fourth (2 1/4) inches in length. Bolt assembly (bolt housing) unit shall be of single piece construction. All deadbolts shall meet ANSI grade 2 specifications.

R328.4.5 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 of not less than one hundred eighty degrees (180°) through windows or through view ports.

R328.4.6 Sidelighted entry doors. Sidelight door units shall have framing of double stud construction or equivalent construction complying with Sections R324.3.1, R324.3.2 and R324.3.3. The door frame that separates the door opening from the sidelight, whether on the latch side or the hinge side, shall be double stud construction or equivalent construction complying with Sections R324.3.1 and R328.3.2. Double stud construction or construction of equivalent strength shall exist between the glazing unit of the sidelight and wall structure of the dwelling.

R328.5 Street numbers. Street numbers shall comply with Section R321.1.

R328.6 Exterior Lighting. Exterior lighting shall comply with Section E3803.3.

R328.7 Alternate material and methods of construction. The provisions of this Section are not intended to prevent the use of any material or method of construction not specifically prescribed by this Section, provided any such alternate has been approved by the enforcing authority, nor is it the intention of this Section to exclude any sound method of structural design or analysis not specifically provided for in the Section. The materials, methods of construction, and structural design limitations provided for in this Section shall be used, unless the enforcing authority grants an exception. The enforcing authority is authorized to approve any such alternate provided they find the proposed design, materials and methods of work to be at least equivalent to those prescribed in the Section in quality, strength, effectiveness, burglary resistance, durability and safety.

Section R401.3.1 Minimum standards is hereby amended to read as follows.

- A. All drainage facilities shall be designed to carry waters to the nearest drainage way, storm sewer conveyance, or other approved point of collection and conveyance. Erosion of ground in the area of discharge shall be prevented by installation of erosive control devices. Unless specified drainage ways and swales are specifically approved by the Building Official or City Engineer, abutting property lines between structures shall be designed to function as drainage ways. The toe of slopes shall be set back from the property line a minimum of one foot. The area surrounding the building foundation shall have a drainage gradient as provided for in the International Residential Code, as amended from time to time with a drainage gradient thereafter of not less than two percent toward approved drainage facilities unless waved by the Building Official or City Engineer.
- B. Prohibited Conduct: No person shall allow or cause:
 - I. Obstruction to be created, installed or maintained within any drainage way, detention facility, or engineered swale which will create ponding on adjacent property, divert water onto adjoining property, or impede drainage. Fences may be erected in such areas provided they do not unnecessarily restrict the flow of water.
 - II. Water from intermittent sources such as discharges from sump pumps, downspouts, foundation drains, swimming pools, swimming pool backwashes, or other similar sources excluding lawn sprinklers to be discharged closer than five feet to any adjoining property line.

Section R403.1.1.1 Footing reinforcement is hereby added to read as follows. Footings for basement foundation walls shall have a minimum reinforcement consisting of not less than two No. 4 bars, uniformly spaced, located a minimum of 3 inches clear from the bottom and edges of the footing.

Section R404.1.7 Backfill placement is hereby amended to read as follows. Backfill shall not be placed against the wall until the wall has sufficient strength or has been sufficiently braced to prevent damage by the backfill.

Exception: Such bracing is not required for walls supporting less than 4 feet (1219 mm) of unbalanced backfill.

Section 405.2.3 Drainage system is hereby amended to read as follows. A sump shall be provided to drain the porous layer, footings, and foundations that retain earth and enclose habitable or usable spaces located below grade that do not drain and discharge by gravity to an approved storm sewer system or to daylight. The sump shall be at least 24 inches (610 mm) in diameter or 20 inches square (0.0129 m²), shall extend at least 24 inches (610 mm) below the bottom of the basement floor and shall be capable of positive gravity or mechanical drainage to remove any accumulated water. The drainage system shall discharge into an approved storm sewer system or daylight.

Section R506.2.4 Reinforcement support is hereby amended to read as follows. Any slab-on-ground will require a minimum of reinforcement of number 4 bars tied and placed on chairs (2) two feet on center. Any structural slab or slab constructed on fill will require reinforcement of number 4 bars tied and placed on chairs (12) twelve inches on center.

