Ordinance to Amend Chapter 500 – Building Code and Building Regulations of the Willard Code, by Adopting the International Code Council 2018 Codes as Supplemented or Amended and the 2017 NEC Codes as Supplemented or Amended. (2nd Read)

Discussion

First Reading: **6-24-2024**

Council Bill No.: -24-26

Second Reading: 07-08-2024

Ordinance No 240624A

An Ordinance to amend Chapter 500 – Building Code and Building Regulations of the Willard Code, by adopting the International Code Council 2018 Codes as supplemented or amended and the 2017 NEC Code as supplemented or amended.

WHEREAS, the Board of Aldermen of the City of Willard, Missouri (the "Board"), has determined that certain updates and charges are necessary in their building codes and regulations; and

WHEREAS, the Board of Aldermen should review and adjust the building codes and regulations as they are updated and when deemed necessary

BE IT ORDAINED AND RESOLVED BY THE BOARD OF ALDERMEN OF THE CITY OF WILLARD, GREENE COUNTY, MISSOURI as follows:

SECTION I: The publication known as the International Code Council 2018 codes; International Building Code, International Residential Code, International Plumbing Code, International Mechanical Code, International Fuel Gas Code, International Fire Code, International Energy Conservation Code, International Existing Building Code, International Property Maintenance code and the 2017 National Electrical Code, as published by the International Code Council, Inc., and the National Fire Protection Association and is hereby referred to, adopted and made part hereof as if fully set out in ordinance, with the additions, insertions, deletions and changes, prescribed in the attachment to this ordinance as Exhibit A.

SECTION II: That all previous ordinances 500.010 to 500.105 are repealed and replaced with the ordinances prescribed and set out in full in Exhibit A.

SECTION III: That all other ordinances and codes or parts of ordinances or codes in

conflict are hereby repealed.

SECTION IV: This Ordinance shall be in full force and effect from and after the date of its passage by the Board of Alderman and approval of the Mayor.

| Read two times and passed at meeting: | |
|---------------------------------------|-------------------|
| Approved as to form: City Attorney | |
| Attested by: | Approved by: |
| Janice Gargus, City Clerk | Troy Smith, Mayor |

EXHIBIT "A"

Article I International Building Code

Section 500.010 Adoption Of International Building Code. (IBC) [Ord. No. 170213A § 2, 2-27-2017]

A certain document, one (1) copy of which is on file and open for public inspection in the office of the City Clerk of the City of Willard, Missouri, being marked and designated as the International Building Code 2018, including Appendices A, C, D, E, F, G, H, I and J as published by the International Code Council, be and is hereby adopted as the Building Code of the City of Willard for the control of buildings and structures as herein provided; and each and all of the regulations, provisions, penalties, conditions and terms of said code are hereby referred to, adopted and made a part hereof, as if fully set out in this Chapter, with the additions, insertions, deletions and changes, if any, prescribed in Section 500.015 of this Chapter.

Section 500.015 Additions, Insertions And Changes. [Ord. No. 170213A § 2, 2-27-2017]

- A. The International Building Code 2018 adopted by Section 500.010 is hereby amended by substituting the following Sections or portions of Sections for those Sections or portions of Sections with corresponding numbers of the International Building Code 2018, or where there is no corresponding Section in the code, the following Sections shall be enacted as additions to the code.
- 1. Section 101.1 Insert: "The City of Willard."
- 2. Fee "as adopted by City of Willard."
- 3. Section 114.4 Violation Penalties. Is hereby amended to add an additional sentence to the end of the paragraph as follows: "The penalties are set forth in Section **500.150** of the Code of Ordinances of the City of Willard."
- 4. Section 114.3 is amended to add an additional sentence to the end of the paragraph as follows: "The penalties are set forth in Section 500.150 of the Code of Ordinances of the City of Willard."
- 5. Delete Section 1608.2 in its entirety and add in its place a new Section 1608.2 to read as follows: "1608.2 Ground Snow Load: The ground snow load for the City of Willard, Missouri, shall be a minimum of twenty (20) pounds per square foot."
- 6. Section 1612.3 Insert: "City of Willard."
- 7. Section 1612.3 Insert: "as adopted by the City of Willard."
- 8. Section 423 is amended to include the following addition: Section 423.4.3 Group E Occupancy Campuses: Where a Group E Occupancy building having an aggregate occupant load of 50 or more is added to an existing Group E occupancy campus, a storm shelter complying with ICC 500 and capable of housing the total occupant load of all the Group E Occupancy buildings on campus shall be installed when the additional building increases the floor area of the classrooms, vocational rooms, and offices of the campus by more than 25%.

Article II International Residential Code

Section 500.020 Adoption Of International Residential Code.(IRC) [Ord. No. 170213A § 2, 2-27-2017]

A certain document, one (1) copy of which is on file and open for public inspection in the office of the City Clerk of the City of Willard, Missouri, being marked and designated as the International Residential Code 2018, including Appendices A, B, C, D, E, G, H, J, K, M, N and Q as published by the International Code Council, be and is hereby adopted as the Residential Code of the City of Willard for regulating the design, construction, quality of materials, erection, installation, alteration, repair, location, relocation, replacement, addition to, use or maintenance of one- and two-family dwellings and town houses not more than three (3) stories in height in the City of Willard; and each and all of the regulations, provisions, penalties, conditions and terms of said code are hereby referred to, adopted and made a part hereof, as if fully set out in this Chapter, with the additions, insertions, deletions and changes, if any, prescribed in Section 500.025 of this Chapter.

Section 500.025 Additions, Insertions And Changes. [Ord. No. 170213A § 2, 2-27-2017]

A. The International Residential Code 2018 adopted by Section 500.020 is hereby amended by substituting the following Sections or portions of Sections for those Sections or portions of Sections with corresponding numbers of the International Residential Code 2018, or where there is no corresponding Section in the code, the following Sections shall be enacted as additions to the code.

Refer to the" City of Willard Missouri One & Two Family Residential Requirements" (IRC 2018) Revised March 2024

- 1. Section R101.1 Insert: "The City of Willard."
- 2. Section R103 "Department of Building Safety." Delete in its entirety. Insert, in lieu thereof, the following: "Refer to Section 103 of the International Building Code."
- 3. Section R113.4. Add a sentence to the end of the paragraph to read as follows: "The penalties are set forth in Section 500.150 of the Code of Ordinances of the City of Willard."
- 4. Insert the following values in Table R301.2(1):

Insert the following values in Table R301.2(1):

| Climate Zone | 4A |
|-------------------------------------|---------------------------------------|
| Ground Snow Load | 20 PSF |
| Wind Speed (mph) *d | 115 MPH |
| Seismic Design Category | В |
| Weathering *a | Severe |
| Frost Line Depth *b | 18 Inches |
| Termite *c | Moderate to Heavy |
| Decay | Slight to Moderate |
| Ice Shield Underlayment Required | No |
| Flood Hazard*g | As adopted by City of Willard |
| Air Freezing Index | 659 |
| Winter Design Temp | 9°F |
| Air Freezing Index | 1500 or less |
| Mean Annual Temp | 56°F |
| Elevation | 1237 feet |
| Latitude | 37°N, 93°W |
| Winter Heating | 11°F |
| Summer Cooling | 92°F |
| Altitude Correction Factor | 0.96 |
| Indoor Design Temperature | 70°F |
| Wind Velocity Heating | 15 mph if site specific speed unknown |
| Wind Velocity Cooling | 15 mph if site specific speed unknown |
| Coincident Wet Bulb | 74°F |
| Daily Range | M |

For St: 1 pound per square foot = 0.0479 kPa, 1 mile per hour = 0.447 m/s.

