

Title 8

ELECTRICAL CODE

8-1-8 Electrical Code

A certain document, three (3) copies of which are on file in the office of the city clerk of the City of Warrenville; being marked and designated as the 2014 edition of NFPA 70, *National Electrical Code*, as published by the National Fire Protection Association®, shall be, and the same is hereby adopted as the electrical code of the City of Warrenville in the State of Illinois, regulating and governing the design, construction, quality of materials, erection, installation, alteration, repair, relocation, replacement, addition to, use or maintenance of electrical systems and equipment as herein provided; and each and all of the regulations, provisions, penalties, conditions and terms of said 2014 edition of NFPA 70, *National Electrical Code* are hereby referred to, adopted and made a part hereof as if fully set out in this chapter, with the additions, insertions, deletions and changes, if any, prescribed in section 8-1-8-1 of this chapter.

8-1-8-1 Amendments to the Electrical Code

The following sections of the 2014 edition of the National Electrical Code are hereby amended and revised as follows:

Article 110.12 (C) EMT Required. In new or remodeling residential construction with access to wall or ceiling cavities, conductors shall be installed completely in EMT.

Exception: short lengths of flexible metal conduit where approved by the Code Official.

Article 110.12 (D) Low Voltage Wiring in Raceway. All exterior low voltage wiring for commercial HVAC equipment shall be installed in an approved *raceway*.

Article 110.12 (E) Unused Wiring. All unused wiring, including low voltage, shall be removed back to the source of power or last utilized electrical device on the circuit.

Table 210.21 (B)(3) Receptacle Ratings. Delete “15 or 20” in Receptacle Rating column and replace with “20”.

Article 230.43 Wiring Methods. Delete methods (1) through (19) and replace as follows; Service entrance conductors are to be installed in rigid metal conduit, intermediate metal conduit, or PVC. PVC allowed for underground use only and must comply with article 352.10(G) as amended in 8-1-8-1 of the Warrenville municipal code.

Article 230.70(A)(1) Service Equipment Disconnect. Delete and replace this section as follows: The service disconnecting means shall be installed in a *readily accessible* location at the utility meter or at a point not more than five feet from the utility meter.

Article 250.87 Grounding conductor underground raceways. Raceways installed in or under a slab or underground, with the exception of service entrance raceways, shall require a separate equipment grounding conductor.

Article 300.13 (B) Device Removal. Delete and replace as follows: Conductors shall not be dependent device connections such as lamp-holders, receptacles, and so forth, where removal

would interrupt the continuity. Conductor shall be looped or have a pigtail wiring connection to the device.

Article 300.13(C) Device Connection. Conductors terminated at receptacles or switches shall be under the screw of the device per the manufacturer's directions. Use of pressure connectors (backstabbing) shall not be permitted.

Article 310.4 Conductors. All conductors for wiring shall be copper. Use of aluminum and copper clad conductors for wiring are prohibited.

Article 310.5 Minimum Conductor Size. All commercial and industrial work shall use minimum #12 AWG conductors.

Exception: control wiring.

Article 314.23 (B)(1) Mounting Boxes to Structural Framing. Delete portion stating "or they shall pass through the interior within 6mm (1/4 in.) of the back or ends of the enclosure". And insert: All enclosures mounted to framing members shall be equipped with approved brackets for mounting to framing members.

Article 320 Armored Cable Type AC. Delete this article.

Article 322 Flat Cable Assemblies Type FC. Delete this article.

Article 324 Flat Conductor Cable Type FCC. Delete this article.

Article 326 Integrated Gas Spacer Cable Type IGS. Delete this article.

Article 328 Medium Voltage Cable Type MV. Delete this article.

Article 330.10(A) Type MC Uses Permitted. Delete and replace as follows: Metal-Clad Cable Type MC cable is only to be used with lay-in type fixtures and recessed lighting fixtures in lengths not to exceed 6 feet of the total raceway.

Article 334 Nonmetallic Sheathed Cable Types NM, NMC, NMS, NM-B. Delete this article.

Article 338 Service Entrance Cable Types SE and USE. Delete this article.

Article 348.12 Flexible Metal Conduit, Uses Not Permitted. Add: (8) Outdoors

Article 352.10 (G) PVC Underground Installations. Delete sentence "See 300.5 and 300.50" and replace as follows: PVC shall not be permitted to emerge from concrete, earth, or other solid surface. Any portion of the raceway emerging from concrete or earth shall be installed in ridged metal conduit to a point not less than 18 inches above and below the emergence.

Article 356 Liquid Tight Flexible Nonmetallic Conduit. Delete this article.

Article 358.10 (B) Type EMT. Delete in its entirety.

Article 358.12 (7) Type EMT. In concrete or in direct contact with earth or exterior installations.

Article 362 Electrical Nonmetallic Tubing Type ENT. Deleted, use of electrical nonmetallic tubing is not permitted.

Article 382 Nonmetallic Extensions. Delete this article.

Article 388 Surface Nonmetallic Raceways. Delete this article.

Article 394 Concealed Knob and Tubing Wiring. Delete this article.

Article 396 Messenger Supported Wiring. Delete this article.