Section R507.9.2 Lateral Connection is hereby deleted.

Section R602.6.1 Drilling and notching of the top plate is hereby amended to read as follows. When

piping or ductwork is placed in or partly in an exterior wall or interior loadbearing wall, necessitating cutting, drilling or notching of the top plate by more than 50 percent of its width, a galvanized metal tie not less than 0.054 inch thick (1.37 mm) (16ga) and 1 ½ inches (38 mm) wide shall be fastened across and to the plate at each side of the opening with not less than four 10d nails (0.148 inch diameter) having a minimum length of 1 ½ inches (38 mm) at each side or equivalent. The metal tie must extend a minimum of 6 inches past the opening. See figure R602.6.1

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

Section R801.3 Roof drainage is hereby amended to read as follows. All dwellings shall have a controlled method of water disposal from roofs that will collect and discharge all roof drainage to the ground surface at least three (3) feet from the foundation walls or to an approved drainage system.

Section 908.1 General is hereby amended to read as follows. Materials and methods of application used for re-covering or replacing an existing roof covering shall comply with the requirements of Chapter 9 as amended. Re-roofing includes any repairs of more than 10% of the total roof covering in any three-year period. A repair of 10% or less of the total roof covering in any three-year period may utilize approved roofing materials comparable to the existing roofing materials.

Exception: Re-roofing shall not be required to meet the minimum design slope requirement of one-quarter unit vertical in 12 units horizontal (2-percent slope) in Section R905 for roofs that provide positive roof drainage.

Chapter 11 Energy Efficiency is hereby deleted and replaced with the 2006 International Energy Conservation Code.

Chapter 12 Mechanical Administration is hereby deleted.

Section G2417.4.1 Test pressure is hereby amended to read as follows. The test pressure to be used shall be not less than one- and one-half times the proposed maximum working pressure, but not less than 10 psig (68.9kPa) irrespective of design pressure. For welded piping, and for piping carrying gas at pressures in excess of fourteen (14) inches water column pressure, the test pressure shall not be less than 60 psig. Where the test pressure exceeds 125 psig (862 kPa gauge), the test pressure shall not exceed a value that produces a hoop stress in the piping greater than 50 percent of the specified minimum yield strength of the pipe.

Chapter 25 Plumbing Administration is hereby deleted.

Section P2601.2.1 Prohibited drainage and connections is hereby added to read as follows. Sanitary sewer systems shall be designed, built and maintained in such a manner to prevent all storm or ground water from draining, discharging or entering into the sanitary sewer system. Connection of sump pump, foundation drains, yard drains, gutter downspouts, floor drains located in garages and any other storm water drainage receptacles(s) or systems(s) are specifically prohibited from being connected to the sanitary sewer system.

Section P2603.5 Freezing is hereby amended to read as follows. Water, soil or waste pipes shall not be installed outside of a building, in exterior walls, in attics or crawl spaces, or in any other place subjected to freezing temperature unless adequate provision is made to protect it from freezing by insulation or heat or both. Water service pipe shall be installed not less than 42 inches in depth below grade.

Section P2603.5.1 Sewer depth is hereby amended to read as follows. Building sewers shall be a minimum of 12 inches below grade.

Section P2719.1 Floor drains is hereby amended to read as follows. Floor drains shall have waste outlets not less than 2 inches in diameter and a removable strainer. Floor drains shall be constructed so that the drain can be cleaned. Access shall be provided to the drain inlet. Floor drains shall not be located under or have their access restricted by permanently installed appliances. Floor drains located in garages must be daylighted.

Section P2902.5.3 Lawn irrigation systems is hereby amended to read as follows. The potable water supply to lawn irrigation systems shall be protected against backflow by a device approved by the Missouri Department of Natural Resources. Backflow devices install within a structure shall be installed a minimum of 6 inches away from any wall or vertical obstruction. The backflow device shall be installed between 12 inches and 48 inches above the floor and shall be accessible.

Section P2902.6.2 Protection of backflow preventers is hereby amended to read as follows. Backflow preventers shall not be located in areas subject to freezing except where they can be removed by means of unions, or are protected by heat, insulation or both.