- a. Where weathering requires a higher strength concrete or grade of masonry than necessary to satisfy the structural requirements of this code, the frost line depth strength required for weathering shall govern. The weathering column shall be filled in with the weathering index, "negligible," "moderate" or "severe" for concrete as determined from Figure R301,2(4). The grade of masonry units shall be determined from ASTM C34, C55, C62, C73, C90, C129, C145, C216 or C652.
- b. Where the frost line depth requires deeper footings than indicated in Figure R403.1(1), the frost line depth strength required for weathering shall govern. The jurisdiction shall fill in the frost line depth column with the minimum depth of footing below finish grade.
- c. The jurisdiction shall fill in this part of the table to indicate the need for protection depending on whether there has been a history of local subterranean termite damage.
- d. The jurisdiction shall fill in this part of the table with the wind speed from the basic wind speed map [Figure R301.2(5)A]. Wind exposure category shall be determined on a site-specific basis in accordance with Section R301.2.1.4.
- e. The outdoor design dry-bulb temperature shall be selected from the columns of 97¹/₂-percent values for winter from Appendix D of the *International Plumbing Code*. Deviations from the Appendix D temperatures shall be permitted to reflect local climates or local weather experience as determined by the building official. [Also see Figure R301.2(1).]
- f. The jurisdiction shall fill in this part of the table with the seismic design category determined from Section R301.2.2.1.
- g. The jurisdiction shall fill in this part of the table with (a) the date of the jurisdiction's entry into the National Flood Insurance Program (date of adoption of the first code or ordinance for management of flood hazard areas), (b) the date(s) of the Flood Insurance Study and (c) the panel numbers and dates of the currently effective FIRMs and FBFMs or other flood hazard map adopted by the authority having jurisdiction, as amended.
- h. In accordance with Sections R905.1.2, R905.4.3.1, R905.5.3.1, R905.6.3.1, R905.6.3.1 and R905.8.3.1, where there has been a history of local damage from the effects of ice damming, the jurisdiction shall fill in this part of the table with "YES," Otherwise, the jurisdiction shall fill in this part of the table with "NO."
- . The jurisdiction shall fill in this part of the table with the 100-year return period air freezing index (BF-days) from Figure R493,3(2) or from the 100-year (99 percent) value on the National Climatic Data Center data table "Air Freezing Index-USA Method (Base 32"F)."
- j. The jurisdiction shall fill in this part of the lable with the mean annual temperature from the National Climatic Data Center data table "Air Freezing Index-USA Method (Base 32°F)."
- k. In accordance with Section R301.2.1.5, where there is local historical data documenting structural damage to buildings due to topographic wind speed-up effects, the jurisdiction shall fill in this part of the table with "YES," Otherwise, the jurisdiction shall indicate "NO" in this part of the table
- t In accordance with Figure R301.2(5)A, where there is local historical data documenting unusual wind conditions, the jurisdiction shall fill in this part of the table with "YES" and identify any specific requirements. Otherwise, the jurisdiction shall indicate "NO" in this part of the table.
- m. In accordance with Section R301.2.1.2 the jurisdiction shall indicate the wind-borne debris wind zone(s). Otherwise, the jurisdiction shall indicate "NO" in this part of the table.
- n. The jurisdiction shall fill in these sections of the table to establish the design criteria using Table 1a or 1b from ACCA Manual J or established criteria determined by the jurisdiction
- o. The jurisdiction shall fill in this section of the table using the Ground Snow Loads in Figure R301 2(6).

- 1. Storage areas accessible from the exterior of the residence shall meet the requirements for dwelling/garage opening/penetration protection. R302.5 in the 2018 IRC.
- 2. Delete Section R302.13 Fire Protection of floors, in its entirety.
- 3. Amend Section R313 'Automatic Fire Sprinkler Systems' by deleting sub-section R313 in its entirety and enacting a new subsection which said new subsection shall read as follows: R313 Automatic Fire Sprinkler Systems. A builder of five or more connected units shall comply with the design and installation requirements of the 2012 International Residential Code suppressant separation as provided in Section R317 of the 2006 IRC or Section P2904 of the 2012 IRC at the builder's or purchaser's cost and option.
- 4. Repeal Section R315, Carbon monoxide alarms, subsection R315.3, as follows, where required in existing dwellings, in its entirety, and provide a new subsection R315.3 as follows:
- 5. R315.3 alterations and addition. When alterations or additions requiring a permit occur, or when one or more sleeping rooms are added or created in existing dwellings, the individual dwelling unit shall be equipped with carbon monoxide alarms as required for new dwellings.

Exceptions:

- a. Work involving the exterior surfaces of dwellings such as the replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of a porch or deck, are exempt from the requirements of this section.
- b. Installation, alteration, or repairs of plumbing or mechanical systems are exempt from the requirements of this section.
- 6. **R403.1.7.3 Foundation Elevation.** The foundation stem wall / slab elevation shall be a minimum of eighteen (18) inches above the street curb top of elevation.

Foundations and Footings

The minimum dimensions for footings are based on loading and an assumed allowable soil pressure of 2,000 pounds per square foot. Footing widths or the depth of footings below natural grade may have to be increased if the supporting soil is of a type not having an allowable bearing pressure of at least 2,000 pounds per square foot.

Depth: Footings are to be poured on a solid bearing surface. The bearing surface shall be a minimum of 18 inches below

finished grade.

| | Load Bearing of Soil (psf) | | | | |
|-------------|----------------------------|--------------------|-------------------|------------------|--|
| | 1500 | 2009 | 3000 | <u>></u> 4000 | |
| | Convention | nal Light Frame Co | enstruction | | |
| 1 Story | 12 | 12 | 12 | 12 | |
| 2 Story | 16 | 12 | 12 | 12 | |
| 3 Story | 24 | 17 | 12 | 12 | |
| 4-inch Bric | k Veneer Over Lig | tht Frame or 8-inc | h Hollow Concrete | Masonry | |
| 1 Story | 12 | 12 | 12 | 12 | |
| 2 Story | 24 | 16 | 12 | 12 | |
| 3 Story | 32 | 24 | 16 | 12 | |
| | 8-Inch Soli | d or Fully Grouted | Masonry | 1000 | |
| 1 Story | 16 | 12 | 12 | 12 | |
| 2 Story | 30 | 21 | 14 | 12 | |
| 3 Story | 42 | 32 | 21 | 16 | |

a. Where minimum footing width is 12 inches, use of a single wythe of solid or fully grouted 12-inch nominal concrete masonry units is permitted

General (R403.1): All exterior walls shall be supported on continuous solid or fully grouted masonry or concrete footings, crushed stone footings, wood foundations, or other approved structural systems which shall be of sufficient design to accommodate all loads according to Section R301 and to transmit the resulting loads to the soil within the limitations as determined from the character of the soil. Footings shall be supported on undisturbed natural soils or engineered fill. Concrete footing shall be designed and constructed in accordance with the provisions of Section R403 or in accordance with ACI 332.

