AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MCKINNEY. TEXAS, AMENDING THE CODE OF ORDINANCES OF THE CITY OF MCKINNEY, TEXAS, THROUGH THE AMENDMENT OF CHAPTER 122, "CONSTRUCTION REGULATIONS," BY AMENDING ARTICLE III, "ELECTRICAL INSTALLATIONS," THROUGH THE AMENDMENT OF **DIVISION 3, "ELECTRICAL CODE," BY AMENDING SECTIONS 122-128** AND 122-129 TITLED "NATIONAL ELECTRICAL CODE ADOPTED" AND "AMENDMENTS TO ELECTRICAL CODE," RESPECTIVELY, BY AMENDING SECTIONS 122-131, 122-132, AND 122-133 TITLED "RIGHT OF ENTRY," "RECORDS; REPORTS" AND "INTERFERENCE WITH INSPECTOR," RESPECTIVELY, ALL OF WHICH AMENDMENTS AND ADDITIONS ARE FOR THE PURPOSE OF ADOPTING THE 2020 EDITION OF THE NATIONAL ELECTRICAL CODE AND BY THE ADOPTION OF LOCAL AMENDMENTS TO THE NATIONAL ELECTRICAL CODE INCLUDING, BUT NOT LIMITED TO, CERTAIN AMENDMENTS RECOMMENDED BY THE NORTH CENTRAL TEXAS GOVERNMENTS, COUNCIL OF AND PROVIDING FOR ENFORCEMENT; REPEALING ALL CONFLICTING ORDINANCES; PROVIDING A SAVINGS CLAUSE; PROVIDING A SEVERABILITY CLAUSE; PROVIDING FOR A PENALTY; AND PROVIDING AN EFFECTIVE DATE

- WHEREAS, the City of McKinney, Texas (the "City") is a Home Rule City possessing the full power of local self-government pursuant to Article 11, Section 5 of the Texas Constitution, Section 51.072 of the Texas Local Government Code, and the City's Home Rule Charter; and
- WHEREAS, the City Council of the City of McKinney, Texas ("City Council"), adopted Ordinance No. 2018-01-001 on January 2, 2018, which adopted the 2017 edition of the *National Electrical Code* and amendments to said code, which is set forth and codified in Chapter 122 of the Code of Ordinances of the City of McKinney ("City Code"); and
- WHEREAS, the National Electrical Code, or NFPA 70, is a United States standard for the safe installation of electrical wiring and equipment published by the National Fire Protection Association (NFPA) as part of the National Fire Codes series; and
- WHEREAS, the 2020 edition of the *National Electrical Code* has been released by the National Fire Protection Association; and
- WHEREAS, a committee of building code professionals works through the North Central Texas Council of Governments ("NCTCOG") to recommend local amendments to the *National Electrical Code* specific to the needs of North Central Texas, and the City of McKinney has consistently adopted these recommended amendments, with some minor modifications, in the past so that most municipalities in the region use the same or similar building code standards; and
- WHEREAS, the adoption of the 2020 edition of the *National Electrical Code*, including the local amendments, will provide the most current life safety applications with respect to construction, occupancy, use and maintenance of buildings and structures in the City of McKinney; and
- WHEREAS, the City Council of the City of McKinney, Texas, deems it to be in the best interest of the citizens of the City of McKinney to update its building code standards and adopt the 2020 Edition of the National Electrical Code, as amended, as the minimum standard for the continued construction, occupancy, use and maintenance of buildings and structures within the City's corporate limits and extraterritorial as provided by Section 122-4 of the Code of Ordinances, City of McKinney, Texas ("McKinney Code").

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MCKINNEY, TEXAS, THAT:

- Section 1. All of the above premises are found to be true and correct legislative determinations and are incorporated into the body of this Ordinance as if copied in their entirety.
- Section 2. From and after the effective date of this Ordinance, Article III, "Electrical Installations," of Chapter 122 of the McKinney Code is hereby amended by deleting Section 122-128, "*National Electrical Code* Adopted," and Section 122-129, "Amendments to Electrical Code," in their entirety and replacing said sections with a new Section 122-128, titled "*National Electrical Code* Adopted," and a new Section 122-129, titled "Amendments to Electrical Code," to read as follows:

"Sec. 122-128. - National Electrical Code adopted.

