

## **ORDINANCE NO. O20-16**

**AN ORDINANCE OF THE TOWN OF ADDISON, TEXAS, AMENDING CHAPTER 18 “BUILDINGS AND BUILDING REGULATIONS” TO ADD A NEW ARTICLE V “ELECTRICAL CODE” ADOPTING THE 2017 EDITION OF THE NATIONAL ELECTRIC CODE WITH AMENDMENTS; PROVIDING A PENALTY OF NOT TO LESS THAN FIVE HUNDRED AND NO/100 DOLLARS (\$500.00) OR MORE THAN ONE THOUSAND AND NO/100 DOLLARS (\$1,000.00) FOR EACH OFFENSE AND A SEPARATE OFFENSE SHALL BE DEEMED COMMITTED EACH DAY DURING OR ON WHICH A VIOLATION OCCURS OR CONTINUES; PROVIDING FOR SAVINGS, SEVERABILITY AND AN EFFECTIVE DATE.**

**WHEREAS**, the City Council of the Town of Addison, Texas has investigated and determined that it in the best interest of the health, safety and welfare of the citizens of the Town of Addison, Texas to adopt the 2017 Edition of the National Electric Code, save and except the deletions and amendments set forth below.

**NOW, THEREFORE, BE IT ORDAINED BY THE TOWN COUNCIL OF THE TOWN OF ADDISON, TEXAS:**

**SECTION 1.** The recitals set forth above are true and correct and are incorporated as if fully set forth herein.

**SECTION 2.** Addison Code of Ordinances, Chapter 18 “Buildings and Building Regulations” is hereby amended to add a new Article V “Electrical Code” which shall read in its entirety as follows:

### **ARTICLE V. - ELECTRICAL CODE**

#### **Division I - Adopted.**

##### **Sec. 18-58. - Adopted.**

For the purpose of providing minimum standards to safeguard life or limb, health, property and public welfare by regulating and controlling the design, construction, quality of all buildings and structures within the city and certain equipment specifically regulated herein, the 2017 edition of the National Electrical Code, as published by the National Fire Protection Association, a copy of which is on file in the office of the City Secretary, is hereby adopted and designated as the Electrical Code of the Town to the same extent as if such code were copied verbatim in this Article. The title of this Article shall be the “Electrical Code of the Town of Addison,” and it may be cited as such.

#### **Division II - Administrative Provisions.**

##### **Sec. 18-59. – Administrative Provisions.**

Appendix K of the International Building Code, 2018 Edition as adopted by the Town of Addison is hereby amended in this Article to serve as administrative provisions for this Article, the Electrical Code.

## SECTION K101 GENERAL

**K101.1 Purpose.** A purpose of this code is to establish minimum requirements to safeguard public health, safety and general welfare by regulating and controlling the design, construction, installation, quality of materials, location, operation and maintenance or use of electrical systems and equipment.

**K101.2 Scope.** This code applies to the design, construction, installation, *alteration*, repairs, relocation, replacement, *addition* to, use or maintenance of electrical systems and equipment.

## SECTION K102 APPLICABILITY

**K102.1 General.** The provisions of this code apply to all matters affecting or relating to structures and premises, as set forth in Section K101.

**K102.2 Existing installations.** Except as otherwise provided for in this chapter, a provision in this code shall not require the removal, *alteration* or abandonment of, or prevent the continued utilization and maintenance of, existing electrical systems and equipment lawfully in existence at the time of the adoption of this code.

**K102.3 Maintenance.** Electrical systems, equipment, materials and appurtenances, both existing and new, and parts thereof shall be maintained in proper operating condition in accordance with the original design and in a safe, hazard-free condition. Devices or safeguards that are required by this code shall be maintained in compliance with the code edition under which installed. The *owner* or the *owner's* authorized agent shall be responsible for the maintenance of the electrical systems and equipment. To determine compliance with this provision, the *building official* shall have the authority to require that the electrical systems and equipment be reinspected.