Minimum size (R403.1.1): Minimum sizes for concrete and masonry footings shall be as set forth in Table R403.1 and Figure R403.1(1). The footing width, W, shall be based on the load-bearing value of the soil in accordance with Table R401.4.1. Spread footings shall be at least 6 inches in thickness, T. Footing projections, P, shall be at least 2 inches and shall not exceed the thickness of the footing. The size of footings supporting piers and columns shall be based on the tributary load and allowable soil pressure in accordance with Table R401.4.1. Footings for wood foundations shall be in accordance with the details set forth in Section R403.2, and Figures R403.1(2) and R403.1(3).

Slope (R403:1.5): The top surface of footings shall be level. The bottom surface of footings shall not have a slope exceeding one unit vertical in 10 units horizontal (10-percent slope). Footings shall be stepped where it is necessary to change the elevation of the top surface of the footings or where the slope of the bottom surface of the footings will exceed one unit vertical in ten units horizontal (10-percent slope).

Horizontal: A minimum of 2 strands of ½ rebar (#4) placed three (3) inches from the side and located in the bottom third of the footing. Joints are to be lapped and fied a minimum of fifteen (15) inches. Rebar must be supported on steel chairs or wickets designed for that purpose.

Vertical: A minimum of one (1) ½ -inch (#4) rebar every 6 feet, extending vertically from the footing and terminating within 3-inches of the top of the foundation wall. Vertical steel may be placed in footings before the concrete sets or drilled in place before the foundation wall forms are placed.

Exception: Vertical steel is not required in foundation walls less than 24 inches high.

7.

Foundation Drains Drains shall be provided around all foundations. Drainage tiles, gravel or crushed stone drains, perforated pipe or other approved systems or materials shall be installed at or below the area to be protected and shall discharge by gravity or mechanical means into an approved drainage system. Gravel or crushed stone drains shall extend at least 1 foot beyond the outside edge of the footing and 6 inches above the top of the footing and be covered with an approved filter membrane material. The top of open joints of drain tiles shall be protected with strips of building paper. Perforated drains shall be surrounded with an approved filter membrane or the filter membrane shall cover the washed gravel or crushed rock covering the drain. Drainage tiles or perforated pipe shall be placed on a minimum of 2 inches of washed gravel or crushed rock at least one sieve size larger than the tile joint opening or perforation and covered with not less than 6 inches of the same material.

Exception: A drainage system is not required when the foundation is installed on well-drained ground or sand-gravel mixture soils as defined by the Unified soils classification system (Group I Soils) See IRC 2012 R405.1

- 8. Repeal Section R507, Decks subsection 507.3.1 and 507.3.2 and provide new subsection 507.3.1 and 507.3.2 as follows:
 - a. Exterior footings shall be placed not less than 12 inches below the undisturbed ground surface.
 - b. 18" below finished grade.
 - c. Ledger shall be attached with lag screws or bolts per R-507.2.1(1)
 - d. 20" square or 20" round diameter
 - e. Post size shall be 6 x 6 and a maximum height shall be 14'0".
 - f. Exception: landings and decks less than 30" in height can use 4 x 4 post.
- 9. Repeal Section 802.11 Roof Tie-Down subsection
- Section 802.11.1 in its entirety and provide a new subsection R802.11.1 as follows:
- 11. 802.11.1 Uplift resistance, by adding the following; All rafters and trusses spaced not more than 24 inches on center shall be attached to their supporting wall assemblies by mechanical fasteners.

12. Firewall Rated Construction:

10.

Townhouses (R302): 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 & common walls. The common wall shall be a **two (2) hour block fire wall** from the top of the concrete footing continuously up to the underside of the roof decking material. The roof decking material shall be fire-retardant-treated wood for a distance of four (4) feet on each side of the wall with no penetrations through the sheathing.

Continuity (R302.2.1): 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.

The fire wall shall be labeled under the floor and in the attic area, in letters at least two (2) inches in height, stating "FIRE WALL: DO NOT PENETRATE OR DAMAGE" "No Penetrar O Dañar esta Pared Resistente al Fuego".

- 13. Chapter 11 Energy Efficiency. Repeal the language and all related references to this Chapter in the code and provide new language as follows:
- 14. Section N1101 Certificate. A permanent certificate shall be posted completed by the building or registered design professional. The certificate shall list the predominant R-values of insulation installed in or on the ceiling/roof, walls, foundation (slab, basement wall, crawlspace wall and/or floor), and ducts outside conditioned spaces; U-factors for fenestration; and solar heat gain coefficient (SHGC) of fenestration. Where there is more than one (1) value for each component, the certificate shall list the value covering the largest area. The certificate shall list the type and efficiency of heating, cooling and service water heating equipment.
- 15. Section M1600 Ducts. Supply and return air ducts in attics shall be insulated to a minimum of R-8, and in other areas a minimum of R-6.

16. Section N1102 Minimum Insulation And Fenestration Requirements By Component. Unfinished areas and areas without heating or cooling shall be exempt from the requirements.

Component insulation requirements for Climate Group 4A per 2012 IECC

Fenestration U Factor =0.35

Exception Skylights: Skylight U Factor = 0.60

Glazed Fenestration SHGC=NR- Applies to all Glazing

Attic = R-38

Wood Frame Wall R-Value= R-20 or R-13+3.8 - Cavity insulation - 13, continuous insulation is R-5 -1" Foam

Floors = R-19

Floor Cantilever = R-19

Basement Walls when finished = R-10/R-13 - 10/13 means r-10 continuous insulation on the interior or exterior of the building or r-13 cavity insulation on the interior of the basement wall