The City Council hereby adopts the 2020 edition of the *National Electrical Code*. Copies of the Code, and the amendments thereto, as referenced in this chapter, are on file in the office of the City Secretary for permanent record and inspection. The Chief Building Official, or their authorized representative, is hereby authorized and directed to enforce all provisions of the *National Electrical Code*, as adopted herein and as amended.

Sec. 122-129. - Amendments to Electrical code.

The City Council hereby adopts the Recommended Amendments to the 2020 Edition of the *National Electrical Code* prepared by the North Central Texas Council of Governments, dated September 2020, attached hereto as Attachment A (the "NEC Amendments")."

Section 3. From and after the effective date of this Ordinance, Article II, "Building Codes," of Chapter 122 of the McKinney Code is hereby amended by deleting Section 122-131 titled "*Right of Entry*," Section 122-132 titled "Records; reports," and Section 122-133 titled "Interference with Inspector" in their entirety and replacing said sections with a new Section 122-131 titled "Right of Entry," Section 122-132 titled "Records; reports," and Section 122-133 titled "Interference with Inspector" to read as follows:

"Sec. 122-131. - Right of entry.

The electrical inspector, or competent assistant appointed by them, shall have the right, during reasonable hours, to enter any building, manhole or subway in the discharge of their official duties, or for the purpose of making any tests of the electrical apparatus or appliances therein contained, and for that purpose they shall be given prompt access to all buildings, private or public, and to all manholes and subways on application to the company or individual owning or in charge or control of same.

"Sec. 122-132. - Records; reports.

The electrical inspector shall keep a full and complete record of all work done, permits issued, examinations made or other official work performed as required by this article.

Sec. 122-133. - Interference with inspector.

No person or agent thereof shall interfere with the electrical inspector or any person or persons lawfully deputized by them to assist as provided in this division, while in performance of duty, and each such interference shall be deemed to constitute a separate offense within the intent and meaning of this article."

- Section 4. Except as provided in this Ordinance, all ordinances, orders or resolutions heretofore passed and adopted by the City Council of the City of McKinney, Texas, are hereby repealed to the extent that said ordinances, orders or resolutions, or parts thereof, are in conflict herewith.
- Section 5. If any section, subsection, paragraph, sentence, clause, phrase or word of this Ordinance, or the application thereof to any person or circumstance, shall to any extent be held invalid, void or unconstitutional by a court of competent jurisdiction, such holding shall not affect the validity of the remaining portions of this Ordinance, and the City Council hereby declares that it would have passed such remaining portions of this Ordinance despite such invalidity, which remaining portions shall remain in full force and effect.
- Section 6. Any person, firm, partnership, corporation or association violating any provision of this Ordinance or of any code adopted herein shall be deemed guilty of a misdemeanor and, upon conviction thereof, shall be fined in the sum of not more than \$2,000.00, and each day such violation continues shall constitute a separate and distinct violation.
- Section 7. This Ordinance shall take effect and be in full force from and after its passage and publication, as provided by the Revised Civil Statutes of the State of Texas and the Home Rule Charter of the City of McKinney, Texas.

DULY PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF MCKINNEY, TEXAS, ON THIS 1st DAY OF NOVEMBER, 2022.

GEORGE C. FULLER Mayor

CORRECTLY ENROLLED:

EMPRESS DRANE City Secretary

DATE: _____

APPROVED AS TO FORM:

MARK S. HOUSER City Attorney

Attachment A



Recommended Amendments to the 2020 National Electrical Code North Central Texas Council of Governments

The following articles, paragraphs, and sentences of the 2020 National Electrical Code (NEC) are hereby amended as follows: Standard type is text from the NEC. Highlighted with gray shading is text inserted. Lined through type is deleted text from NEC. A double asterisk (**) at the beginning of an article identifies an amendment carried over from the 2017 edition of the code and a triple asterisk (***) identifies a new or revised amendment with the 2020 code.

**Article 100; add the following to definitions:

Engineering Supervision. Supervision by a Qualified State of Texas Licensed Professional Engineer engaged primarily in the design or maintenance of electrical installations.