Article 398 Open Wiring on Insulators. Delete this article.

Article 408.54.1 Use of Tandem type overcurrent devices. Where tandem, duplex, or similar overcurrent devices are use in a service panel, proof shall be provided to the Code Official that circuits are properly balanced. Proof shall be provided in a written form using a panel schedule, by a registered or licensed electrician.

Article 604.4 Manufactured Wiring Systems. Delete exceptions, manufactured wiring shall not be allowed in any concealed location as defined in Article 100 or outdoor locations.

Article 604.6 (A)(3) Flexible Cord. Delete this section in its entirety.

Article 605.6 Lighting Accessories. Add following subsection after (C); **(D) Task Lighting.** Task lighting for office furnishing shall be individually fused.

8-1-8-2Electrical Contractor Registration

A. Definition: The term "electrical contractor" as used in this section means any person, firm or corporation engaged in the business of installing or altering by contract or otherwise, electrical equipment for the utilization of electricity supplied for light, heat or power, not including radio apparatus or equipment for wireless reception of sounds and signals, and not including apparatus, conductors and other equipment installed for or by public utilities, including common carrier, which are under the jurisdiction of the Illinois Commerce Commission for use in their operation as public utilities; but the term "electrical contractor" does not include employees by such contractor to do or supervise such work.

B. Registration: Within the corporate limits of the city, it shall be unlawful for any person to engage in the business of "electrical contractor" as defined in this section without being registered as an electrical contractor with the city in the manner hereafter set forth; electrical contractors shall be required to register with the Department of Community Development and shall post bond as required by section 8-3-1 of this chapter.

C. Application: Applicant's Qualifications: Any person desiring to engage in the business of electrical contractor shall apply for registration to the Chief Code Official, it being understood that any person or representative making application for registration shall produce proof of passing an electrical contractor exam through an approved Illinois municipality or through the International Code Council.

D. Affidavit to accompany application: Each person applying for registration as an electrical contractor shall file with the application to the chief code official, an affidavit setting forth that the applicant, if an individual, or at least one member of the corporation, if the applicant is a corporation, has a thorough knowledge of the provisions of this chapter and all ordinances of the city relative to electricity.

E. False statements made by applicant: In case any statements made by a person seeking registration as an electrical contractor shall, after examination by the chief code official, be found to be untrue, the application for registration shall immediately become null and void.

G. Fee, payable in advance, not prorated: The fee for registration as an electrical contractor shall be in the amount stated in 8-3-1, per annum or any portion thereof, which sum shall be paid by the applicant to the Community Development Director in advance, upon filing the application for registration with the Chief Code Official.

H. Registration Certificate:

1. **Registration requirements.** All contracted electrical work shall be performed by a licensed/registered and bonded electrician who is also registered with the City of Warrenville. The electrical license must be one which was acquired by passing a written electrical examination offered by an approved municipality or a national contractor/trades journeyman or higher electrician certification by the International Code Council©. The electrician/s shall provide a legible copy of their electrical license, to the building division, with the application for registration.
2. **Issuance.** Upon the filing of the application for registration in the proper form and the payment of the registration fee, the Community Development Director shall register the applicant as an electrical contractor, and shall issue to the applicant a certificate of registration which shall authorize the applicant to engage in such business for the year in which it is issued.
3. **Expiration.** The certificate of registration shall expire on December 31 of the year in which it is issued.
4. **Registration revocable.** The Chief Code Official may seek to have a registrant's certificate of registration revoked for one or more violations of any of the rules or regulations pertaining to electrical installation during the annual license period. The Chief Code Official shall file charges with the Electrical Commission, and a hearing shall be scheduled within ten (10) days thereof. Notice of the hearing shall be given to the registrant no less than five (5) days prior to the hearing.
If the Electrical Commission determines that the registrant's certificate should be revoked, the registrant's certificate shall be immediately suspended pending a final decision by the City Council. The City Council shall review all decisions of the Electrical Commission revoking certificates and shall render a final decision thereon.
5. **Display.** The registration certificate shall be kept conspicuously in view in the business place of the registrant.
6. **Nontransferable.** No certificate of registration will be transferable.
7. **Records.** The Community Development Director shall keep a suitable record of registration of electrical contractors.

8-1-8-3 Electrical Commission

A. Commission Created. There is hereby established an electrical commission consisting of six (6) members as follows: the chief electrical inspector shall be a member and ex officio chairman of the commission; of the other five (5), one shall be a registered professional engineer, one an electrical contractor, one a journeyman electrician, one a representative of the fire prevention bureau, and one representative of an electricity supply company shall be members of the commission. If there be no person, willing and able to serve who is qualified under any one of these descriptions, the mayor may appoint some other person to fill that position. All members of the commission shall be appointed by the mayor with the advice and consent of the city council.

B. Responsibilities. The electrical commission shall recommend to the city council:

1. Safe and practical standards and specifications for the installation, alteration and use of electrical equipment designed to meet the necessities and conditions of the locality.
2. Reasonable rules and regulations governing the issuance of permits by the building division.
3. Review of codes, policies, and procedures pertaining to electrical codes and ordinances for the City of Warrentville.