Slab = R-10 for 24" - 2" foam for two (2) feet

Crawl Space = R-10/13

- 17. **M1411.3 Condensate Disposal.** Amend as follows: Condensate shall not discharge into a building drain or sewer line, street, alley, or other area where it would cause a nuisance.
- 18. M1501.1 Outdoor Discharge. Exception 2. Mechanical exhaust from bathroom exhaust fans may be permitted to exhaust through the soffit provided that the duct shall terminate at the soffit pane with an approved mechanical louver or vent and the adjoining soffit space, for a distance of four (4) feet on either side of the penetration, shall be solid non-vented material.
- 19. **G2412.1 Scope.** Amend as follows: This Section shall govern the design, installation, modification, and maintenance of piping systems. The applicability of this code to piping extends from the point of delivery to the connections with the appliances and includes the design, materials, components, fabrication, assembly, installation, testing, inspection, operation, and maintenance of such piping system. The utility company gas meter location shall be in accordance with the requirements of the utility company.
- 20. **G2414.5.3 Copper Or Copper-Alloy Tubing.** Repeal this Section in its entirety.
- 21. **G2417.4.1 Test Pressure.** Delete in its entirety and provide new language as follows: The test pressure of the piping system for 2-pound gas pressure shall be twenty (20) psi.
- 22. **G2417.4.2 Test Duration.** Amend as follows: The test duration shall be not less than fifteen (15) minutes.
- 23. Chapter 25 Plumbing
 - a. Delete Section P2503.5.2 item 2 in its entirety.
 - b. Delete Section P2503.6
 - c. Residential Service Upgrades,
- 24. **P2603.6 Pipe Tracing.** All water service piping and building sewer piping shall be installed with a #14 tracer wire attached to the pipe from the point of connection to the water meter or sewer lateral to the point of entrance of the building.
- 25. **P2905** Heated Water Distribution Systems. Delete this Section in its entirety.

26. **P3303.1.5** Ground Water Required Discharge. Add the new Section as follows: A crawl space perimeter drain shall be installed along the outside of the crawlspace footing. The drain shall daylight and discharge a minimum of 10 feet from the building

Chapter 39 – Electrical

- 27. All structures used for residential purposes, requiring a service upgrade or modification, shall mandate the following electrical system improvements:
- 28. GFI receptacles in the kitchen(s) and bathroom(s) shall be installed if outlets are in existence at the time of the service upgrade.
- 29. Approved hard-wired, dual powered, interconnected smoke detectors shall be installed and located as per the adopted building code.
- 30. The kitchen shall be provided with a minimum of two (2) 20 amp GFCI Circuits
- 31. If a fire occurs, or other similar incident that damages any part of the electrical system within a residential structure, in addition to all damaged systems being repaired, it is mandated that all apparent hazards within the structure be corrected. Hard-wired, dual-powered, interconnected smoke detectors shall be installed and located as per the adopted building codes. If a service portion of the electrical system is damaged or upgraded as a result of a fire or other incident, it shall require that all affected electrical components be brought up to current code standards
- 32. A total partial upgrade of the electrical system may be required, if in the opinion of the Code Official, or his designee, the condition of the existing electrical system constitutes a potential threat to the safety and welfare of current or future occupants.
- 33. Amend Section E3902, Ground-fault and arc-fault circuit-interrupter protection, subsection E3902.2, Garage and accessory building receptacles, as follows:
- 34. E3902.2 Garage and accessory building receptacles. All 125-bolt, single phase, 15-or20- amp 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.
 - a. Exception: The receptacle adjacent to and used solely for the purpose of providing power for the garage door opener does not have be GFCI protected.
- 35. Amend Section E3902, Ground-fault and arc fault circuit-interrupter protection, as follows:
- 36. E3902.12 Arc-fault circuit-interrupter protection. All branch circuits that supply 120+volt, single-phase, 15-and 20-ampere bedroom circuits
- 37. Repeal Section E4002, Receptacles, subsection E4002.14, Tamper-resistant receptacles, in its entirety.
- 38. Sec. 36-1303. Adoption Of Appendices. Only the following appendices, listed among others in the 2018 International Residential Code, are adopted.

Appendix A. Sizing and Capacities of Gas Piping

Appendix B. Sizing of Venting Systems Serving Appliances Equipped with Draft Hoods, Category-I Appliances, and Appliances Listed for use with Type B Vents

Appendix C. Exit Terminals of Mechanical Draft and Direct-Vent Venting Systems

Appendix D. Recommended Procedure for Safety Inspection of an Existing Appliance Installation

Appendix E. Manufactured Housing used as Dwellings.

Appendix G. Piping Standards for Various Applications

Appendix I. Private Sewage Disposal

Appendix J. Existing Building and Structures

Appendix P. Sizing of Water Piping System

Article III Electrical Code

Section 500.030 Adoption Of The National Electric Code.(NEC) [Ord. No. 170213A § 2, 2-27-2017]

A certain document, one (1) copy of which is on file and open for public inspection in the office of the City Clerk of the City of Willard, Missouri, being marked and designated as the National Electric Code (NEC) 2017, be and is hereby adopted and known as the Electric Code of the City of Willard. For the purpose of establishing rules and regulations for the design, installation, alteration, repair, location, relocation, replacement, addition to, use or maintenance of electrical systems in the City of Willard; and each and all of the regulations, provisions, penalties, conditions and terms of said code are hereby referred to, adopted and made a part hereof, as if fully set out in this Chapter, with the additions, insertions, deletions and changes, if any, prescribed in Section 500.035 of this Chapter.

Section 500.035 Additions, Insertions And Changes. [Ord. No. 170213A § 2, 2-27-2017]

A. The National Electric Code (NEC)/2017 adopted by Section **500.030** is hereby amended by substituting the following Sections or portions of Sections for those Sections or portions of Sections with corresponding numbers of the National Electric Code (NEC)/2017, or where there is no corresponding Section in the code, the following Sections shall be enacted as additions to the code.

It shall be unlawful for any person to install, or permit the installation of, any electrical wiring, equipment, or apparatus within the corporate limits of the City of Willard, unless the same shall be installed to conform with the standards and provisions of the 2017 NEC, the latest approved edition of the Electrical Service Standards of City Utilities of Springfield, and all other applicable City codes and ordinances. In the event of a conflict between these documents the most stringent or restrictive shall govern, or an administrative interpretation may be made by the Director of Building Development Services to resolve such conflicts.

210.8 Ground-Fault Circuit-Interrupter Protection for Personnel

Dwelling Units. All 125-volt, single-phase, 15- or 20-ampere receptacles installed in locations specified in 210.8(A)(1) through (10) shall have ground-fault circuit-interrupter protection for personnel.

- 1. Garages and accessory buildings that have a floor located at or below grade level and are: not intended as habitable rooms; and, limited to storage areas, work areas, and areas of similar use
 - a. Exception to (2): A single receptacle installed solely for electrical supply of a garage door opener.

210.12 Arc-Fault Circuit-Interrupter Protection

Dwelling Units. All 120-volt, single phase, 15- and 20-ampere branch circuits supplying outlets or devices installed in dwelling unit bedrooms, shall be protected by any of the means described in 210.12(A)(1) through (6).

210.52 Dwelling Unit Receptacle Outlets.

Basements, Garages, and Accessory Buildings.

Basements. In each separate, unfinished portion of a basement, framed, interior walls for separate rooms constitute finished areas and, therefore, must have branch circuits as required by Article 210, and any required smoke detectors. All wiring must be protected from physical damage by the wall framing or the wall must be covered with sheetrock applied to at least one side of the wall.