Exception: In-ground backflow preventers installed for lawn irrigation systems.

Section P3002.2 Building sewer is hereby amended to read as follows. Building sewer piping shall be as shown in Table P3002.2. Forced main sewer piping shall conform to one of the standards for ABS plastic pipe, cast-iron pipe, copper or copper-alloy tubing, PVC plastic pipe or pressure-rated pipe listed in Table P3002.2. In addition, building sewer piping shall be a minimum of schedule 40 PVC/ABS or equivalent unless approved by the Building Official or City Engineer.

Section P3005.4.2 Building drain and sewer size and slope is hereby amended to read as follows. Pipe sizes and slope shall be determined from Table P3005.4.2 on the bases of drainage load in fixture units (d.f.u.) computed from Table P3004.1. The minimum size of a building sewer serving a dwelling unit shall be four inches.

Section P3008.1 Backwater valves is hereby deleted.

Section P3114.3 Where permitted is hereby amended to read as follows. Individual vents, branch vents, circuit vents and stack vents shall be permitted to terminate with a connection to an air admittance valve only when approved by the Building Official.

Section E3601.6.2 Service disconnect location is hereby amended to read as follows. The service disconnecting means shall be installed at a readily accessible location either outside of a building or inside nearest the point of entrance of the service conductors. When service conductors are more than 10 feet in length from the point of entry to the service panel, a separate means of disconnect shall be installed at the service cable entrance to the building or structure. Service disconnecting means shall not be installed in bathrooms. Each occupant shall have access to the disconnect serving the dwelling unit in which they reside.

Section E3902.2 Garage and accessory building receptacles is hereby amended to read as follows. All 125-volt, single-phase, 15- and 20-ampere receptacles installed in garages and grade level portions of unfinished accessory buildings used for storage or work areas shall have ground-fault circuit interrupter protection for personnel.

Exceptions:

- I. Receptacles that are not readily accessible such as a ceiling mounted receptacle for a garage door opener.
- II. A single receptacle supplied by a dedicated branch circuit that is located and identified for a specific use by a chord-and-plug connected appliance such as a refrigerator, freezer or sump pump.
- III. A receptacle supplying only a permanently installed fire alarm or burglar alarm system.

Section E3902.5 Unfinished basement receptacles is hereby amended to read as follows. All 125-volt, single-phase, 15- and 20-ampere receptacles installed in unfinished basement shall have ground-fault circuit interrupter protection for personnel. For the purposes of this section, unfinished basements are defined as portions or areas of the basement not intended as habitable rooms and limited to storage areas, work areas, and the like.

Exceptions:

- I. Receptacles that are not readily accessible such as a ceiling mounted receptacle.
- II. A single receptacle supplied by a dedicated branch circuit that is located and identified for a specific use by a chord-and-plug connected appliance such as a refrigerator, freezer or sump pump.
- III. A receptacle supplying only a permanently installed fire alarm or burglar alarm system.

Section E3902.16 Arc-fault circuit-interrupter protection is hereby amended to read as follows. Branch circuits that supply 120-volt, single phase 15- and 20- ampere outlets installed in bedrooms shall be protected by any of the following arc-fault circuit interrupter. (all options listed in this section have not been amended)

Section E4002.14 Tamper-resistant receptacles is hereby deleted.

Article VII
Electrical Code

Section 500.120 Electrical Code — Adoption — Amendments.

- A. Adopt the 2017 National Electrical Code and supplements published by the National Fire Protection Association for all construction other than one- and two-family residential for use May 1, 2021.
- B. Appendix Chapters to be adopted: Annex H
 - 1. Delete Annex H Section 80.2, Chief Electrical Inspector, and Electrical Inspector. Refer to Section 103.1 of the 2012 International Building Code.
 - 2. Delete Annex H Section 80.13 (13), delete question of ___ days and insert "24 hours".
 - 3. Delete Annex H Section 80.15 in its entirety.
 - 4. In Annex H Section 80.25 (B) Special Considerations. Change last sentence to read, "the Building Official, or his authorized representative, shall determine what needs are permitted under this provision".
 - 5. Delete Section Annex H 80.27 Inspector's Qualifications in its entirety.
- C. *Amendments.* Sections listed below are to be deleted.