**K102.4 Additions, alterations and repairs.** *Additions, alterations, renovations and repairs* to electrical systems and equipment shall conform to that required for new electrical systems and equipment without requiring that the existing electrical systems or equipment comply with all of the requirements of this code. *Additions, alterations and repairs* shall not cause existing electrical systems or equipment to become unsafe, hazardous or overloaded. Minor *additions, alterations, renovations and repairs* to existing electrical systems and equipment shall meet the provisions for new construction, except where such work is performed in the same manner and arrangement as was in the existing system, is not hazardous and is *approved*.

**K102.5 Subjects not regulated by this code.** Where no applicable standards or requirements are set forth in this code, or are contained within other laws, codes, regulations, ordinances or bylaws adopted by the jurisdiction, compliance with applicable standards of nationally recognized standards as are *approved* shall be deemed as prima facie evidence of compliance with the intent of this code. Nothing herein shall derogate from the authority of the *building official* to determine compliance with codes or standards for those activities or installations within the building official's jurisdiction or responsibility.

## SECTION K103 PERMITS

**K103.1 Types of permits.** An *owner*, authorized agent or contractor who desires to construct, enlarge, alter, *repair*, move, demolish or change the occupancy of a building or structure, or to erect, install, enlarge, alter, *repair*, remove, convert or replace electrical systems or equipment, the installation of which is regulated by this code, or to cause such work to be done, shall first make application to the *building official* and obtain the

required *permit* for the work.

**Exception:** Where *repair* or replacement of electrical systems or equipment must be performed in an emergency situation, the *permit* application shall be submitted within the next working business day of the department of electrical inspection.

**K103.2 Work exempt from permit.** The following work shall be exempt from the requirement for a *permit*:

1. Listed cord- and plug-connected temporary decorative lighting.
2. Reinstallation of attachment plug receptacles, but not the outlets therefor.
3. Replacement of branch circuit overcurrent devices of the required capacity in the same location.
4. Temporary wiring for experimental purposes in suitable experimental laboratories.
5. Electrical wiring, devices, appliances, apparatus or equipment operating at less than 25 volts and not capable of supplying more than 50 watts of energy. Exemption from the permit requirements of this code shall not be deemed to grant authorization for work to be done in violation of the provisions of this code or other laws or ordinances of this jurisdiction.

**Section K103.3 Expiration;** *the International Building Code, Appendix K has been amended by adding a new subsection K103.3, Expiration, to read as follows:*

**K103.3 Expiration.** Every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within 180 days after its issuance, or if the work authorized on the site by such permit is suspended, abandoned or if no required inspections, as required in this code, have been scheduled by the permit applicant and performed by the building official, as required in this code, for a period of 180 days after the time the work is commenced. The building official is authorized to grant, in writing, one or more extensions of time, for periods not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

## **SECTION K104 CONSTRUCTION DOCUMENTS**

**K104.1 Information on construction documents.** *Construction documents* shall be drawn to scale upon suitable material. Electronic media documents are permitted to be submitted where *approved* by the *building official*. *Construction documents* shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that such work will conform to the provisions of this code and relevant laws, ordinances, rules and regulations, as determined by the *building official*.

**K104.2 Penetrations.** *Construction documents* shall indicate where penetrations will be made for electrical systems and shall indicate the materials and methods for maintaining required structural safety, *fire-resistance rating* and *fireblocking*.

**K104.3 Load calculations.** Where an *addition* or *alteration* is made to an existing electrical system, an electrical load calculation shall be prepared to determine if the existing electrical service has the capacity to serve the added load.

## **SECTION K105 ALTERNATIVE ENGINEERED DESIGN**

**K105.1 General.** The design, documentation, inspection, testing and approval of an

alternative engineered design electrical system shall comply with this section.

**K105.2 Design criteria.** An alternative engineered design shall conform to the intent of the provisions of this code and shall provide an equivalent level of quality, strength, effectiveness, *fire resistance*, durability and safety. Materials, equipment or components shall be designed and installed in accordance with the manufacturer's instructions.

**K105.3 Submittal.** The *registered design professional* shall indicate on the *permit* application that the electrical system is an alternative engineered design. The *permit* and permanent *permit* records shall indicate that an alternative engineered design was part of the *approved* installation.

