

Chapter 9-405

ELECTRICAL CODE

Sections:

- 9-405.010 Adoption of the National Electrical Code 2017, Edition.
- 9-405.020 Citation of Code.
- 9-405.030 Administration.
- 9-405.040 Defective or Improperly Operating Electrical Equipment; Notice to Owner; Discontinuance of Electrical Service.
- 9-405.050 Right of Entry.
- 9-405.060 Building Official and Authorized Representative Relieved From Personal Liability.
- 9-405.070 Bypassing Electric Revenue Meters.
- 9-405.080 Severability.
- 9-405.090 Penalty.
- 9-405.100 Electrical Advisory and Appeals Board; Creation.
- 9-405.110 Electrical Board; Authority and Duties.
- 9-405.120 Appeals from Decision, Notice, or Order of Building Official.
- 9-405.130 Scope.
- 9-405.140 Permits Required.
- 9-405.150 Issuance of Permit.
- 9-405.160 Installation by Homeowner.
- 9-405.170 Inspections, Conducted by Building Official.
- 9-405.180 Inspections Required.
- 9-405.190 Inspections, Request For.
- 9-405.195 Inspections, Procedures.
- 9-405.200 Registration of City and State Electricians of All Classes.
- 9-405.230 Classification of City Registrations.
- 9-405.240 Renewal of Registration.
- 9-405.250 Registration to be Used Only by Holder.
- 9-405.260 Suspension or Revocation of Registration.
- 9-405.270 Certificates of Insurance; State of Nebraska Electrical Contractor and Fire Alarm Installer.
- 9-405.290 Installation Standards and Approved Wiring Methods.
- 9-405.300 Services, Disconnects, Sub-Feeders and Metering Requirements.
- 9-405.510 Code Coordination.
- 9-405.520 Permit Fees.

9-405.010 Adoption of the National Electrical Code, 2017 Edition.

Except as hereinafter provided, the National Electrical Code (2017 edition), hereinafter the National Electrical Code, sponsored by the National Fire Protection Association under the auspices of the American National Standards Institute, is hereby adopted as the minimum wiring standard for the City of Hickman. One printed copy of this document have been filed in the office of the City Clerk of the City of Hickman for the use of and examination by the public. The City Clerk shall maintain one printed copy of this document, in book form, with the official records of the city.

9-405.020 Citation of Code.

This ordinance shall be known as the “Hickman Electrical Code,” and may be cited as such and will be referred to herein as “this code.” The word “shall” as used in this ordinance indicates a mandatory rule.

9-405.030 Administration.

The City Administrator, hereinafter designated as “Building Official,” or an authorized representative of the Building Official (i.e. Building Inspector), is hereby authorized and directed to enforce the provisions of this code.

9-405.040 Defective or Improperly Operating Electrical Equipment; Notice to Owner; Discontinuance of Electrical Service.

- (a) The Building Official shall examine or cause to be examined any electrical equipment within or on any building or premises reported to be defective or in improper operating condition. If such equipment is found to be defective or in improper operating condition so as to constitute a danger to persons or property, the Building Official shall give to the owner of such building or premises written notice stating the deficiencies found to exist. This notice shall require the owner or person having charge or control of such building or premises, to commence work to correct such deficiencies, and all such work shall be completed within the time frame set forth in said notice.

Proper service of such notice shall be by personal service upon the owner of record or by certified mail to said owner’s last known address. The designated period within which said owner or persons having charge or control is required to comply with the order of the Building Official shall begin as of the date said owner receives such notice. In cases where the owner cannot be reached, refuses to reply, or refuses to comply with the directions given in the notice, the provisions of part (b) shall take precedence.

- (b) The Building Official or an authorized representative are hereby vested with the authority to order the discontinuance of electrical service to any building or premises where such deficiencies in electrical equipment have not been corrected within the time specified by such notice, or said owner refuses to comply with the direction given in the notice in accordance with section (a). In instances where the deficiencies constitute a danger to persons or property, the Building Official is hereby vested with the authority to immediately disconnect the electrical service to said building or property. Existing installations shall not be deemed a deficiency, provided the wiring when originally completed was installed in accordance with the provisions of the electrical code then in force and has been maintained in that condition.