Article 210.2 Arc-Fault Circuit-Interrupted Protection.

Section 210.8 (A) (5). Unfinished portions or areas of the basement not intended as habitable rooms is hereby amended to read as follows. All 125-volt, single phase 15- and 20-ampere receptacles installed in unfinished basements shall have ground fault circuit interrupter protection for personnel. For the purposes of this section, unfinished basements are defined as portions or areas of the basement not intended as habitable rooms and limited to storage areas, work areas, and the like.

Exceptions:

- I. Receptacles that are not readily accessible such as ceiling mounted receptacles for a garage door opener.
- II. A single receptacle supplied by a dedicated branch circuit that is located and identified for a specific use by a cord-and-plug-connected appliance such as a refrigerator, freezer or sump pump.
- III. A receptacle supplying only a permanently installed fire alarm or burglar alarm system.

Section 230.70 (A) (1) is hereby amended to read as follows. The service disconnecting means shall be installed at a readily accessible location either outside of a building or inside nearest the point of entrance of the service conductors. When service entrance conductors are more than ten (10) feet in length from the point

of entry to the service panel, a separate means of disconnect must be installed at the service cable entrance to the building or structure.

Article VIII Property Maintenance Code

Section 500.140 Property Maintenance Code — Adoption — Amendments.

- A. Adopt the 2018 International Property Maintenance Code published by the International Code Council for use May 1, 2021.
- B. *Amendments.* Sections listed below are to be inserted in place of published Sections.

Section 106.4 Violation Penalties. Any person(s) found in violation of this code shall be guilty of a misdemeanor and subject to punishment in Section **100.110** of the Grain Valley Municipal Code.

Article IX Mechanical Code

Section 500.150 Mechanical Code — Adoption — Amendments.

- A. Adopt the 2018 International Mechanical Code and all supplements published by the International Code Council for all new construction other than one- and two-family residential construction for use as of May 1, 2021.
- B. Appendix Chapters to be adopted: A.
- C. *Amendments.* Sections listed below are to be inserted in place of published Sections.

Section 108.4 Violation Penalties. Any person(s) found in violation of this code shall be guilty of a misdemeanor and subject to punishment in Section **100.110** of the Grain Valley Municipal Code.

International Mechanical Code Section 401.2 *Ventilation required* is hereby amended to read as follows. Every occupied spaced shall be ventilated by natural means in accordance with Section 402 or by mechanical means in accordance with Section 403.

Article X Plumbing Code

Section 500.160 Plumbing Code — Adoption — Amendments.

- A. Adopt the 2018 International Plumbing Code and all supplements published by the International Code Council for all construction other than one- and two-family residential construction for use as of May 1, 2021.
- B. Appendix Chapters to be adopted: B, D, E, F.
- C. *Amendments.* Sections listed below are to be inserted in place of published Sections.

Section 108.4 Violation Penalties. Any person(s) found in violation of this code shall be guilty of a misdemeanor and subject to punishment in Section **100.110** of the Grain Valley Municipal Code.

Section 305.4.1 *Sewer depth* shall be amended as follows. Building Sewers shall be installed a minimum of twelve (12) inches below grade.

Section 312.10 Inspection and testing of backflow prevention assemblies shall be amended as follows. Inspection and testing of backflow prevention assemblies shall be in accordance with the policies prescribed by the Public Works Department of the City of Grain Valley, MO.

Section 403.4.1 Directional signage is hereby deleted.

Section 410.4 Substitution is hereby amended to read as follows. Where restaurants provide drinking water in a container free of charge, drinking fountains shall not be required in those restaurants. In other occupancies where drinking fountains are required, water coolers and bottled water dispensers shall be permitted to be substituted for the required drinking fountain.

Section 607.2 Hot and tempered water supply to fixtures is hereby amended to read as follows. The developed length of hot or tempered water piping, from the source of hot water to the fixtures that require hot or tempered water, shall not exceed 100 feet.

Section 608.15.2 Protection of Backflow preventers is hereby amended to add the following language.

Exception: In-ground back-flow devices for lawn irrigation systems.

Section 714.1 Backwater Valves is hereby deleted.

