

Secs. 26-357—26-399. Reserved.

ARTICLE IV. ELECTRICAL CODE

*Cross reference(s)--City electric light and power, § 118-476 et seq.; electric franchise, app. C.

Division 1. Generally

Sec. 26-400. Adoption of the National Electrical Code.

- (a) This article shall consist of the National Electrical Code, ~~2017~~ 2020 edition, published by the National Fire Protection Association, commonly known as and referred to in this article as the "National Electrical Code" or "NEC", a copy of which is on file in the office of the city clerk and which is incorporated by this reference in its entirety, except as otherwise indicated in this article.
- (b) This article and all provisions incorporated in this article, by reference or otherwise, shall be known as the electrical code. References to section numbers not preceded by "26-" will be to articles in the National Electrical Code.

(C00, § 26-400; 15,545, 15,632)

Sec. 26-401. Electrical permit required.

No person shall perform any electrical work nor install electrical equipment in or upon any building or property without first securing from the Permit and Development Center a permit therefore; nor shall any alteration or change be made in the wiring of any building, or in any electrical installation therein or thereon, either before or after inspection, nor shall any electric current be connected to any wires, or apparatus, without notifying the electrical inspector and securing a permit therefore. A separate permit shall be obtained for each building. A fee for each electrical permit shall be paid to the building official in the amount set in the schedule of fees adopted by the city council by resolution.

(C00, § 26-401; 15,545)

Sec. 26-402—26-404. Reserved.

Division 2. Deletions and Amendments

Sec. 26-405 Deletions.

The following are deleted from the NEC and are of no force or effect in this article:

- ~~(1) Article 210.12(D);~~
- ~~(2) Article 406.4(D)(4);~~
- ~~(1) Article 210.8 (F)~~

(C00, § 26-405; 15,545, 15,632)

Sec. 26-406. Amendments and additions.

- (a) The remaining sections in this article are and represent amendments and additions to the requirements contained in the National Electrical Code (NEC) and where their requirements conflict with those of the NEC the requirements of this article shall prevail.
- (b) The following sections of this article shall be construed in the context of the enumerated chapter of the NEC.

(C00, § 26-406; 15,545)

Sec. 26-407. Scope.

- (a) The provisions of this article shall apply to the following:
 - (1) The electrical conductors and equipment installed within or on public and private buildings and other premises.
 - (2) The conductors that connect the installations to a supply of electricity, and other outside conductors adjacent to the premises.
 - (3) Mobile homes.
- (b) Additions to, alterations of, and repairs to existing electrical equipment shall comply with the electrical code. Furthermore, existing electrical equipment that is temporarily exposed or made accessible because of any remodeling or repair of an existing structure, shall be made to comply with the electrical code. In any event, the building official may, when any additions, alterations, or repairs are made, order other reasonable additions or alterations in the electrical equipment of a structure or on any premises when a danger to life or property may result if such other additions or alterations were not made.
- (c) Installations which were in compliance with the electrical code in existence at the time such installations were made shall be presumed to be safe and proper, which presumption can be rebutted by evidence that the installation may be dangerous to life or property.
- (d) If the classification of a building has been changed due to a change in occupancy, the wiring in the entire building shall comply with all the electrical standards applicable to the new classification. If the occupancy of a building has been changed to a mixed occupancy, with the required fire separation between the mixed occupancy, each occupancy shall comply with its own particular classification and shall be wired in compliance with the electrical standards of its particular classification.
- (e) No permits are required for electrical wiring of 50 volts or less. Such systems shall comply with the NEC.
- (f) The provisions of sections 26-135 through 26-143 and 26-450 through 26-451, inclusive, of this article shall not apply in any respect to persons who are licensed by law to engage in the business of supplying and distributing electricity or the transmission of communication, when the person is installing, operating or maintaining electrical equipment or doing electrical work as an integral part of such business.
- (g) Whenever service entrances are altered or upgraded, residential structures shall be updated throughout to the requirements consistent with the electrical code in accordance with the

City of Des Moines Electrical Residential Update Requirements, as amended from time to time.

(C00, § 26-407; 15,545)

Sec. 26-408. Applicability to moved buildings.