9-405.050 Right of Entry.

- (a) Whenever necessary to make an inspection to enforce any of the provisions of or perform any duty imposed by this code, or whenever the Building Official has reasonable cause to believe there exists within or on any building or premises any equipment, as defined in this code, which makes such building or premises dangerous, hazardous, or unsafe for any reason specified in this code, or that work is being done or has been done in violation of this code, including work being done without a permit or work being done by an unlicensed person or persons, then the Building Official is hereby authorized

to enter within or on such building or premises at any reasonable time to inspect the same and perform any duty imposed upon the Building Official by this code; provided, that (1) if such building or premises be occupied, the Building Official shall first present proper credentials to the occupant and request entry, explaining the reasons therefor, and (2) if such building or premises be unoccupied, the Building Official shall first make a reasonable effort to locate the owner or other person having charge or control of such building or premises and request entry, explaining their reasons therefor. If such entry is refused or cannot be obtained because the owner or other person having charge or control of such building or premises cannot be found after due diligence, the Building Official shall have recourse to every process provided by law to secure lawful entry and inspect such building or premises.

9-405.060 Building Official and Authorized Representative Relieved From Personal Liability.

The Building Official or an authorized representative charged with enforcement of this code, when acting in good faith and without malice, are hereby relieved from all personal liability for any damage that may accrue to any person or property as a result of any act required by this code, or by reason of any act or omission of the Building Official or an authorized representative in the discharge of their duties hereunder. Any suit brought against the Building Official or an authorized representative, because of any such act or omission in the enforcement of this code, shall be defended by the City Attorney until final determination of such proceedings.

9-405.070 Bypassing Electric Revenue Meters.

- (a) Any person, firm, or corporation who by-passes the electric revenue meter shall be deemed in violation of this code. Proper metering and overcurrent protection shall be installed immediately or the service entrance conductors shall be disconnected.
- (b) It shall be deemed a violation of this code for any person, firm, or corporation to tap any metered conductor of another for the purpose of theft of power.
- (c) It shall be unlawful for any seller of electric power to continue to sell electric power to any person, firm, or corporation described in subsection (a) above, unless the required service equipment and meter are installed as provided therein.

9-405.080 Severability.

If any section, subsection, paragraph, sentence, clause, phrase, or provision of this ordinance shall be adjudged invalid, or held unconstitutional, the same shall not affect the validity of this ordinance as a whole or any part of provision thereof, other than the part so declared to be invalid or unconstitutional.

9-405.090 Penalty.

- (a) It shall be unlawful for any person, firm, or corporation upon whom a duty is placed by the provisions of this code to fail or to neglect to comply with the provisions of this code.
- (b) Electrical equipment installed and/or connected to a source of electrical power by any person without a permit issued as set forth in this code, or any person, firm, corporation, or other entity causing any person to install and/or connect electrical equipment to a source of electrical power in violation of the provisions of this code shall be deemed in violation of this code and shall be subject to the penalties as set forth in the Municipal Code of the City of Hickman Chapter 9 Building Regulations, Article 6 Penal Provision.

9-405.100 Electrical Advisory and Appeals Board; Creation.

There is hereby created an Electrical Board, which is designated as the Hickman City Council.

9-405.110 Electrical Board; Authority and Duties.

The Electrical Board shall:

Have power and authority to hear and determine appeals by any person who is aggrieved by a decision, notice, or order of the Building Official under this code.

9-405.120 Appeals From Decision, Notice, or Order of Building Official.

- (a) Any person who is aggrieved by a decision, notice, or order of the Building Official under this code may appeal such decision to the Electrical Board by filing such appeal within ten days from the date of such decision. Upon request, the City Clerk shall furnish such aggrieved person with an appeal form, which, upon completion and filing within the prescribed time and payment of the prescribed fee per the Master Fee Schedule as amended, shall be sufficient for the purpose of commencing an appeal proceeding as set forth in the Municipal Code of the City of Hickman Chapter 9 Building Regulations, Article 1 Building Inspector.

9-405.130 Scope.