230.11. Residential service upgrades and repairs.

In all structures used for residential purposes, a service upgrade or modification must include:

- 1. GFI receptacles in kitchen(s) and bathroom(s) if outlets are in existence at the time of the service upgrade.
- 2. Approved hard-wired, dual-powered, interconnected smoke alarms installed and located per the adopted building code;
- 3. A minimum of two (2) 20 amp grounded small appliance branch circuits in kitchens.
- 4. Carbon monoxide detectors installed according to R315.1 where the structure has an attached garage or fuel-fired appliances; and,
- 5. Corrections to all apparent hazards.

Damage repair. If a fire or other similar incident damages any part of the electrical system within a residential structure, the system, in addition to all damaged systems, must be completely repaired and:

- 1. All apparent hazards within the structure must be corrected.
- 2. Hard-wired, dual-powered, interconnected smoke detectors and carbon-monoxide detectors must be installed and located per the adopted building codes.
- 3. A total or partial upgrade of the electrical system may be required if, in the opinion of an electrical expert in the Department of Building Development Services, the condition of the existing electrical system constitutes a potential threat to the safety and welfare of current or future occupants.

230,70 General.

Location.

Readily Accessible Location. The service disconnecting means shall be installed at a readily accessible location either outside of a building or structure or inside nearest the point of entrance to the service conductors. The maximum length of conduit between the meter back and service disconnect shall not exceed 36 inches, unless otherwise authorized by the Department of Building Development Services.

230.72 Grouping of Disconnects.

General. The two to six disconnects as permitted in 230.71 shall be grouped. The term "grouped" as used in this sub-article is defined as being within two feet of each other, on the same wall, with no intervening obstructions exceeding eight inches in depth from the wall surface, unless otherwise authorized by the Department of Building Development Services prior to installation. Each disconnect shall be marked to indicate the load served.

Article IV International Plumbing Code

Section 500.040 Adoption Of International Plumbing Code.(IPC) [Ord. No. 170213A § 2, 2-27-2017]

A certain document, one (1) copy of which is on file and open for public inspection in the office of the City Clerk of the City of Willard, Missouri, being marked and designated as the International Plumbing Code 2018, including Appendices E and F, as published by the International Code Council, be and is hereby adopted as the Plumbing Code of the City of Willard for regulating the design, construction, quality of materials, erection, installation, alteration, repair, location, relocation, replacement, addition to, use or maintenance of plumbing systems in the City of Willard; and each and all of the regulations, provisions, penalties, conditions and terms of said code are hereby referred to, adopted and made a part hereof, as if fully set out in this Chapter, with the additions, insertions, deletions and changes, if any, prescribed in Section 500.045 of this Chapter.

Section 500.045 Adoptions, Insertions and Changes. [Ord. No. 170213A § 2, 2-27-2017]

The International Plumbing Code 2018 adopted by Section **500.040** is hereby amended by substituting the following Sections or portions of Sections for those Sections or portions of Sections with corresponding numbers of the International Plumbing Code 2018, or where there is no corresponding Section in the code, the following Sections shall be enacted as additions to the code.

Section 101.1 Insert: "City of Willard."

Delete Sections 103.1, 103.2 and 103.3 in their entirety and insert, in lieu thereof, the following statement: "See Chapter 1 of the International Building Code 2018"

106.6.3 "Fee Refunds" Delete the text in its entirety and insert the following statement: "See 109.6 of the International Building Code 2018."

Delete the text of Section 108.4 in its entirety and add a statement, in lieu thereof, which shall read: "See Section 500.150 of the Code of Ordinances of the City of Willard."

108.5 by deleting the last sentence of that Section and adding, in lieu thereof, the following: "Any person who shall continue any work on the system having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable for a fine as prescribed in Section 500.150 of the Code of Ordinances of the City of Willard."

305.4.1 Sewer depth. Building sewers that connect to private-sewage-disposal systems shall be installed a minimum of 18 inches below finished grade at the point of septic-tank connection. Building sewers shall be installed not less than 12 inches below grade.

312.1 Required tests. The permit holder shall make the applicable tests prescribed in Sections 312.2 through 312.10 to determine compliance with the provisions of this code. The permit holder shall give reasonable advance notice to the code official when the plumbing work is ready for tests. The code official, or the code official's duly authorized representative, may witness or require verification of these tests. The equipment, material, power, and labor necessary for the inspection and test shall be furnished by the permit holder and he or she shall be responsible for determining that the work will withstand the test pressure prescribed in the following tests. Plumbing-system piping shall be tested with either water or, for piping systems other than plastic, by air. After the plumbing fixtures have been set and their traps filled with water, the entire drainage system shall be submitted to final tests. The code official shall require the removal of any cleanouts, if necessary, to ascertain whether the pressure has reached all parts of the system.

Delete "Exceptions: 2 of Subsection 403.2, Separate facilities," in its entirety, and add the following: "2. Separate facilities shall not be required in structures or tenant spaces with a total occupant load, including both employees and customers, of forty-nine (49

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

Exceptions:

1. Except for mercantile uses, occupancies which do not serve food or beverages to be consumed within the structure or tenant space, do not require separate facilities when the total occupant load, including both employees and customers, does not exceed 49.

In Section 410.3 Substitution, add the following: "Exception: In all use groups except Use Group A, where the occupant load is less than forty-nine (49), a two- or five-gallon water dispenser or water cooler may be substituted for the required drinking fountain."

Section 504.7 Required pan.

Exceptions:

- 1. A pan will not be required if the floor is concrete and a floor drain is adjacent to the device or the floor is a slab-on-grade, concrete floor.2.
- 2. A pan will not be required on a water heater changeout if the pre-existing conditions did not contain a pan.

604.8 Water pressure-reducing valve or regulator. An approved water-pressure-reducing valve conforming to ASSE 1003 with strainer shall be installed to reduce the pressure in the building water distribution piping to 80 psi (552 kPa) static or less.

606.3 Access to valves. Ready access shall be provided to all required full-open valves and shutoff valves. 608.1 General. A potable water supply system shall be designed, installed, and maintained in such a manner so as to prevent contamination from non-potable liquids, solids or gases being introduced into the potable and public water supply through cross connections or any other piping connections to the system. Backflow preventer applications shall conform to Table 608.1, except as specifically stated in Sections 608.2 through 608.17.10, and Missouri Department of Natural Resources regulations for backflow prevention in effect at the time of installation; where requirements differ the requirement that provides the highest level of protection shall govern. Installation of a backflow preventer is required as a condition for new systems not governed by the residential code and for permitted modifications to an existing system not governed by the residential code where more than four drainage fixture units, as defined in Table 709.1, are installed; the drainage fixture unit valve for a pot sink or three compartment sinks shall be defined as three fixture units. This backflow preventer shall be installed as close as possible to the point where the potable water service enters the building or as approved by the water purveyor. No branch lines or taps will be allowed between the water meter and the backflow preventer. Backflow preventers shall be tested and tagged prior to final plumbing inspection. 608.17.4.2 Location. All required automatic fire sprinkler and standpipe system backflow preventers shall be located in accordance with the requirements of the water purveyor. Location of backflow preventers shall be such that ready access for service and testing is achieved.