Residential buildings or structures moved into or within the boundaries of the city shall comply with the electrical code in accordance with the City of Des Moines Electrical Residential Update Requirements, as amended from time to time.

(C00, § 26-408; 15,545)

Sec. 26-409. Service entrance requirements.

- (a) All service entrances in and upon buildings and structures within the city shall be of the class known as "rigid metal conduit (RMC), intermediate metallic conduit (IMC), or electrical metallic tubing (EMT)," except as provided in this section.
- (b) Underground service entrances for all buildings except in single-family, two-family, and row dwellings shall be of moisture resistant wire installed in rigid metal conduit or approved non-metallic raceway such as schedule ~~80~~ 40 polyvinylchloride (PVC) or its equivalent.
- (c) Other provisions of this section to the contrary notwithstanding, that portion of an underground service lateral that is installed by an electrical contractor, but is owned and maintained by a business licensed by law to engage in the business of supplying and distributing electricity, may be of a type used by such a business for such an installation.
- (d) All direct burial cable used by the utility company for the purpose of distributing electrical current within the city, shall be placed and located in the ground a minimum depth of 30" below the proposed final grade. No separation shall be required between electrical conductors and communications conductors when laid in a common trench.
- (e) Underground service entrance risers, to the meter, may be schedule 40 PVC, when not subject to physical damage.

(C00, § 26-409; 15,545, 15,632)

Sec. 26-410. Conformity with standards.

Conformity with standards established by any nationally recognized third-party testing and certification agency approved by the American National Standards Institute shall be evidence of conformity with approved standards for electrical equipment.

(C00, § 26-410; 15,545)

Sec. 26-411. Repealed by Ord. No. 15,632.

Sec. 26-412. Repealed by Ord. No. 15,632.

Secs. 26-411—26-449. Reserved.

Sec. 26-413. Ground Fault Circuit Interrupter Protection in Dwelling Units

Delete section 210.8(A) and insert in lieu thereof the following new section:

210.8(A) Dwelling Units.

All 125-volt receptacles installed in locations specified in 210.8(A)(1) through 210.8(A)(11) shall ground-fault circuit-interrupter protection for personnel.

(1) Bathrooms

(2) Garages and also accessory buildings that have a floor located at or below grade level not intended to be habitable rooms and limited to storage areas, work areas or similar use

(3) Outdoors

Exception to (3): Receptacles that are not readily accessible and are supplied branch circuit dedicated to electrical snow-melting, deicing, or pipeline and vessel heating equipment shall be permitted to be installed in accordance with 426.28 or 427.22, as applicable.

(4) Crawl spaces – at or below grade level

(5) Basements

Exception to (5): A receptacle supplying only a permanently installed fire alarm or burglar alarm system shall not be required to have ground-fault circuit-interrupter protection.

Informational Note: See 760.41B and 760.121(B) for power supply requirements for fire alarm systems.

Receptacles installed under the exception to 210.8(A)(5) shall not be considered as meeting the requirements of 210.52(G)

(6) Kitchens – where the receptacles are installed to serve the countertop surfaces

(7) Sinks – where receptacles are installed within 1.8 m (6 ft) from the top inside edge of the bowl of the sink

(8) Boathouses

(9) Bathtubs or shower stalls – where receptacles are installed within 1.8 m (6 ft) of the outside edge of the bathtub or shower stall

(10) Laundry areas

Exception to (1) through (3), (5) through (8), and (10): Listed locking support and mounting receptacles utilized in combination with compatible attachment fittings installed for the purpose of serving a ceiling luminaire or ceiling fan shall not be required to be ground-fault circuit-interrupter protected. If a general-purpose convenience receptacle is integral to the ceiling luminaire or ceiling fan, GFCI protection shall be provided.

(11) Indoor damp and wet locations

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Division 3. Licenses

Sec. 26-450. Electrical contractor's license.

- (a) Except as provided in section 26-452, only those individuals or business entities holding an electrical contractor license as recognized in this section may apply for and obtain permits to conduct electrical work in the city.
- (b) Any person, firm or business engaged in, or which presents itself as engaging in any electrical systems activity or business within the city, shall present for copying by the

building official, all licenses issued by the electrical examining board to any of its workers or employees prior to such workers or employees engaging in such work within the city.

