

RESOLUTION NO. 147-2020

Date Adopted: 12/2/2020

Date Published: _____

Effective Date: January 1, 2021

**A RESOLUTION TO ADOPT THE NATIONAL ELECTRICAL CODE,
2020 EDITION**

WHEREAS, pursuant to K.S.A. 12-1527, any city or county may adopt and enforce electrical codes, standards, and regulations as their governing bodies deem appropriate; and

WHEREAS, pursuant to K.S.A. 19-101d, the Kansas State Legislature granted the Board of County Commissioners of Sedgwick County the authority to enforce all resolutions passed pursuant to county home rule powers; and

WHEREAS, the Board of County Commissioners adopted the Wichita-Sedgwick County Unified Building and Trade Code ("UBTC") within Sedgwick County Resolution 175-2012; and

WHEREAS, Article IV of the UBTC contains the Electrical Code; and

WHEREAS, this Resolution adopts and incorporates the National Electrical Code, 2020 Edition, with local amendments, into Article IV of the UBTC.

NOW, THEREFORE, BE IT RESOLVED THAT THE BOARD OF COUNTY COMMISSIONERS OF SEDGWICK COUNTY, KANSAS, AMENDS THE WICHITA-SEDGWICK COUNTY UNIFIED BUILDING AND TRADE CODE AS FOLLOWS:

SECTION 1.

SECTION 4.A.050 – Definitions is hereby amended to read as follows:

"Apprentice" means an individual who works as an employee in training under the direct supervision of a Journeyman or Master (while performing electrical work). An Apprentice is not a certified individual.

"Approved" as used in reference to materials or methods of construction, means that which conforms to standards as set forth in Section 2.010 of this Code and that which meets the

approval of the Director of the MABCD of electrical and elevator section or the board of electrical appeals as the result of tests and investigations made by recognized technical or scientific organizations.

"Board" means the Board of Appeals appointed for electrical, elevator, alarm and renewable energy.

"Code" means the National Electrical Code, ASME Elevator Safety Codes, and Renewable Energy Codes as adopted by the MABCD, as the context of this Article may require.

"Building Code," as used in this Code, means Article 2 of this Code.

"Code Official" as used in this Code, means the Director of the MABCD or designee(s) of electrical and elevator section.

"Direct supervision" means that the apprentice/helper is limited to the same structure and/or building site as the Journeyman or Master.

"Electrical Contractor" is a person, firm or corporation licensed to bid, plan, layout, install and supervise the installation of electrical wiring, or the installation of electrical equipment, devices or apparatus for light, heat or power purposes in or on any building or premises.

"Field Experience" means working under the direct supervision of a person having a valid Journeyman or Master certificate or attending trade related schooling. No more than one year of the requirement may be satisfied by trade related schooling. Schooling shall consist of a minimum of the required hours per state statute.

"Helper" means an individual who works as an employee in training under the direct

supervision of a Journeyman or Master (while performing electrical work). A helper is not a certified individual.

"Job site" is defined as the property that an individual permit is issued for.

"Journeyman" means an individual working for a licensed contractor as defined in Sec. 1.250 and engaged principally in the occupation of erecting, installing, altering, repairing, servicing or maintaining in any or all of the following classifications and who is duly certified as herein set forth to engage in such occupation: A Journeyman is responsible for the supervision of any apprentice/helper assigned to work with them.

"Licensed contractor" means a person, firm, partnership, corporation, limited liability company, association or combination thereof, who undertakes or offers to undertake for another, for hire, the planning, laying out, supervising and installing or making additions, alterations, and repairs in the installation of electrical, elevator, accessibility lift, alarm, or renewable energy.

"Licensed trade" or "trade" means the electrical, elevator, accessibility lift, alarm, or renewable energy, as the context of this article may require.

"Master" means an individual that holds a Master certificate issued pursuant to this article evidencing such person to be qualified to lay out, install, maintain and repair work in their area of expertise. A Master is responsible for the supervision of any apprentice/helper assigned to work with them.

"Person" means a natural person, his heirs, executives, administrators or assigns, and including a firm, partnership or corporation, its or their successors or assigns. Singular

includes plural, male includes female.

"Qualified Master" or "Qualified Person" means an individual who holds a Master certificate issued pursuant to this article evidencing such person to be qualified to control and have authority of all technical work performed under the authority of the licensed contractor's enterprise, and assures quality control and is responsible for complying with all applicable laws, codes and regulations. An individual shall not be the Qualified Master or Qualified Person for more than one licensed contractor's enterprise.