The provisions of this code shall apply within the corporate limits of the City of Hickman and within one mile thereof for all electric conductors and equipment installed within or on single family residential buildings, structures, and other premises. All other electrical installations shall be under the authority of the Nebraska State Electrical Division.

9-405.140 Permits Required.

- (a) No person, firm, or corporation other than a registered electrical contractor, journeyman electrician, residential journeyman electrician, apprentice of an electrical contracting company, or homeowner under certain conditions set forth in Section 9-405.160 shall install, alter, or add to any electrical equipment, and no such installation, alteration or addition shall be made without first obtaining a permit therefor from the Building Official. Permits may be issued only to registered electrical contractors or homeowners in accordance with Section 9-405.160 and registered State of Nebraska licensed fire alarm installers for the low voltage portion of fire alarm systems only.
- (b) No permit, license, or registration shall be required to execute any of the following classes of electrical work:
 - (1) Routine maintenance requiring the repair or replacement of existing electrical apparatus and equipment of the same size and type for which no changes in wiring are made. The replacement of permanently wired fixed-in-place appliances including, but not limited to, furnaces, air conditioners, garbage disposals, dishwashers and water heaters shall not be considered as routine maintenance and shall be subject to permit requirements.
 - (2) The installation, alteration, or repair of electrical equipment for the operation of signals or the transmission of electronic signals or data by wire.
 - (3) The installation, alteration, or repair of electrical equipment installed by or for an electricity supply agency for the use of such agency in the generation, transmission, distribution, or metering of electricity.

- (4) The installation, alteration, or repair of electric revenue meters, auxiliary metering equipment, meter sockets/enclosures owned, maintained, and wired by and under the exclusive control of the Hickman Electric System.
- (5) Installation, alteration, or repair made to electrical equipment, where such equipment operates at a voltage not exceeding fifty volts, except emergency alarm systems and other installations specifically referred to in this code. This shall not be construed as preemption of National Electrical Code Requirements for low voltage systems.
- (6) Any work involved in the manufacture, test, or repair of electrical materials, devices, appliances, or apparatus, but not including any permanent wiring other than that required for testing purposes.
- (7) Repair or replacement of motors on fixed approved appliances of the same type and rating in the same location.
- (8) The adjustment, repair, or maintenance of appliances designed to consume natural or artificial gas, fuel oils, or coal; provided, this exception shall not permit the replacement of an existing motor with one of a different rating.

Nothing in this subsection shall be construed to exempt any person, firm, or corporation from compliance with the standards prescribed by this code for the installation of electrical equipment, or from inspection as provided herein.

9-405.150 Issuance of Permit.

Applications for permits to install, alter, or add to electrical equipment shall be on forms furnished for that purpose by the Department and shall contain all information necessary to the lawful enforcement of the provisions of this code. Each application shall be accompanied by such plans and specifications as are required by the Department to determine that the work proposed conforms to the requirements of this code. The approval of any plans and/or specifications shall not be construed to sanction any violation of this code.

When the Building Official determines that the information on an application is in conformance with this code, the Department shall issue a permit upon receipt of the permit fees hereinafter prescribed. No permit holder shall deviate materially from any approved plans or specifications or fail, neglect, or refuse to comply therewith, unless permission to do so has been obtained from the Building Official or an authorized representative.

The issuance of a permit based upon plans and specifications shall not prevent the Building Official from thereafter requiring the correction of errors in said plans and specifications or preventing the initiation or continuance of work thereunder when in violation of this code or any other ordinance.

9-405.160 Installation by Non-Licensed Homeowners.

Non-licensed homeowners may install electrical branch circuit and feeder wiring only, in a standalone detached single family dwelling which they currently own and occupy as their principal residence. This shall include any ancillary structures located on the same property.

The electrical branch circuit and feeder wiring for the following shall not be installed by non-licensed homeowners:

- (1) Swimming pools, hot tubs, and similar equipment, including all associated components. Where a building permit is required to accommodate the installation of

said equipment all electrical wiring associated with the permitted work must be installed and completed by an electrical contractor.

EXCEPTION: Hydro-massage bathtubs for residential use as referenced in article 680 of the National Electrical Code.