**K105.4 Technical data.** The *registered design professional* shall submit sufficient technical data to substantiate the proposed alternative engineered design and to prove that the performance meets the intent of this code.

**K105.5 Construction documents.** The *registered design professional* shall submit to the *building official* two complete sets of signed and sealed *construction documents* for the alternative engineered design. The *construction documents* shall include floor plans and a diagram of the work.

**K105.6 Design approval.** Where the *building official* determines that the alternative engineered design conforms to the intent of this code, the electrical system shall be *approved*. If the alternative engineered design is not *approved*, the *building official* shall notify the *registered design professional* in writing, stating the reasons therefor.

**K105.7 Inspection and testing.** The alternative engineered design shall be tested and inspected in accordance with the requirements of this code.

## SECTION K106 REQUIRED INSPECTIONS

**K106.1 General.** The *building official*, upon notification, shall make the inspections set forth in this section.

**K106.2 Underground.** Underground inspection shall be made after trenches or ditches are excavated and bedded, piping and conductors installed, and before backfill is put in place. Where excavated soil contains rocks, broken concrete, frozen chunks and other rubble that would damage or break the raceway, cable or conductors, or where corrosive action will occur, protection shall be provided in the form of granular or selected material, *approved* running boards, sleeves or other means.

**K106.3 Rough-in.** Rough-in inspection shall be made after the roof, framing, *fireblocking* and bracing are in place and all wiring and other components to be concealed are complete, and prior to the installation of wall or ceiling membranes.

**K106.4 Contractors' responsibilities.** It shall be the responsibility of every contractor who enters into contracts for the installation or repair of electrical systems for which a *permit* is required to comply with adopted state and local rules and regulations concerning licensing.

## SECTION K107 PREFABRICATED CONSTRUCTION

**K107.1 Prefabricated construction.** Prefabricated construction is subject to Sections K107.2 through K107.5.

**K107.2 Evaluation and follow-up inspection services.** Prior to the approval of a

prefabricated construction assembly having concealed electrical work and the issuance of an electrical *permit*, the *building official* shall require the submittal of an evaluation report on each prefabricated construction assembly, indicating the complete details of the electrical system, including a description of the system and its components, the basis upon which the system is being evaluated, test results and similar information, and other data as necessary for the *building official* to determine conformance to this code.

**K107.3 Evaluation service.** The *building official* shall designate the evaluation service of an *approved* agency as the evaluation agency and review such agency's evaluation report for adequacy and conformance to this code.

**K107.4 Follow-up inspection.** Except where ready access is provided to electrical systems, service equipment and accessories for complete inspection at the site without disassembly or dismantling, the *building official* shall conduct the in-plant inspections as frequently as necessary to ensure conformance to the *approved* evaluation report or shall designate an independent, *approved* inspection agency to conduct such inspections. The inspection agency shall furnish the *building official* with the follow-up inspection manual and a report of inspections upon request, and the electrical system shall have an identifying label permanently affixed to the system indicating that factory inspections have been performed.

**K107.5 Test and inspection records.** Required test and inspection records shall be available to the *building official* at all times during the fabrication of the electrical system and the erection of the building; or such records as the *building official* designates shall be filed.

## SECTION K108 TESTING

**K108.1 Testing.** Electrical work shall be tested as required in this code. Tests shall be performed by the *permit* holder and observed by the *building official*.

**K108.1.1 Apparatus, material and labor for tests.** Apparatus, material and labor required for testing an electrical system or part thereof shall be furnished by the *permit* holder.

**K108.1.2 Reinspection and testing.** Where any work or installation does not pass an initial test or inspection, the necessary corrections shall be made so as to achieve compliance with this code. The work or installation shall then be resubmitted to the *building official* for inspection and testing.

## SECTION K109 RECONNECTION

**K109.1 Connection after order to disconnect.** A person shall not make utility service or energy source connections to systems regulated by this code, which have been disconnected or ordered to be disconnected by the *building official*, or the use of which has been ordered to be discontinued by the *building official* until the *building official* authorizes the reconnection and use of such systems.