"Temporary" as used in this section is a period of time not to exceed ninety (90) consecutive days in a calendar year.

SECTION 2.

SECTION 4.1.020 – Electrician's certificates – Application – Examination is hereby amended to read as follows:

Applications for examination for a master electrician's certificate or a journeyman electrician's certificate or a residential wireman electrician's certificate shall be made to the office of the MABCD. The fee for an examination for a master electrician, journeyman electrician or residential wireman electrician shall be established by the Director of the MABCD, to cover the administrative costs.

Applicants for master electrician examination shall provide written documented proof of having a valid journeyman electrician certificate for a minimum of two (2) years.

Applicants for journeyman electrician and residential wireman electrician shall provide written

documented proof of at least two (2) years field experience in the electrical construction industry. “Field experience” means working under the direct supervision of a person having a valid journeyman certificate or master certificate or attending an accredited electrical trade school. No more than one (1) year of the requirement may be satisfied by trade related schooling. Schooling shall consist of a minimum of the required hours per state statute. Documentation shall be the following:

Written letter on company letterhead from employer(s) stating job description and dates of employment and signed by a person qualified in the electrical trade; and

Copy of a transcript or attendance record from an accredited electrical trade school.

The electrical examination will be administered in accordance with K.S.A. 12-1525 and amendments thereto, with a minimum passing score of seventy-five percent (75%).

SECTION 3.

SECTION 4.2.010 – Installation standards is hereby amended to read as follows:

“All electrical installations made shall be in strict conformity with the provisions of this Code. If sections contained within this Code, in a given situation, do not prescribe a specific type or class of material or specific standards of construction, then the standards as set forth and contained in the National Electrical Code, 2020 Edition including Informative Annex C (Conduit and Tubing Fill Tables), as published by the National Fire Protection Association as N.F.P.A. No. 70-2020, as presently constituted and as may be hereinafter amended, shall apply. with the exception of Section 200.6(d); Section 210.5(c)(1); Section 225.30(b); Section 230.67; Section 334.10(1)-(5); Section 334.12(a)(1); and Section 680.9; of such publication. Said N.F.P.A. No. 70-2020, was

adopted by the National Fire Protection Association at its 2019 June Technical Session and approved as an American National Standard on August 25, 2019. By this publication, all provisions of such publication, with noted exceptions, are adopted by reference and made a part of this Code, and this Section as though fully set forth herein.

SECTION 4.

SECTION 4.2.036 – Number of services.

“Section 230.2 of the National Electrical Code (NEC) shall be amended to read as follows:

A building or other structure served shall be supplied by only one service drop or lateral unless permitted in Section 230.2(A), (C), or (D).

SECTION 5.

SECTION 4.2.037 – Ground Fault Protection of Equipment – Performance Testing.

“Section 230.95(C) of the National Electrical Code (NEC) shall be amended to read as follows:

Effective January 1, 2022. The ground-fault protection system shall be performance tested when first installed on site. This testing shall be conducted by a qualified person(s) using a test process of primary current injection, in accordance with instructions that shall be provided with the equipment. A written record of this testing shall be made and shall be available to the authority having jurisdiction.

SECTION 6.

SECTION 4.2.038 – Arc Energy Reduction – Performance Testing.

“Section 240.67(C) of the National Electrical Code (NEC) shall be amended to read as follows:

Effective January 1, 2022. The arc energy reduction protection system shall be performance tested by primary current injection testing or another approved method when first installed on site. This testing shall be conducted by a qualified person(s) in accordance with the manufacturers instructions. A written record of this testing shall be made and shall be available to the authority having jurisdiction.

SECTION 7.

SECTION 4.2.040 – Number of service - Entrance conductor sets is hereby amended to read as follows:

“Section 230.40 of the National Electrical Code (NEC) shall be amended to read as follows:

Number of Service-Entrance Conductor Sets. Each building shall be supplied by only one service drop or lateral per Section 4.2.036. Each service drop or lateral shall supply only one set (or sets where connected in parallel) of service-entrance conductors. All service-entrance conductors shall terminate at the same location. Fire Separation shall be maintained between each building. No service wiring shall penetrate fire separation designed to create a separate building for the purpose of this section.

Exception #1: Where two to six service disconnecting means in separate enclosures are grouped at one location, one set of service-entrance conductors shall be permitted to supply each such service equipment enclosure.