- (2) Alternate or standby energy systems such as generators, wind, photovoltaic, fuel cell, or any other electrical energy producing system that is intended to use any part of a premise wiring system, or a utility connection for the transfer of the electrical energy produced by such systems.

NOTE: Branch circuit and feeder wiring allowed under this section does not include service equipment. Homeowners shall not perform upgrades, replacements, or repairs of this type.

Electrical wiring installed by non-licensed homeowners shall be for themselves, without compensation or pay from or to any other person for such labor or installation. Such installation by a homeowner shall comply with the requirements of this code, and said applicant in exercising this privilege shall not constitute or be considered as an electrical contractor. The applicant shall be required to demonstrate knowledge of code requirements, apply for and secure a permit, pay the required permit fees, and call for all inspections in the manner provided by this code. A non-licensed homeowner may obtain a permit for the inspection of equipment installed under an expired permit that had never been inspected only if the original installation was completed by the applicant of the expired permit. In instances where work was not completed by the original applicant, the homeowner must retain a licensed electrical contractor to obtain the necessary permit for inspection and ensure the installation is complete and complies with all electrical codes.

The Building Official may deny the issuance of electrical permits to non-licensed homeowners under any one of the following circumstances:

- (a) There is reason to believe the proposed electrical work will be done by someone other than the non-licensed homeowner;
- (b) There is reason to believe the property is or will be sold on the completion of the electrical work. For the purposes of this subsection (b) there is a rebuttable presumption that the property is or will be sold on the completion of the electrical work if the applicant, within the prior five years, has sold his or her home and the electrical work for said home was performed by the applicant under a homeowner permit.
- (c) Previous homeowner permits have not been completed in compliance with this code;
- (d) The homeowner is temporarily residing in the home.

If a non-licensed homeowner is found to have at any time violated or falsified any of the above items, they shall immediately cease all electrical work, forfeit the non-licensed permit, and secure the services of a registered electrical contractor to complete the electrical work in compliance with the code.

Required inspections may be requested on any regular business day. If the request cannot be accommodated, the inspector shall contact the applicant to reschedule the inspection. The applicant, if unable to be present during the normal working hours of a day, shall be required to supply a key or other means of access for the inspection to be performed.

9-405.170 Inspections, Conducted by Building Official.

The Building Official or an authorized representative are hereby authorized to make such inspections and take such action provided by law as may be necessary to enforce the provisions of this code.

9-405.180 Inspections, Required.

The installation, alteration, or addition to any electrical equipment for which a permit is required shall be subject to inspections and/or approval by the Building Official.

9-405.190 Inspections, Request for.

Inspections required under the provisions of this code shall be requested by the person, firm, corporation or authorized representative of the person holding the permit for such work. Such request shall be made in accordance with all procedures for inspection requests as established by the Department. All requests for inspection must include the permit number, electrical contractor or homeowner's name, address and suite number, if applicable, and means of access. Appointments for required inspections shall not be made with the exception that inspection requests may be scheduled for a given day. It shall be the duty of the person requesting inspection of electrical equipment to provide access to and a means for proper inspection of such equipment. The person requesting final inspection shall determine that the electrical equipment is operational before requesting such final inspection. In the event the electrical permit holder is intending for the owner of the property to request a final inspection, the permit holder shall provide the owner of the property with information on requesting a city inspection. The owner of the property shall have the duty of requesting the final inspection and providing access and a means for proper inspection.

9-405.195 Inspections, Procedures.

Pursuant to Section 9-405.170:

- (a) No portion of any electrical equipment intended to be concealed by any permanent portion of a building including thermal insulation shall be concealed until inspected and/or approved by the Building Official. When the installation, alteration, or addition to any electrical equipment is complete, a final inspection request shall be made. Failure of the permit holder to schedule and request such final inspection shall be reason for withholding the issuance of further permits.
- (b) When the Building Official finds an installation to not be in compliance with this code, the Building Official shall issue a correction order. The correction order shall be issued to the person, firm, or corporation holding the permit for the work. The order shall include a date when a final inspection shall be made. If required corrections have not been completed, or access to complete the inspection has not been provided, a re-inspection fee shall be levied and arrangements shall be made to complete the work. If at the time of final inspection the installation has not been brought into compliance, a disconnection order may be issued by the Building Inspector.
- (c) The requirements of this section shall not be considered to prohibit the temporary use of electrical energy for electric wiring, before final approval thereof when so authorized by the Building Official and with such restrictions upon such temporary use as may be necessary to ensure safety, secure compliance with all other provisions of this code, and facilitate inspection.
- (d) No temporary use of electrical energy shall be permitted in any case where a hazard to persons or property would be created.
- (e) A final inspection certificate of approval may, upon notice, be revoked by the Building Official if it is found that the electrical equipment fails in any respect to comply with the requirements of this code, or that the installation is unsafe to persons or property. Corrections not made and approved by the Building Official in the allotted time shall be

grounds for withholding further permits until corrections are made and approved by the Building Official.

9-405.200 Registration of City and State Electricians of All Classes.

- (a) No person, firm, or corporation shall install, alter, or add to any electrical equipment, except such installations as are described in Section 9-405.160 within the corporate limits of the City of Hickman and one mile thereof without first being registered to do so as hereinafter provided.
- (b) Persons holding State of Nebraska Electrical Contractor Licenses, Journeyman Electrician Licenses, Residential Journeyman Electrician Licenses, registered state apprentices, or State Fire Alarm Installer Licenses shall submit their state license or registration, and submit the insurance certificate herein required annually with the Building Official before performing any electrical work covered by this code. No electrical permits shall be issued to any state license holder until such license and insurance certificate are received and approved. Electrical licenses, except those mentioned above, will not be recognized by the City of Hickman as being in compliance with this code. City registrations of State licenses shall expire when the State license expires.
- (c) Automatic registration. Any State of Nebraska licensed electrical contractor, journeyman electrician, residential journeyman electrician, electrician's apprentice, or state fire alarm installer duly registered shall be automatically registered in the same classification under the provisions of this code.
- (d) A valid license of one or more of the classifications listed above shall be carried at all times while work is being executed. Any person checked and found to not be in possession of a valid registration or license shall be deemed in violation of this code, and shall immediately cease work and obtain said registration or license prior to engaging in further electrical installation.
- (e) Registered electrical contractors may employ or supervise, or provide journeyman or residential journeyman supervision for apprentice electricians at a ratio not to exceed three apprentice electricians to one licensee.

9-405.230 Classification of City Registrations.

The classes of registration are as follows:

- (a) An **electrical contractor** is hereby defined to be any person having the necessary qualifications, training, experience, and technical knowledge to properly plan, lay out, install, and supervise the installation of wiring, apparatus, and equipment for electric light, heat, power, and other purposes, with the full responsibility of supervision, whether doing such work themselves or employing journeyman electricians, residential journeyman electricians, and apprentices to assist them, and is licensed by the State of Nebraska Electrical Board.
- (b) A **journeyman** electrician is hereby defined to be any person having the necessary qualifications, training, experience, and technical knowledge to wire for or install electrical wiring, apparatus, and equipment and supervise apprentice electricians, and is licensed by the State of Nebraska Electrical Board.
- (c) A **residential journeyman electrician** is hereby defined to be any person having the necessary qualifications, training, experience, and technical knowledge to wire for or install electric wiring, apparatus, and equipment for residential installations and to supervise apprentice electricians, and who is licensed by the State of Nebraska Electrical Board. For

the purposes of this license the term residential shall mean installations for one, two, or multi-family dwellings not larger than three stories in height.

- (d) An **apprentice electrician** is hereby defined to be any person other than an electrical contractor, a journeyman electrician, or a residential journeyman electrician who, as such person's principal occupation, is engaged in learning and assisting in the installation, alteration, and repair of electrical equipment as an employee of an electrical contractor. Any apprentice electrician who shall install, alter, or repair electrical equipment other than under the direct supervision and control and in the immediate presence of a registered electrical contractor, journeyman electrician, or residential journeyman electrician shall be deemed in violation of the provisions of this code. Any electrical contractor, journeyman electrician, or residential journeyman electrician hereunder who shall permit or cause an apprentice electrician to install, alter, or repair electrical equipment other than as provided herein, shall be deemed in violation of the provisions of this code.
- (e) A **fire alarm installer** is hereby defined to be any person having the necessary qualifications, training, and experience to plan, lay out, and install electrical wiring, apparatus, and equipment for only those components of fire alarm systems that operate at fifty volts or less and who is licensed by the State of Nebraska Electrical Board. Conductors and equipment operating at a potential of greater than fifty volts shall be installed only by a registered electrician.