608.18 Protection of individual water supplies. An individual water supply shall be located and constructed so as to be safeguarded against contamination in accordance with standards established by the Springfield-Greene County Health Department, the water purveyor, and/or the Missouri Department of Natural Resources, for all site requirements related to protection of individual, water-supply systems. The more restrictive provisions specified for health, safety, and welfare shall apply whenever a conflict exists.

802.1.7 Food utensils, dishes, pots-and-pans sinks. Sinks, in other than dwelling units, used for the washing, rinsing, or sanitizing of utensils, dishes, pots, or pans; or, service ware, used in the preparation, serving, or eating of food, shall discharge indirectly through an air gap or an air break to the drainage system. The drainage system includes the grease interceptor.

903.1 Roof extension. Open vent pipes that extend through a roof shall be terminated not less than 12 inches 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 7 feet (2134 mm) above the roof.

918.3 Where permitted. Individual, branch, and circuit vents shall be permitted to terminate with a connection to an individual or branch-type-air-admittance valve in accordance with Section 918.3.1 only with approval from the code official or the code official's duly authorized representative, prior to design or installation. Stack vents and vent stacks shall be permitted to terminate to stack-type-air-admittance valves in accordance with Section 918.3.2 only with approval from the code official or the code official's duly authorized representative prior to design or installation. The use of air-admittance valves shall be permitted only in the remodel of existing buildings and shall not be permitted in new structures and building additions, except for island fixtures, unless otherwise approved by the code official or the code official's duly authorized representative, prior to design or installation. Requests for approval shall be submitted separately in writing.

1003.3 Grease interceptors. Grease interceptors shall comply with the requirements of Sections 1003.3.1 through 1003.3.8 and the requirements and guidelines of the City of Springfield Fats, Oils, and Grease ("FOG") Management Plan, based on the anticipated conditions of use, and shall be subject to the approval of Clean Water Services.

1003.3.1 Grease interceptors and automatic grease removal devices required. A grease interceptor or an automatic, grease-removal device shall be required to receive the drainage from fixtures and equipment with grease-laden waste

located in food preparation areas, such as in restaurants, hotel kitchens, hospitals, school kitchens, bars, factory cafeterias, daycare centers, and clubs. Fixtures and equipment shall include: mop sinks; kitchen floor drains and sinks; culinary sinks; hand sinks; pot sinks; pre rinse sinks; soup kettles or similar devices; wok stations; floor drains or sinks into which kettles are drained; automatic hood wash units and dishwashers without pre rinse sinks. Grease interceptors and automatic grease removal devices shall receive waste only from fixtures and equipment that allow fats, oils, or grease to be discharged. Where the lack of space or other constraints prevent the installation or replacement of a grease interceptor, one or more grease interceptors shall be permitted to be installed on or above the floor and upstream of an existing grease interceptor.

1003.3.2 Food waste disposers restriction. A food-waste disposer shall discharge to a grease interceptor through a solids separator.

1003.3.3 Additives to grease interceptors. Dispensing systems that dispense interceptor performance additives to a grease interceptor shall not be installed. Systems that discharge emulsifiers, chemicals or enzymes to grease interceptors are prohibited.

1003.3.7 Gravity grease interceptors and gravity grease interceptors with fats, oils, and greases disposal systems. The required capacity of gravity grease interceptors and gravity grease interceptors with fats, oils, and greases disposal systems shall be determined by multiplying the peak drain flow into the interceptor in gallons per minute by a retention time of 30 minutes. Gravity grease interceptors shall be designed and tested in accordance with IAPMO/ANSI Z1001. Gravity grease interceptors with fats, oils, and greases disposal systems shall be designed and tested in accordance with ASME A112.14.6 and IAPMO/ANSI Z1001. Gravity grease interceptors and gravity grease interceptors with fats, oils, and greases disposal systems shall be installed in accordance with manufacturer's instructions. Where manufacturer's instructions are not provided, gravity grease interceptors and gravity grease interceptors with fats, oils, and greases disposal systems shall be installed in compliance with ASME A112.14.6 and IAPMO/ANSI ZIO0I. Concrete grease interceptors are prohibited.

1003.11 Sampling manhole. A sampling manhole shall be installed for all required interceptors in accordance with City of Willard Public Works standard details to monitor the entire building, or to monitor individual tenant space as determined by Clean Water Services.

Article V International Mechanical Code

Section 500.050 Adoption Of International Mechanical Code. (IMC) [Ord. No. 170213A § 2, 2-27-2017]

A certain document, one (1) copy of which is on file and open for public inspection in the office of the City Clerk of the City of Willard, Missouri, being marked and designated as the International Mechanical Code 2018, including Appendix A, as published by the International Code Council, be and is hereby adopted as the Mechanical Code of the City of Willard for regulating the design, construction, quality of materials, erection, installation, alteration, repair, location, relocation, replacement, addition to, use or maintenance of mechanical systems in the City of Willard; and each and all of the regulations, provisions, penalties, conditions and terms of said code are hereby referred to, adopted and made a part hereof, as if fully set out in this Chapter, with the additions, insertions, deletions and changes, if any, prescribed in Section 500.055 of this Chapter.

Section 500.055 Additions, Insertions And Changes. [Ord. No. 170213A § 2, 2-27-2017]

The International Mechanical Code 2018 adopted by Section 500.050 is hereby amended by substituting the following Sections or portions of Sections for those Sections or portions of Sections with corresponding numbers of the International Mechanical Code 2018 or where there is no corresponding Section in the code,

the following Sections shall be enacted as additions to the code.

Section 101.1 Insert: "City of Willard."

Delete Sections 103.1, 103.2 and 103.3 in their entirety and insert, in lieu thereof, the following statement: "See Chapter 1 of the International Building Code .2018

Section 106.5.3. Delete the text and add the sentence to read as follows: "See Section 109.6 of the International Building Code."

Delete the text of Section 108.4 in its entirety and add a new sentence which shall read as follows: "The penalties are set forth in Section 500.150 of the Code of Ordinances of the City of Willard."

Amend Section 108.5 by deleting the last sentence of that Section and adding, in lieu thereof, the following: "Any person who shall continue any work on the system having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable for a fine as prescribed in Section 500.150 of the Code of Ordinances of the City of Willard."

307.2.1 Condensate disposal. Condensate from all cooling coils and evaporators shall be conveyed from the drain-pan outlet to an approved place of disposal. Such piping shall maintain a minimum horizontal slope in the direction of discharge of not less than one-eighth unit vertical in 12 units horizontal (1 percent slope). Condensate shall not discharge into a street, alley, crawl space, or other areas to cause a nuisance.

502.14 Motor vehicle operation.

Exception: 4. If it can be shown, subject to the approval of the code official having jurisdiction, that the area of motor vehicle operation in an existing building was previously used as a motor vehicle operation area, a properly listed and labeled exhaust hose not greater than eight (8) feet in length may be used, provided it is connected to the vehicle while in operation and securely attached to a permanent opening through the exterior surface of the building.