## SECTION K110 CONDEMNING ELECTRICAL SYSTEMS

**K110.1 Authority to condemn electrical systems.** Wherever the *building official* determines that any electrical system, or portion thereof, regulated by this code has become hazardous to life, health or property, the *building official* shall order in writing that such electrical systems either be removed or restored to a safe condition. A time limit for compliance with such order shall be specified in the written notice. A person shall not use or maintain a defective electrical system or equipment after receiving such notice.

Where such electrical system is to be disconnected, written notice as prescribed in this code shall be given. In cases of immediate danger to life or property, such disconnection shall be made immediately without such notice.

## SECTION K111 ELECTRICAL PROVISIONS

**K111.1 Adoption.** Electrical systems and equipment shall be designed, constructed and installed in accordance with the *International Residential Code* or NFPA 70 as applicable, except as otherwise provided in this code.

**[F] K111.2 Abatement of electrical hazards.** All identified electrical hazards shall be abated. All identified hazardous electrical conditions in permanent wiring shall be brought to the attention of the *building official* responsible for enforcement of this code. Electrical wiring, devices, appliances and other equipment that is modified or damaged and constitutes an electrical shock or fire hazard shall not be used.

**[F] K111.3 Appliance and fixture listing.** Electrical appliances and fixtures shall be tested and *listed* in published reports of inspected electrical equipment by an *approved* agency and installed in accordance with all instructions included as part of such listing.

*Section K111.4 Nonmetallic-sheathed cable; the International Building Code, Appendix K, Administrative Provisions, has been amended by deleting subsection K111.4 Nonmetallic-sheathed cable in its entirety.*

**K111.5 Cutting, notching and boring.** The cutting, notching and boring of wood and steel framing members, structural members and engineered wood products shall be in accordance with this code.

*Section K111.6 Smoke alarm circuits; the International Building Code, Appendix K, Administrative Provisions, has been amended by deleting subsection K111.6 Smoke alarm circuits in its entirety.*

**K111.7 Equipment and door labeling.** Doors into electrical control panel rooms shall be marked with a plainly visible and legible sign stating ELECTRICAL ROOM or similar *approved* wording. The disconnecting means for each service, feeder or branch circuit originating on a switchboard or panelboard shall be legibly and durably marked to indicate its purpose unless such purpose is clearly evident.

*Section K112 Supervision of work; the International Building Code, Appendix K has been amended by adding a new section K112, subsection K112.1 Supervision of work, to read as follows:*

**Section K112.1 Supervision of work.** In the actual work of installing, maintaining, altering or repairing any electric conductors or equipment for which this Article or other ordinance requires a permit, there shall be present and in direct supervision a qualified electrician of the proper classification. An electrical contractor or master electrician shall be liable and responsible for layout and technical supervision of any work which requires a permit and a journeyman or higher classified grade electrician shall be in direct “on the job” supervision of work carried on specified in this Article. Should it come to the attention of the Electrical Inspector or his assistants that such supervision and control are not being maintained, the Inspector may order the work to be



discontinued and the person to whom the permit has been issued shall discontinue further work until proper supervision has been employed or supplied. Nothing in this section shall be construed as prohibiting the employment of apprentices assisting a person duly registered and qualified under the provisions of this Article. It shall be unlawful to have more than four (4) apprentice electricians working under the supervision of a duly registered person on any one job.

#### **Exceptions**

- (1) A homesteader may personally install electrical conductors or equipment, without a licensed electrical contractors' supervision, within his own homestead if the homesteader files with the building official approved plans and specifications, applies for and secures a permit, pays required fees, does work in accordance with this Article and applies to the building official for all required inspections.

*Section K113 Schedule of permit fees; the International Building Code, Appendix K has been amended by adding a new section K113, subsection K113.1, Schedule of permit fees, to read as follows:*

**K113.1 Schedule of permit fees.** On buildings, structures, electrical, gas, mechanical, and plumbing systems or *alterations* requiring a *permit*, a fee for each *permit* shall be paid as required, in accordance with the schedule as established by the applicable governing authority. The fee for each permit as required in this code will be as established in Article I "General Provisions" of Chapter 18 of the Code of Ordinances.