(REASON FOR CHANGE: To better define the qualifications for engineering supervision. This term is used twenty-four times in the 2017 National Electrical Code.)

**Article 110.2; change the following to read as follows:

110.2 Approval. The conductors and equipment required or permitted by this *Code* shall be acceptable only if approved. Approval of equipment may be evident by listing and labeling of equipment by a Nationally Recognized Testing Lab (NRTL) with a certification mark of that laboratory or a qualified third party inspection agency or a field evaluation by a Field Evaluation Body accredited by either the International Code Council International Accreditation Service AC354 or ANSI National Accreditation Board programs and approved by the AHJ.

Exception: Unlisted equipment that is relocated to another location within a jurisdiction or is field modified is subject to the approval by the AHJ. This approval may be by a field evaluation by a NRTL or qualified third-party inspection agency or a field evaluation by a Field Evaluation Body accredited by either the ICC IAS AC354 or ANAB programs and approved by the AHJ Manufacturer's self-certification of any equipment shall not be used as a basis for approval by the AHJ.

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Informational Note No. 1: See 90.7, Examination of Equipment for Safety, and 110.3, Examination, Identification, Installation, and Use of Equipment. See definitions of *Approved*, *Identified*, *Labeled*, and *Listed*.

Informational Note No. 2: Manufacturer's self-certification of equipment may not necessarily comply with U.S. product safety standards as certified by an NRTL.

Informational Note No. 3: National Fire Protection Association (NFPA) 790 and 791 provide an example of an approved method for qualifying a third-party inspection agency.

(REASON FOR CHANGE: To add clarity and provide more positive options for enforcement and approval of unlisted equipment.)

***Article 400.8 Field Identification Required: Change the following to read as follows

408.4 Field Identification Required.

(A) Circuit Directory or Circuit Identification.

Every circuit and circuit modification shall be legibly identified as to its clear, evident, and specific purpose or use. The identification shall include an approved degree of detail that allows each circuit to be distinguished from all others. Spare positions that contain unused overcurrent devices or switches shall be described accordingly. The identification shall be included in a circuit directory that is located on the face or inside of or in an approved location adjacent and *permanently affixed* the panel door in the case of a panelboard and at each switch or circuit breaker in a switchboard or switchgear. No circuit shall be described in a manner that depends on transient conditions of occupancy.

(REASON FOR CHANGE: To add clarity and provide more positive options for enforcement and approval)

***Article 410.118: Change the following to read as follows

410.118 Access to other boxes.

Luminaires recessed in the ceilings, floors, or walls shall not be used to access outlet, pull, or junction boxes or conduit bodies, unless the box or conduit body is an integral part of the listed luminaire.

Exception: removable luminaires with a minimum measurement of 22 in. X 22 in. shall be permitted to be used as access to outlet, pull, junction boxes or conduit bodies.

REASON FOR CHANGE: To add clarity and provide more positive options for enforcement and approval. This will allow access to boxes not integral with the luminaire. This measurement aligns with the limited access above a lay-in ceiling measurement in 110.26(A)(4).

***Article 422.31 B: Change the following to read as follows

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422.31 B Appliances Rated over 300 Volt-Amperes

(B) Appliances Rated over 300 Volt-Amperes. For permanently connected appliances rated over 300 volt-amperes, the branch-circuit switch or circuit breaker shall be permitted to serve as the disconnecting means where the switch or circuit breaker is within sight from and is readily accessible to the appliance it serves or is capable of being locked in the open position in accordance with 110.25 and is readily accessible to the appliance it serves.

Informational Note No. 1: For appliances employing unit switches, see 422.34.

Informational Note No 2: The following means of access are considered to constitute readily accessible for this code change when conforming to the additional access requirements of the I Codes:

- (1) (2) A permanent stair.
- A pull-down stair with a minimum 300 lb. (136 kg) capacity.
- (3) An access door from an upper floor level.

REASON FOR CHANGE: To add clarity and provide more positive options for enforcement and approval)

**Article 500.8 (A) (3); change to read as follows:

500.8 Equipment.

Articles 500 through 504 require equipment construction and installation that ensure safe performance under conditions of proper use and maintenance.

Informational Note No. 1: It is important that inspection authorities and users exercise more than ordinary care with regard to installation and maintenance.