Only licenses issued by the State of Nebraska Electrical Board and defined herein shall be recognized in the City of Hickman. Anyone not obtaining a registration for these licenses prior to the commencement of any electrical work shall be deemed in violation of this code.

9-405.240 Renewal of Registration.

All registrations provided by this code shall be registered per the State of Nebraska Electrical Board requirements.

9-405.250 Registration to be Used Only by Holder.

Any registered electrician of any class herein provided who allows his or her name to be used by another person, firm, or corporation, directly or indirectly, either to obtain a permit, or to install, alter, or add to any electrical equipment shall be deemed in violation of this code.

9-405.260 Suspension or Revocation of Registration.

The Electrical Board, upon the recommendation of the Building Official and after conducting a hearing as herein provided, shall have the power to suspend or revoke the registration of any registered electrician hereunder if the same was obtained by error or fraud, or if the holder thereof is shown to be no longer qualified, or if such holder fails to comply with the provisions of this code. Where the Building Official has recommended suspension or revocation of an electrician's certificate of registration, the Building Official shall cause written notice to be served upon the registered electrician whose registration has been recommended for suspension or revocation, setting forth the time and place for a public hearing thereon. Such written notice shall be served by certified mail to the registrant's last known business address. At such hearing, the Electrical Board shall hear all parties concerned and afford them the following rights, among others:

- (a) To call and examine witnesses on any matter relevant to the issues of the hearing;
- (b) To introduce documentary and physical evidence;

- (c) To cross-examine opposing witnesses on any matter relevant to the issues of the hearing;
- (d) To rebut the evidence against him or her; and
- (e) To be represented by an attorney.

The Electrical Board shall then within a reasonable time after the hearing render a written decision, setting forth its findings and conclusions. In any instance where a registration is revoked or suspended, the holder of same shall not apply for a new registration until the reason or reasons for said revocation or suspension, as determined by the Electrical Board, have been corrected and the holder is once again qualified to be registered herein. Decisions of the Electrical Board are final unless appealed as provided by law.

9-405.270 Certificates of Insurance; State of Nebraska Electrical Contractor and Fire Alarm Installer.

Before any registered electrical contractor or fire alarm installer as defined herein may be issued a permit to install, alter, or add to electrical equipment hereunder, such electrical contractor or fire alarm installer shall be required to:

- (a) At all times maintain public liability insurance coverage for all claims arising out of all work in the City of Hickman and within one mile of the corporate limits thereof done by or under the supervision of the electrical contractor or fire alarm installer under the provisions of this code. Such insurance shall be in the form of a commercial or comprehensive general liability policy, or an acceptable substitute policy form as permitted by the City Attorney, with a minimum combined single limit of \$1,000,000.00 aggregate for any one occurrence on any job for which a permit is required under this code, provided the City of Hickman shall be named an additional insured thereunder. The coverages required herein shall be subject to review and approval by the City Attorney for conformance with the provisions of this section.
- (b) At all times keep on file with the Department a current certificate of insurance signed by a qualified agent of an insurance company licensed to do business in the State of Nebraska and approved by the City Attorney for conformance with the provisions of this section evidencing the existence of valid and effective policies of insurance naming the city as an additional insured for the coverage required by subsection (a) of this section, the limits of each policy, the policy number, the name of the insurer, the effective date and expiration date of each policy, the deductibles or self- insurance retainers of each policy, and a copy of an endorsement placed on each policy requiring thirty days' notice by mail to the Building Official before the insurer may cancel the policy for any reason, and, upon request of the Building Official or the City Attorney, a copy of any endorsements placed on such policies or the declarations page of such policies.