Exception #2: A two family dwelling unit without an approved area separation wall as defined by the currently adopted Building Code, and served from one service drop or lateral, shall be permitted to have one set of service entrance conductors run to each dwelling unit without the mains from both units being located together.

SECTION 8.

SECTION 4.2.045 – Services – Other than one-family and two-family dwellings - Maximum amps, volts, length, etc. is hereby relocated from 4.2.050 and amended to read as follows:

“Section 230.70 of the National Electrical Code (NEC) shall be amended to read as follows:

A. Service Length. Unfused service entrance conductors shall not be extended more than fifteen (15) feet inside any building.

B. Service Disconnects. Main disconnects shall be installed on the load side of the utility company's meters where not more than six meters and service equipment are grouped together. Where there is an existing main disconnect ahead of six meters or less and all the services are completely revamped, the main disconnects shall be relocated on the load side of the meters.

SECTION 9.

SECTION 4.2.050 – Number of supplies – feeders, branch circuits.

“Section 225.30 of the National Electrical Code (NEC) shall be amended to read as follows:

A building or other structure that is served by a branch circuit or feeder on the load side of a service disconnecting means shall be supplied by only one feeder or branch circuit unless permitted in Section 225.30(A), (C), or (D). Each building shall be supplied by only one feeder, or branch circuit. Fire Separation shall be maintained between each building. No branch circuit or feeder wiring shall penetrate a fire separation designed to create a separate building for the purpose of this section.

SECTION 10.

SECTION 4.2.055 – Feeder or branch circuit – disconnecting means – location is hereby amended to read as follows:

“Section 225.32 of the National Electrical Code (NEC) shall be amended to read:

(a). For Commercial feeders and branch circuits.

The disconnecting means shall be installed either inside or outside of the building or structure served or where the conductors pass through the building or structure and shall meet the requirements of Section 225.34. The disconnecting means, if installed on the exterior of the building or structure, shall be at a readily accessible location nearest the point of entrance of the conductors. The disconnecting means, if installed inside the building or structure, shall be at a readily accessible location and located so the total length of conductor shall not be extended more than fifteen (15) feet inside of the building or structure. For the purposes of this section, the requirements of Section 230.6 shall be utilized.

(b). For one-family and two-family dwellings and their accessory structures.

The disconnecting means shall be installed outside of the building or structure served. The disconnecting means shall be at a readily accessible location nearest the point of entrance of the

conductors.

NEC exceptions permitted.

SECTION 11.

SECTION 4.2.060 – Branch circuit panelboard requirements is hereby amended to read as follows:

The Residential main service panel(s) shall be sufficiently large enough to provide four blank spaces or four overcurrent protective devices for future use.

SECTION 12.

SECTION 4.2.120 – Switches – Disconnecting means – Height of is hereby amended to read as follows:

“All disconnecting means located outside of a building shall be placed not less than six feet above the finish grade unless they are of the dead front pullout type, or heavy duty type.

Exception. Commercial and industrial installations which are accessible only to authorized personnel.

SECTION 13.

SECTION 4.2.125. – Type NM, NMC and NMS cable ampacity is hereby deleted:

SECTION 14.

SECTION 4.2.130 – NM Cable connectors is hereby deleted:

SECTION 15.

SECTION 4.2.150 – Ceiling grid support wires is hereby amended to read as follows:

“The following is added to Section 300.11(B)(2) of the National Electrical Code (NEC):

Exception No. 2: MC cable or flexible metal conduit may be attached to the ceiling grid support wires serving lighting fixtures located within the ceiling grid area where all the following conditions apply.

1. The MC cable or flexible metal conduit must not be larger than trade size ½ inch.
2. Only a single MC cable or flexible metal conduit may be attached per ceiling grid support wire.
3. Only clips or devices approved for the purpose may be used to attach the MC cable or flex to the support wires.

Fire Rated ceiling assemblies shall not be used to support electrical raceways and all raceways installed within fire rated ceiling assemblies shall be provided with independent support.

SECTION 16.

SECTION 4.2.155 – Boxes at ceiling-suspended (paddle) fan outlets - location.

“Section 314.27(c) of the National Electrical Code (NEC) shall be amended to read as follows:

Outlet boxes mounted in the ceilings of habitable rooms of dwelling occupancies in the following locations:

(a). In any habitable room where the box is located in the center of the space and the installation of a ceiling fan may be likely at the discretion of the AHJ.