Section 903.1 Roof Extension is hereby amended to read as follows. Open vent pipes that extend through a roof shall be terminated not less than six (6) inches (152.4mm) above the roof. Where a roof is to be used for assembly or as a promenade, observation deck, sunbathing deck or similar purposes, open vent pipes shall terminate not less than seven (7) feet (2,134 mm) above the roof.

Section 918.1 General is hereby amended to read as follows. Air admittance valves are only allowed when approved by the Building Official. Vent systems utilizing air admittance valves shall comply with this section. Stack-type air admittance valves shall conform to ASSE 1050. Individual and branch type air admittance valves shall conform to ASSE 1051.

Section 1002.4 Trap seals is hereby amended to read as follows. Each fixture trap shall have a liquid seal of not less than two (2) inches (51 mm) and not more than four (4) inches (102 mm), or deeper for special designs relating to accessible fixtures. Where a trap seal is subject to loss by evaporation, a deep-seal trap consisting of a four (4) inch (102 mm) seal or trap seal primer valve shall be installed. A trap seal primer shall conform to ASSE 1018 or ASSE 1044.

Section 1101.3 Prohibited drainage is hereby amended to read as follows. Sanitary sewer systems shall be designed, built and maintained in such a manner to prevent all storm or ground water from draining, discharging or entering into the sanitary sewer system. Connection of sump pumps, foundation drains, yard drains, gutter downspouts and any other storm water drainage receptacle or system are specifically prohibited from being connected to the sanitary sewer system.

Section 1113.1.1 Pump capacity and head is hereby amended to read as follows. Sumps receiving storm water from any exposed exterior drain or opening shall be provided with a back-up system capable of assuring proper sump operation in case of power failure.

Article XI Fuel Gas Code

Section 500.161 Fuel Gas Code — Adoption — Amendments.

- A. Adopt the 2018 International Fuel Gas Code and all supplements published by the International Code Council for all new construction other than one- and two-family residential construction for use as of May 1, 2021.
- B. Appendix Chapters to be adopted: A, B, C, D.
- C. *Amendments.* Sections listed below are to be inserted in place of published Sections.

Section 108.4 Violation Penalties. Any person(s) found in violation of this code shall be guilty of a misdemeanor and subject to punishment in Section **100.110** of the Grain Valley Municipal Code.

Section 403.4.3 Copper and brass is hereby amended to read as follows. Copper and brass tubing shall not be utilized to distribute fuel gas.

Section 403.4.4 Aluminum is hereby amended to read as follows. Aluminum or aluminum alloy tubing shall not be utilized for the distribution of fuel gas.

Section 403.5.1 Steel tubing is hereby amended to read as follows. Steel tubing shall not be utilized to distribute natural gas nor shall it be utilized to distribute any other fuel gas within a building or structure.

Section 403.5.2 Copper and brass tubing is hereby amended to read as follows. Copper and brass tubing shall not be utilized to distribute natural gas nor shall it be utilized to distribute any other fuel gas within a building or structure.

Section 403.5.3 Aluminum tubing is hereby amended to read as follows. Aluminum tubing shall not be utilized to distribute natural gas nor shall it be utilized to distribute any other fuel gas within a building or structure.

Section 406.4.1 Test pressure is hereby amended to read as follows. The test pressure to be used shall not be less than one and one-half times the proposed maximum working pressure, but not less than ten (10) psig (68.9kPa) irrespective of design pressure. Where the test pressure exceeds one hundred twenty-five (125) psig (862kPa), the test pressure shall not exceed a value that produces a hoop stress in the piping greater than fifty (50) percent of the specified minimum yield strength of the pipe.

Article XV
Swimming Pool and Spa Code

Section 500.162 Swimming Pool and Spa Code — Adoption — Amendments.

A. Adopt the 2018 International Swimming Pool and Spa Code published by the International Code Council for all new construction for pools and spas for use as of May 1, 2021.

B. *Amendments.* Sections listed below are to be inserted in place of published Sections.

Section 107.4 Violation Penalties. Any person(s) found in violation of this code shall be guilty of a misdemeanor and subject to punishment in Section **100.110** of the Grain Valley Municipal Code.