- (c) No new electrical contractor licenses shall be issued by the city.
- (d) Except as otherwise provided in this chapter, no person, firm or business shall engage in, or present itself as engaging in any electrical work or business regulated by article IV of this chapter unless it is one of the following:
 - (1) An electrical contractor licensed as such by the Iowa electrical examining board and is, or employs, a class A master electrician licensed as such by such board.
 - (2) A residential electrical contractor licensed as such by the Iowa electrical examining board and is, or employs, a residential master electrician licensed as such by such board.
- (e) Residential electrical contractors shall be limited to residential electrical work. Residential electrical work is defined as electrical work in buildings that contain no uses other than residential dwellings, no more than four dwelling units; and work within accessory structures, which are located on the same parcel as the dwelling unit or units, are no greater than 3,000 square feet in floor area, not more than two stories in height, the use of which is not commercial in nature, and is incidental to the use of the dwelling unit or units. For the purpose of this definition, fire walls and property lines will not be considered to create separate buildings when those buildings are attached. Buildings will only be considered separate for purposes of this section when detached.

(C00, § 26-450; 15,545)

Sec. 26-451. Master, journeyman, and apprentice licenses.

Except as provided in section 26-452 or as otherwise specifically allowed by this chapter, no person shall work in the electrical trades or perform any work regulated by article IV of this chapter without a license recognized by this chapter.

- (1) Those persons working in the electrical trades who have been issued a license, exclusive of class B licenses, by the Iowa electrical examining board pursuant to Iowa Code chapter 103, shall be recognized as licensed and eligible to work in the city within the scope of activities authorized by such licenses.
- (2) Those persons working in the electrical trades who have been issued a class B license by the Iowa electrical examining board pursuant to Iowa Code chapter 103, shall be recognized as licensed and eligible to work in the city within the scope of activities authorized by such licenses only if they previously held a comparable electrical license issued by the City.
- (3) A master electrician may not be listed as the master electrician of record for more than one electrical contractor at one time.

(C00, § 26-451; 15,545, 15,632)

Sec. 26-452. Exemptions from licensing requirements.

The provisions of sections 26-450 and 26-451 shall not apply to the following:

- (1) The electrical work of a public utility company, telephone, or telegraph company, nor the persons performing electrical work for such companies, if that electrical work is an integral part of the plant used by such public utility company or telephone or telegraph company in rendering its duly authorized service to the public.
- (2) A regular employee of any railroad who does electrical work only as part of that employment.
- (3) The connection or disconnection of any heating, ventilation, air conditioning, or refrigeration equipment by any person who is licensed as a journeyman or master in HVAC or refrigeration under the provisions of article V of this chapter of the City Code, provided that such connection or disconnection shall include electrical work only on electrical equipment that is part of any heating, ventilation, air conditioning, or refrigeration equipment. This work shall include the connection or disconnection of any heating, ventilation, air conditioning, or refrigeration equipment to an existing individual branch circuit.
- (4) Routine maintenance performed by a city employee, county employee, or employee of any political subdivision of the state. Routine maintenance means the repair or replacement of existing electrical apparatus or equipment, including but not limited to wires, cables, switches, receptacles, outlets, fuses, circuit breakers, and fixtures, of the same size and type for which no changes in wiring are made, but does not include any new electrical installation or the expansion or extension of any circuit.
- (5) The work performed on traffic signals or streetlights by an employee of a contractor qualified according to the standard specifications of the state department of transportation and acting pursuant to a contract of the city or the state that is included in a jointly approved project agreement.
- (6) In cases in which an owner-occupant of an existing single family dwelling desires to conduct work on electrical systems in the owner-occupant's single family dwelling the owner-occupant may appear before the respective discipline inspector to demonstrate that he or she is competent to do the specific work to be accomplished, and after successful demonstration of competence as determined by the inspector, may obtain the permit(s) by paying the proper fee. For purposes of this section a single family dwelling unit shall mean a detached residence designed for or occupied by one family only which is the primary residence of the owner-occupant with record of homestead and qualifies for the homestead tax exemption. Electrical service work must be completed by an electrical contractor licensed in accordance with section 26-450.
- (7) Or any other provision contained within Iowa Code section 103.22

(C00, § 26-452; 15,545, 15,632)

Secs. 26-453--26-499. Reserved.