506.3.2.5 Grease duct test. Prior to the use or concealment of any portion of a grease-duct system, a leakage test shall be performed. Ducts shall be considered to be concealed where installed in shafts or covered by coating or wraps that prevent the ductwork from being visually inspected on all sides. The permit holder shall be responsible to provide the necessary equipment and perform the grease-duct-leakage test. The grease duct shall be tested by drawing a vacuum on or pressurizing the installed, in place, grease duct to a minimum of 4 inches water column (995 pa, 0.144 psi). The test shall be witnessed by the code official or the code official's duly authorized agent. The grease duct will pass inspection if the pressure or vacuum applied holds for 15 minutes with zero leakage. Measurement shall be made with a digital manometer or pressure gauge with an accuracy of 0.5 percent. The measurement device shall be connected to the test cover of the hood and duct connection and shall be readily accessible for reading.

509.2 Domestic Uses. Cooking appliances required by section 505.6 to have a domestic, cooking-exhaust system shall be provided with a UL 300 A listed fire suppression system.

Article VI International Fuel Gas Code

Section 500.060 Adoption Of International Fuel Gas Code. (IFGC) [Ord. No. 170213A § 2, 2-27-2017]

A certain document, one (1) copy of which is on file and open for public inspection in the office of the City Clerk of the City of Willard, Missouri, being marked and designated as the International Fuel Gas Code 2018 including Appendices A, B, C and D, as published by the International Code Council, be and is hereby adopted as the Fuel Gas Code of the City of Willard for the control of building and structures as herein provided; and each and all of the regulations, provisions, penalties, conditions and terms of said code are hereby referred to, adopted and made a part hereof, as if fully set out in this Chapter, with the additions, insertions, deletions and changes, if any, prescribed in Section 500.065 of this Chapter.

Section 500.065 Additions, Insertions And Changes. [Ord. No. 170213A § 2, 2-27-2017]

- A. The International Fuel Gas Code 2018 adopted by Section 500.060 is hereby amended by substituting the following Sections or portions of Sections for those Sections or portions of Sections with corresponding numbers of the International Fuel Gas Code/2012, or where there is no corresponding Section in the code, the following Sections shall be enacted as additions to the code.
- Section 108.4, delete the text of this Section in its entirety and add one (1) new sentence to read as follows: "See Section 500.150 of the Code of Ordinances of the City of Willard."
- Section 108.5, delete the text of this Section in its entirety and add one (1) new sentence to read as follows: "See Section 500.150 of the Code of Ordinances of the City of Willard."

Article VII International Fire Code

Section 500.070 Adoption Of International Fire Code.(IFC) [Ord. No. 170213A § 2, 2-27-2017]

A certain document, one (1) copy of which is on file and open for public inspection in the office of the City Clerk of the City of Willard, Missouri, being marked and designated as the International Fire Code 2018, including Appendices B, C, D, E, F and G, as published by the International Code Council, be and is hereby adopted as the Fire Code of the City of Willard for the control of buildings, structures and premises as herein provided; and each and all of the regulations, provisions, penalties, conditions and terms of said code are hereby referred to, adopted and made a part hereof, as if fully set out in this Chapter, with the additions, insertions, deletions and changes, if any, prescribed in Section 500.075 of this Chapter.

Section 500.075 Additions, Insertions And Changes. [Ord. No. 170213A § 2, 2-27-2017]

- A. The International Fire Code 2018 adopted by Section 500.070 is hereby amended by substituting the following Sections or portions of Sections for those Sections or portions of Sections with corresponding numbers of the International Fire Code 2018, or where there is no corresponding Section in the code, the following Sections shall be enacted as additions to the code.
- 1. Section 101.1 Insert: "City of Willard."
- 2. Delete in its entirety Sections 103.2 and 103.3. Renumber Sections 103.4 and 103.4.1 to 103.2 and 103.2.1, respectively.
- 3. Delete Section 109.4 in its entirety and add, in lieu thereof, the following: "Section 109.4 Violation Penalties. Persons who shall be found guilty of violating a provision of this code or failing to comply with any of the requirements thereof or who erect, install, alter or repair any structure in violation of the approved construction documents or directive of the Code Official, or of a permit or certificate issued under the provisions of this code, shall be punished as set forth in Section 500.150 of the Code of Ordinances of the City of Willard."
- 4. Section 111.4 "Failure to Comply" Delete the text in its entirety and add, in lieu thereof, the following: "Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be punished in accordance with Section 500.150 of the Code of Ordinances of the City of Willard."
- 5. Section 505.1 Add four (4) new sentences to the end of the paragraph which shall read as follows:

- "Address number size shall be increased by a minimum of two (2) inches for each fifty (50) feet the building is set back from the street, highway or road. If the building is not visible from the street, highway or road, the address shall be posted at the intersection of the driveway and the main road by separate signage. If separate signage is used, numbers shall be installed so there is not less than three (3) feet nor more than five (5) feet from ground level to the numbers. If the property has a rear access drive or road, the address shall be posted on the rear of the building or on the roadway."
- 6. **506.1.1 Locks.** Amended to read as follows: An approved lock shall be installed on gates or similar barriers and a Knox Box will be required.
- 7. **912.4.1 Locking Fire Department Connection Caps.** Delete in its entirety and insert as follows. All water based fire protection systems shall be provided with locking caps approved by the Fire Department on the Fire Department connection.
- 8. 5704.2.9.6.1 Locations Where Above Ground Tanks Are Prohibited. Insert: as determined by the Fire Official.
- 9. 5706.2.4.4 Locations Where Above Ground Tanks Are Prohibited. Insert: as determined by the Fire Official.
- 10. Appendix B. Fire Flow Requirements For Buildings.
- 11. Appendix C. Fire Hydrant Locations And Distribution.
- 12. Appendix D. Fire Apparatus Access Roads.
- 13. Appendix E. Hazard Categories.
- 14. Appendix F. Hazard Ranking.

Article VIII

International Energy Conservation Code (IECC)

Section 500.080 Adoption of the 2012 International Energy Conservation Code (IECC)

A certain document, one (1) copy of which is on file and open for public inspection in the office of the City Clerk of the City of Willard, Missouri, being marked and designated as the International Energy Conservation Code, as published by the International Code Council, be and is hereby adopted as the Energy Conservation Code of the City of Willard for the control of buildings and structures as herein provided; and each and all of the regulations, provisions, penalties, conditions and terms of said code are hereby referred to, adopted and made a part hereof, as if fully set out in this Chapter, with the additions, insertions, deletions and changes, if any, prescribed in Section 500.095 of this Chapter.

Article IX Existing Buildings Code

Section 500.090 Adoption Of The International Existing Buildings Code.(IEBC) [Ord. No. 170213A § 2, 2-27-2017]

A certain document, one (1) copy of which is on file and open for public inspection in the office of the City Clerk of the City of Willard, Missouri, being marked and designated as the International Existing Buildings Code; 2018 including Appendices A and B, as published by the International Code Council, be and is hereby adopted as the Existing Buildings Code 2018 of the City of Willard for the control of buildings and structures as herein provided; and each and all of the regulations, provisions, penalties, conditions and terms of said code are hereby referred to, adopted and made a part hereof, as if fully set out in this Chapter, with the additions, insertions, deletions and changes, if any, prescribed in Section 500.095 of this Chapter.