Separate certificates of insurance showing the electrical contractor or fire alarm installer to be covered under one policy and the city to be covered under another policy may be deposited in lieu of a single certificate, at the option of the electrical contractor or fire alarm installer. All certificates of insurance shall provide that in the event of expiration or cancellation of any of said minimum insurance requirements, the City of Hickman, Nebraska, shall be given at least thirty days advance written notice thereof. Any termination, reduction, or lapse of such insurance coverage shall automatically terminate the electrical contractor's or fire alarm installer's privilege to be issued permits under the provisions of this code, unless other insurance meeting the requirements of this section is provided and in full force and effect at the time of such expiration or cancellation.

9-405.290 Installation Standards and Approved Wiring Methods.

- (a) Approved metallic conduit, nonmetallic conduit, electric nonmetallic tubing, manufactured wiring systems specifically approved by the authority having jurisdiction, and approved wireway or cable tray shall be used in the installation of all electrical equipment in or on all other buildings, structures, tents, and premises than those enumerated in subsection (b) of this section. All wiring methods shall be electrically and mechanically continuous and shall incorporate a separate conductor for the purposes of equipment grounding. The above wiring methods shall also be acceptable for those occupancies listed in subsection (b) of this section. Flexible metal conduit may be used for fished-in connections, where flexibility or sound isolation is required and for extensions of approved raceway systems where their installation is not possible because of building requirements. Flexible metal conduit shall not be used as a general wiring method.

It is the intent of this section to require a substantial, approved raceway system in which conductors may be installed, excluding the low voltage portion of fire alarm systems. Those system shall be installed to comply with the requirements contained in the National Electrical Code.

- (b) Nonmetallic sheathed cable may be used for the installation of all concealed electrical equipment within the following buildings:
- (1) Single-family dwellings and associated outbuildings on the same property.
 - (2) Buildings now wired with metallic protected wiring which will be used in the future for dwelling purposes only.
 - (3) Multi-family dwellings (apartment houses) where each dwelling unit within such structure has individual distribution panels located in each unit; however, all feeders or subfeeders to each unit shall be installed in rigid metal conduit, intermediate metal conduit, electrical metallic tubing, or rigid nonmetallic conduit. Common areas such as hallways, house wiring and remotely located areas such as maintenance shops, and detached garages shall be wired with a conduit wiring method.

EXCEPTION: In existing structures only, service equipment and sub-panels may be located in a common area accessible to all occupants, provided individual dwelling unit home runs are routed in a raceway between the sub-panel and the unit.

A mounted or free standing microwave unit shall not be considered permanent provisions for cooking as required to meet the definition of dwelling unit.

The word “concealed” as used in this section shall mean protected from mechanical injury by being installed between or through holes bored in rafters, studding, floor joists, or being fished in the air voids in masonry walls or partitions of buildings.

- (c) Electrical Metallic Tubing (EMT) shall not be used for direct earth burial. Where metallic raceways are installed in direct earth contact they shall incorporate either PVC coating or asphaltum protection.
- (d) Branch circuit or feeder conductors No. 6 and smaller where installed within structures shall be copper.
- (e) Alternate energy sources:
- (1) Anyone seeking to install systems capable of co-generation or grid tie (interconnection) shall, prior to the installation of these systems, submit plans and specifications for such system to the Department and the interconnecting electric utility for review and approval.

- (2) For all other systems; plans and specifications need not be submitted prior to the installation of said equipment. Such installations shall be subject to all applicable requirements contained in this code.
- (f) For the purpose of conductor continuity, the phase, grounded, and grounding conductors shall not be dependent upon device connections such as lamp holders, receptacles, etc.
- (g) Fire separation between wiring methods in mixed occupancy structures shall be compliant with applicable building codes enforced by the Department.
- (h) Section 210.12 and Section 406.4(D) 4 of the 2017 National Electrical Code shall be enforced consistent with the requirements of the State of Nebraska's Electrical Division.

9-405.300 Services, Disconnects, Sub-feeders and Metering Requirements.