Informational Note No. 2: Since there is no consistent relationship between explosion properties and ignition temperature, the two are independent requirements.

Informational Note No. 3: Low ambient conditions require special consideration. Explosion proof or dust-ignition proof equipment may not be suitable for use at temperatures lower than -25°C (-13°F) unless they are identified for low-temperature service. However, at low ambient temperatures, flammable concentrations of vapors may not exist in a location classified as Class I. Division 1 at normal ambient temperature.

(A) Suitability. Suitability of identified equipment shall be determined by one of the following:

- Equipment listing or labeling: (1)
- (2) Evidence of equipment evaluation from a qualified testing laboratory or inspection agency concerned with product evaluation; or,
- Evidence acceptable to the authority having jurisdiction such as a manufacturer's self-(3) evaluation or an owner's engineering judgment. an engineering judgment signed and sealed by a qualified Registered licensed Professional Engineer in the State of Texas.

Informational Note: Additional documentation for equipment may include certificates demonstrating compliance with applicable equipment standards, indicating special conditions of use, and other pertinent information.

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(REASON FOR CHANGE: Carry over from previous amendment with change to better define the qualifications for an engineering judgment.)

**Article 505.7 (A) changed to read as follows:

505.7 Special Precaution.

Article 505 requires equipment construction and installation that ensures safe performance under conditions of proper use and maintenance.

Informational Note No. 1: It is important that inspection authorities and users exercise more than ordinary care with regard to the installation and maintenance of electrical equipment in hazardous (classified) locations.

Informational Note No. 2: Low ambient conditions require special consideration. Electrical equipment depending on the protection techniques described by 505.8(A) may not be suitable for use at temperatures lower than -20°C (-4°F) unless they are identified for use at lower temperatures. However, at low ambient temperatures, flammable concentrations of vapors may not exist in a location classified Class I, Zones 0, 1, or 2 at normal ambient temperature.

(A) Implementation of Zone Classification System. Classification of areas, engineering and design, selection of equipment and wiring methods, installation, and inspection shall be performed by a qualified persons Registered licensed Professional Engineer in the State of Texas.

(REASON FOR CHANGE: Carry over from previous amendment with change to better define the qualifications for an engineering judgment.)

***Article 695.6 A 1: Change the following to read as follows

695.6 (A) Supply Conductors.

(1) Services and On-Site Power Production Facilities.

Service conductors and conductors supplied by on-site power production facilities shall be physically routed outside a building(s) and shall be installed as service-entrance conductors in accordance with 230.6, 230.9, and Parts III and IV of Article 230. Where supply conductors cannot be physically routed outside of buildings, the conductors shall be permitted to be routed through the building(s) where installed in accordance with 230.6(1) or (2).

Exception: The supply conductors within the fire pump room shall not be required to meet 230<u>.6</u> (1) or (2)

(REASON FOR CHANGE: To add clarity and provide more positive options for enforcement and approval. All Fire Pump rooms are not Fire Rated as on all 4 sides. There are Fault Currents that could exceed 150,000-190,000 amps and protection of these Service Conductors is essential and conflict with other codes specifically 230.70(A)(1).)

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***Article 71.15 A: Change the following to read as follows

710.15 General

710.15(A) Supply Output.

Power supply to premises wiring systems fed by stand-alone or isolated microgrid power sources shall be permitted to have less capacity than the calculated load. The capacity of the sum of all sources of the stand alone supply shall be equal to or greater than the load posed by the largest single utilization equipment connected to the system. Calculated general lighting loads shall not be considered as a single load have adequate capacity to meet the calculated load in accordance with Article 220.

Informational Note: For general-use loads the system capacity can be calculated using the sum of the capacity of the firm sources, such as generators and ESS inverters. For specialty loads intended to be powered directly from a variable source, the capacity can be calculated using the sum of the variable sources, such as PV or wind inverters, or the combined capacity of both firm and variable sources.

(REASON FOR CHANGE: To add clarity and provide more positive options for enforcement and approval. Unless amended, standby systems would not be required to meet any load demanded by their standby definitions.)

END

North Central Texas Council of Governments 2020 NEC Regional Amendments NCTCOG Executive Board approval: November 19, 2020