Section 500.095 Additions, Insertions And Changes. [Ord. No. 170213A § 2, 2-27-2017]

- A. The International Existing Buildings Code 2018 adopted by Section 500.090 is hereby amended by substituting the following Sections or portions of Sections for those Sections or portions of Sections with corresponding numbers of the International Existing Buildings Code,2018 or where there is no corresponding Section in the code, the following Sections shall be enacted as additions to the code.
- 1. Section 101.1 Insert: "City of Willard."
- 2. Section 1301.2 Insert: "as adopted by the City of Willard."
- 3. **108.2 Schedule Of Permit Fees.** Insert: Section 500.110.
- 4. **707.1 Minimum Requirements.** 2012 International Energy Code.
- 5. **810.1 Minimum Requirements.** 2012 International Energy Code.
- 6. **907.1 Minimum Requirements.** 2012 International Energy Code.

Article X International Property Maintenance Code

Section 500.100 Adoption Of International Property Maintenance Code.(IPMC) [Ord. No. 170213A § 2, 2-27-2017]

A certain document, one (1) copy of which is on file and open for public inspection in the office of the City Clerk of the City of Willard, Missouri, being marked and designated as the International Property Maintenance Code,2018 as published by the International Code Council, be and is hereby adopted as the Property Maintenance Code of the City of Willard for the control of buildings and structures as herein provided; and each and all of the regulations, provisions, penalties, conditions and terms of said code are hereby referred to, adopted and made a part hereof, as if fully set out in this Chapter, with the additions, insertions, deletions and changes, if any, prescribed in Section 500.105 of this Chapter.

Section 500.105 Additions, Insertions And Changes. [Ord. No. 170213A § 2, 2-27-2017]

- A. The International Property Maintenance Code 2018 adopted by Section 500.100 is hereby amended by substituting the following Sections or portions of Sections for those Sections or portions of Sections with corresponding numbers of the International Property Maintenance Code, 2018 or where there is no corresponding Section in the code, the following Sections shall be enacted as additions to the code.
 - 1. Section 101.1 Insert: "The City of Willard."
 - Section 106.4 "Violation Penalties" Add a new last sentence which shall read as follows: "See Section 500.150 of the Code of Ordinances of the City of Willard."
 - 3. Section 202 Definitions
 - 4. VACANT STRUCTURE. A structure not continuously and lawfully occupied by any person or persons.
 - 301.3 Vacant structures and land. All vacant structures and premises thereof or vacant land shall be maintained in a clean, safe, secure, and sanitary condition as provided herein so as not to cause or contribute to, area blight or adversely affect the public health or safety.
 - 6. Section 301.4 Discharge of solids, liquids, or gases. No solid, liquid, or gas may be discharged onto or from

- property in a manner that creates a nuisance on the property of origin or adjacent public or private property.
- 7. Subsections 302.4 Weeds and 302.8 Motor Vehicles are deleted in their entirety.
- 8. Exterior surfaces, including but not limited to, doors, door and window frames, cornices, porches, trim, balconies, decks and fences, shall be maintained in good condition. Exterior wood surfaces, other than decay-resistant woods, shall be protected from the elements and decay by painting or other protective covering or treatment. Siding and masonry joints, as well as those between the building envelope and the perimeter of windows, doors, and skylights, shall be maintained weather resistant and watertight. Metal surfaces subject to rust or corrosion shall be coated to inhibit such rust and corrosion, and surfaces with rust or corrosion shall be stabilized and coated to inhibit future rust and corrosion. Surfaces designed for stabilization by oxidation are exempt from this requirement.
- 9. Section 303.14 Insert: "March 15th" and "September 15th."

Section 304.2.1 Exterior finish.

- 10. All exterior finishes, including cladding and siding, must be well maintained. There shall be no exposed substrate, building wrap, or insulation.
- 11. Section 304.3 Premises identification is deleted in its entirety.
- 12. Section 304.14 Insect screens. During the period from April 1 to November 1, each year, every door, window, and other outside opening required for ventilation of habitable rooms, food preparation, food service areas or any areas where products to be included or utilized in food for human consumption are processed, manufactured, packaged or stored shall be supplied with approved, tightly-fitting screens of minimum 16 mesh per inch (16 mesh per 25mm), and every screen door for insect control shall have a self-closing device in good working condition.

Section 305 Interior Structure

13. 305.3 Interior surfaces. Interior surfaces, including Windows and doors, shall be maintained in a functional, clean, and sanitary condition. Peeling, chipping, flaking or abraded paint shall be repaired, removed or covered. Cracked or loose plaster, decayed wood, and other defective surface conditions shall be corrected.

Section 306 Component Serviceability

- 14. 306.1.2 Use of Cellar or Basement as Habitable Room.
- 15. 1. No cellar or basement space shall be used as a habitable room and no basement space may be used as a dwelling unit unless:
- 16. 1.1 The floor and walls are impervious to leakage of underground and surface runoff water and are fully insulated against moisture intrusion and dampness.
- 17. 1.2 The total window area in each room is equal to at least the minimum window area size as required in Section 402.
- 18. 1.3 Such required minimum window area is located entirely above the grade of the ground adjoining such window area; and
- 19. 1.4 The total operable-window area in each room is equal to at least the minimum as required under Section 403, except where there is supplied some other device affording adequate ventilation, which is approved by the director of the Department of Building Development Services in writing.
- 20. 2. Notwithstanding the provisions of this section, any basement or cellar space may be used for living, eating, cooking, or sleeping if, for each such use, there are other facilities complying with this article available within the same dwelling for the occupants thereof. The intent of this subsection is to allow any basement or cellar space to be used as a habitable room if it is supplemental to, or in addition to, a dwelling unit or habitable room complying with this article.
- 21. Section 308.2.1 Rubbish storage facilities. The owner of every occupied premises shall supply approved covered containers for rubbish and the owner of the premises shall be responsible for the removal of rubbish and garbage. Rubbish and garbage shall be removed from the premises at least every fourteen days.

Section 602 Heating Facilities

- 22. Section 602.3 Heat supply. Every owner and operator of any building who rents, leases, or lets one or more dwelling units or sleeping units on terms, either expressed or implied, shall furnish a heat source permitted by City Code to the occupants thereof during the period from September 15th to March 15th each year capable of maintaining a minimum temperature of 68 degrees F (20°C) in all habitable rooms, bathrooms, and toilet rooms.
- 23. Section 602.4 Insert: "September 15th" and "March 15th."
- 24. Section 606.1 "General" Add a new sentence to the end of the paragraph which shall read as follows: "All elevators shall be inspected and approved by the State Fire Marshal's Elevator Inspectors on an annual basis."