*Section K114 General Board of Appeals; the International Building Code, Appendix K has been amended by adding a new section K114, subsection K114.1, General Board of Appeals, to read as follows:*

**K114.1 General Board of Appeals.** The board of appeals shall be as established in the Town's most current adopted Building Code as prescribed in Chapter 18, Article II of Addison Code of Ordinances.

*Section K115 Violations; the International Building Code, Appendix K has been amended by adding a new section K115, subsection K115.1, Violation penalties, to read as follows:*

**K115.1 Violation penalties.** Any person who violates a provision of this code or fails to comply with any of the requirements thereof or who erects, constructs, alters or repairs a building or structure in violation of the *approved construction documents* or directive of the *building official*, or of a *permit* or certificate issued under the provisions of this code, shall be subject to the penalties as prescribed by law. Any person, firm or corporation violating any of the provisions of this code shall be subject to a fine, upon conviction in the municipal court, in any sum a minimum of five hundred dollars (\$500.00) per day and not to exceed one thousand dollars (\$1000.00) per day and each and every day of continuance thereof shall constitute a distinct and separate offense. The owner or owners of any building or structure failing to comply with any provisions of this code, and the owner or owners of any premises wherein a violation of the provisions of this code occurs, and any architect, engineer, designer, builder, contractor, agent, person, firm or corporation employed therewith and who has assisted in the commission of any such violation, shall be guilty of a separate offense.

### **Division III Deletions, Amendments and Additions.**

#### **Sec. 18-60. – Deletions, amendments, and additions.**

The National Electrical Code, 2017 Edition, as adopted in this article, is hereby modified by the deletions, amendments and additions provided herein to read as follows:

*Section 110.5 Conductors; the National Electrical Code has been amended by adding a new sentence, to read as follows:*

**110.5 Conductors.** Conductors normally used to carry current shall be of copper unless otherwise provided in this *Code*. Where the conductor material is not specified, the material and the sizes given in this *Code* shall apply to copper conductors. Where other materials are used, the size shall be changed accordingly. Aluminum conductors shall be number 8 or larger and shall not be use on branch circuits.

**Sections 18-61 through 18-70 reserved.**

**SECTION 3. Penalty Provision.** Any person, firm, corporation or business entity violating this Ordinance shall be deemed guilty of a misdemeanor, and upon conviction therefore, shall be fined a sum of a minimum of five hundred dollars (\$500.00) per day and not to exceed one thousand dollars (\$1000.00) per day, and each and every day that such violation continues shall be considered a separate offense; provided, however, that such penal provision shall not preclude a suit to enjoin such violation. Addison retains all legal rights and remedies available to it pursuant to local, state and federal law.

**SECTION 4. Savings/Repealing Clause.** All provisions of any ordinance in conflict with this Ordinance are hereby repealed to the extent they are in conflict; but such repeal shall not abate any pending prosecution for violation of the repealed ordinance, nor shall the repeal prevent a prosecution from being commenced for any violation if occurring prior to the repeal of the ordinance. Any remaining portion of conflicting ordinances shall remain in full force and effect.

**SECTION 5. Severability.** If any section, subsection, sentence, clause or phrase of this Ordinance is for any reason, held to be unconstitutional or invalid by a court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Ordinance. Addison hereby declares that it would have passed this Ordinance, and each section, subsection, clause or phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses, and phrases be declared unconstitutional.

**SECTION 6. Effective Date.** This Ordinance shall become effective June 1, 2020.

**PASSED AND APPROVED BY THE CITY COUNCIL OF THE TOWN OF ADDISON, TEXAS** on this 28<sup>th</sup> day of APRIL 2020.

**TOWN OF ADDISON, TEXAS**

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Joe Chow, Mayor



**ATTEST:**

**APPROVED AS TO FORM:**

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Irma Parker, City Secretary

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Brenda N. McDonald, City Attorney

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