Shall comply with one of the following:

1. Listed for sole support of the ceiling-suspended (paddle) fans.
2. An outlet box complying with the applicable requirements of Section 314.27 and providing access to structural framing capable of the supporting of a ceiling-suspended (paddle) fan bracket or equivalent.

SECTION 17.

SECTION 4.2.167 – Dwelling Unit GFCI protection for 250-volt receptacles.

“Section 210.8(a) of the National Electrical Code (NEC) shall be amended to read as follows:

All 125-volt, and effective January 1, 2024, all 250-volt receptacles installed in the locations specified in Section 210.8(A)(1) through (A)(11) and supplied by single-phase branch circuits rated 150- volts to ground shall have ground-fault circuit interrupter protection for personnel.

SECTION 18.

SECTION 4.2.169 – Outdoor Outlets – GFCI protection – 250-volt.

“Section 210.8(f) of the National Electrical Code (NEC) shall be amended to read as follows:

Effective January 1, 2024, all outdoor outlets for dwellings, other than those covered in Section 210.8(A)(3), Exception to (3), that are supplied by single-phase branch circuits rated 150 volts to ground or less, 50 amperes or less, shall have ground-fault circuit-interrupter protection for personnel.

SECTION 19.

SECTION 4.2.170 – Wiring methods for commercial and mixed-use occupancies.

“In commercial buildings and mixed-use occupancies, all wiring on or within the property including accessory structures shall be installed in approved raceways such as EMT, PVC, or MC cable. Cable assemblies such as type NM, NMC, NMS, SE and UF shall not be permitted.

SECTION 20.

SECTION 4.2.180 – Nonmetallic-sheathed cable – Type MN, MMC, and NMS – Uses

Permitted is hereby amended to read as follows:

“Section 334.10(1) – (5) of the National Electrical Code (NEC) shall be amended to read as follows:

Uses permitted: Type NM, Type NMC and Type NMS cable shall be permitted in the following locations only:

1. In one and two-family dwellings and their accessory structures.

2. Within multifamily (apartment building), dwelling units where the structure does not exceed three floors above or below grade, and the structure is not mixed use or occupancy.
3. In Residential Group R3 and Residential Group R4 occupancies as defined in the International Building Code (IBC), with a maximum of 16 residents.

When the utility provided to the property and serving these structures are single-phase services only.

All electrical wiring associated with common area panels and separate structures are considered commercial applications. NM, NMC, and NMS type cable assemblies shall not be permitted.

SECTION 21.

SECTION 4.2.193 – Lighting outlets required is hereby amended to read as follows:

“The following requirements for lighting outlets are in addition to the requirements in the latest edition of the National Electrical Code adopted by the MABCD.

A. Residential unfinished basements. Each storage area and all future habitable spaces, as defined by the currently adopted Building Code, that are in the framed-in stage shall have a lighting outlet with a wall-mounted switch for each area or room. Lighting outlets containing a switch, shall be controlled by a wall switch.

B. Commercial storage units. Each storage unit with an allowable area greater than 100 square feet shall have a lighting outlet inside the unit with a switch located at the usual point of entry to the storage unit. This luminaire shall be of the type that has a completely enclosed light source.

Exception: Structures that are not on a permanent foundation.

SECTION 22.

The originals of Sections 4.A.050, 4.1.020, 4.2.010, 4.2.040, 4.2.050, 4.2.055, 4.2.060, 4.2.120, 4.2.125, 4.2.130, 4.2.150, 4.2.180, AND 4.2.193 as written prior to the passage of this Resolution, are hereby repealed.

SECTION 23.

This Resolution shall be included in the Wichita-Sedgwick County Unified Building and Trade Code, and shall be effective on January 1, 2021.

Commissioners present and voting were:

PETER F. MEITZNER

AYC

DAVID T. DENNIS

AYC

LACEY D. CRUSE

AYC

JAMES M. HOWELL

AYC

Dated this 2 day of December, 2020.

ATTEST:

Kelly B. Arnold
KELLY B. ARNOLD, County Clerk



BOARD OF COUNTY COMMISSIONERS
OF SEDGWICK COUNTY, KANSAS

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Commissioner, Second District

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Commissioner, Third District

James M. Howell
JAMES M. HOWELL
Commissioner, Fifth District

APPROVED AS TO FORM:

Justin M. Waggoner
JUSTIN M. WAGGONER
Assistant County Counselor