Service disconnecting means shall contain the proper overcurrent devices, connected in series with the service conductors to adequately protect all ungrounded conductors from overload. Approved service equipment consisting of fuses or circuit breakers installed in line-meter-fuse sequence shall be used on all installations requiring main fusing of 200 amperes or less and less than 250 volts nominal. The defined service point for underground residential single family services both temporary and permanent shall be the line side of the electric revenue meter socket. For overhead single family residential services both temporary and permanent the utility point shall be the utility connection at the service head.

The service disconnect shall be mounted as close to the point of service entrance as possible. Each building or occupancy within a building having a service rated 200 amperes or less shall have one main disconnect. When more than one service or main disconnect is provided, per building or multi-occupancy building, said services or disconnects shall be placed immediately adjacent to each other, unless otherwise specifically authorized by the Building Official, and shall be clearly labeled in a permanent manner as to their voltage characteristics and the area or portion of the building or premises that is being served by each disconnect. If located inside a building, and not mounted on the outside wall directly opposite the point of entrance, the service conductors shall be enclosed in conduit or raceway encased with two inches of concrete, four inches of brick, or eight inches of hollow block or tile from the point of entrance to the service disconnect enclosure.

Liquidtight flexible metal conduit, flexible metal conduit, service entrance cables, liquidtight flexible nonmetallic conduit, and electrical nonmetallic tubing shall not be used as the wiring method for the installation of service entrance conductors.

Service entrance conductors and panel sub-feeder conductors except the equipment ground shall all be the same size and have an ampacity in accordance with Article 310 of the National Electrical Code for the maximum rating of the overcurrent device(s) or service.

EXCEPTION: For single family dwellings where the service lateral conductors are not installed by a utility.

Main bonding jumpers and grounding electrode connections as a general rule shall be installed and made in the main service disconnecting means. In all cases, the bonding and grounding connections shall be accessible after installation is complete, except where specifically listed for the purpose. Connections shall not be made where a utility seal prevents the future maintenance and inspection of these terminations. In the case of multiple service disconnecting means listed and approved enclosures may be used for all grounding electrode connections and taps.

In general, electric revenue metering equipment shall be installed on the supply side of the service disconnect. Electric revenue meters on a building or structure shall be installed as per the serving utilities standards regarding heights and type of equipment used. Where the serving utility has no standard or regulation for this equipment, then all requirements contained in the National

Electrical Code shall be complied with. All nonmetallic conduits for underground services or feeders, whether used as a sleeve for protection or installed as a complete raceway, shall incorporate expansion fittings to prevent damage to service equipment.

Potential reference and instrument transformer wires installed between service equipment or CT cabinets and the meter socket may extend up to twenty feet within a structure without raceway concrete encasement, provided the raceway is of rigid metal conduit. Runs of conduit for unfused metering conductors exceeding twenty feet shall be installed below grade, or be encased in not less than two inches of concrete, four inches of brick, or eight inches of hollow block or tile.

A permit shall be obtained for repairs of existing services where the meter seal has been cut, the meter socket is unfastened from the structure, the service conduits have been damaged, or the service drop is disconnected. For replacement of existing electrical services where currently located within a bathroom area, the service shall not be required to be relocated provided the service equipment has proper clearances that comply with the National Electrical Code.

9-405.510 Code Coordination.

The electrical contractor shall become familiar with the requirements of other codes (such as the International Building Code, International Mechanical Code, International Fire Code, and their adoptive ordinances) enforced in this jurisdiction, the provisions of which apply to electrical installations.

9-405.520 Permit Fees.

Before a permit to install, alter, or add to electrical equipment shall be issued, a fee for such permit shall be paid to the Building Official as set by the Master Fee Schedule as amended. Said permit shall become valid for a period of one hundred and sixty days from the date of issuance, and remain valid as long as work on the project is not abandoned for a period in excess of one hundred and sixty days.

Where work for which a permit is required by this code is started prior to obtaining a permit, the fees hereinafter specified under Penalty: Working Without a Permit on the Master Fee Schedule; however, the payment of such fees shall not relieve any person, firm, or corporation from fully complying with the requirements of this code.

There shall be no refunds or credits given on any permit which has expired. All requests for refunds on permits shall be written to the City of Hickman.

COST OF APPEALS PROCEDURES - See section 9-405.120