



Legislation Details (With Text)

File #: O-27-23 **Version:** 1 **Name:**

Type: Ordinance **Status:** Adopted

File created: 8/22/2023 **In control:** City Council

On agenda: 12/11/2023 **Final action:** 12/11/2023

Title: City of Annapolis Electrical Code Update - For the purpose of updating the City of Annapolis electrical code to current National Electric Code standards as published by the National Fire Protection Association, 2020 Edition, and the National Electrical Safety Code, 2023 Edition; and generally related to the city's electrical code.

Sponsors: Brooks Schandelmeier, Elly Tierney, Dajuan K. Gay

Indexes: Economic Matters Committee

Code sections:

Attachments: 1. O-27-23 First Reader, 2. O-27-23 Staff Report, 3. O-27-23 Fiscal Impact Note, 4. O-27-23 signed (b&w), 5. O-27-23 Signed (color)

Date	Ver.	Action By	Action	Result
12/11/2023	1	City Council	adopt on second reader	Pass
12/11/2023	1	City Council	adopt on third reader	Pass
12/11/2023	1	City Council	Cosponsor added	
12/6/2023	1	Economic Matters Committee	recommend favorably	Pass
10/9/2023	1	City Council	declare the public hearing closed	
9/26/2023	1	City Council	adopt on first reader	Pass
9/26/2023	1	City Council	refer	

City of Annapolis Electrical Code Update - For the purpose of updating the City of Annapolis electrical code to current National Electric Code standards as published by the National Fire Protection Association, 2020 Edition, and the National Electrical Safety Code, 2023 Edition; and generally related to the city's electrical code.

**CITY COUNCIL OF THE
City of Annapolis**

Ordinance 27-23

**Introduced by: Alderman Schandelmeier
Co-sponsored by: Alds. Tierney, Gay**

Referred to:
Economic Matters Committee

AN ORDINANCE concerning

City of Annapolis Electrical Code Update

FOR the purpose of updating the City of Annapolis electrical code to current National Electric Code standards as published by the National Fire Protection Association, 2020 Edition, and the National Electrical Safety Code, 2023 Edition; and generally related to the city's electrical code.

BY repealing and reenacting with amendments the following portions of the Code of the City of Annapolis, 2023 Edition
17.16

SECTION I: BE IT ESTABLISHED AND ORDAINED BY THE ANNAPOLIS CITY COUNCIL that the Code of the City of Annapolis shall be amended to read as follows:

Title 17 - BUILDINGS AND CONSTRUCTION
Chapter 17.16 - Electrical Code

Section 17.16.010 - National Electrical Code adopted.

The National Electrical Code, 2014~~20~~ Edition, published by the National Fire Protection Association (NFPA #70), a copy of which is on file, is adopted as the Electrical Code of the City of Annapolis with the following amendments:

- A. ~~Insert the following new sections:~~ Section 110.12(~~C~~**D**) Abandoned Cables. The accessible portions of abandoned cables, conduits, and raceways shall be removed.
- B. ~~Insert the following new sections:~~

~~300.3(E) No aluminum conductors or copper-clad aluminum conductors smaller than number six A.W.G. shall be installed in any installations.~~

~~Strike section 310.3(A) Minimum Size of Conductors. The minimum size of conductors for voltage ratings up to and including 2000 volts shall be 14 AWG copper or 12 AWG aluminum or copper-clad aluminum, except as permitted elsewhere in this code.~~ **Insert 6 AWG aluminum or copper clad-aluminum.**

- C. 1. Strike section 394.10 of the National Electrical Code and insert the following: 394.10 Uses Permitted: Existing concealed knob-and-tube wiring shall be permitted to remain in use unless the authority having jurisdiction deems the wiring unsafe.
- 2. Strike section 394.12 and insert the following: 394.12 Uses Not Permitted. Concealed knob-and-tube wiring shall not be installed, modified or extended for all new or existing uses, under new work, remodel, renovations, alterations and additions.
- D. Section 408.59 Switchboards of one thousand amperes or larger. Switchboards having a capacity of one thousand amperes or larger shall receive periodic cleaning and preventative maintenance minimum every five years to minimize the possibility of fire or catastrophic failure. Cleaning and maintenance schedule includes coordination of shut down with the utility company and shall include the following requirements:
 - 1. Vacuum entire interior of switchboard or gear;
 - 2. Clean bussbars and contacts with suitable nonconductive solvent;
 - 3. Lubricate all moving mechanisms;
 - 4. Check conductors for abrasions;

5. Torque bussbars and conductors connections to manufacturer recommended specifications;
6. Replace worn, damaged or deteriorating components;
7. Submit report of preventive maintenance performed to electrical inspector within thirty days.

Prior to the issuance of a preventative maintenance electrical permit the licensed electrician shall receive a preventative maintenance summary of requirements on forms established by the Department of Planning and Zoning which shall be completed and returned for approval.

Fees. A fee as established by resolution of the City Council shall apply to a preventative maintenance electrical permit.

Violation-Penalty. A person who violates this section is subject to penalties established under Section 17.16.110.

- E. Strike section 410.36(B) and insert the following: 410.36(B) Suspended ceilings. All lay in light fixtures will require independent suspension to insure that the fixture will not drop more than nominally two or three inches when the framing members no longer provide the support. The minimum wire size shall be 12# S.W.G. firmly secured to the building structure and the light fixture. All two by four foot (2' x 4') lay in fixture and two by four foot (2' x 4') lay in fixtures shall be supported at opposite corners. Recess lighting and exit lighting shall have at least one support wire installed.

- F. Insert the following new section:

~~555.19(A)(5) Voltage. Shore power receptacles shall not be supplied by voltages other than 120/240 volt single phase service types for line to line loads.~~

Insert 555.5 (A) Minimum Voltage. Shore power receptacles, minimum voltage, 120/240 volt single phase service type for line to line loads.

Insert at the end of 555-34(A)(3) Exception for the City of Annapolis lease to The United States Yacht Shows.

- G. Insert the following new section:

~~760.46 Exception No. 3 NFPLFA cables installed exposed or concealed behind accessible suspended ceilings. Cable shall not be installed, exposed, or concealed behind accessible suspended ceilings unless they are installed in listed raceways or conduits that provide physical protection to the conductors.~~

~~—Strike section 760-53 (A)1,2,~~

Insert 760.53 (A) 1: NFPL cable shall not be installed exposed or concealed behind accessible suspended ceilings unless they are installed in listed raceways or conduits that provide physical protection to the conductors. Cable splices or terminations shall be installed in listed boxes or fittings.

- H. Strike section 760.130(B)(1)and(B)(2) [and] insert the following new sections:

~~760.130(B)(1) Cable splices or terminations shall be made in listed boxes or enclosures. PLFA cables shall not be installed, exposed, or concealed behind accessible suspended ceilings unless they are installed in listed raceways or conduits that provide physical protection to the conductors.;~~

760.53 (A) 1: PLFA cable shall not be installed exposed or concealed behind accessible suspended ceilings

unless they are installed in listed raceways or conduits that provide physical protection to the conductors. Cable splices or terminations shall be installed in listed boxes or fittings.

I. Strike section 680.26 (2)(b)(1),(2),(3),(4),and(5) Revised 7-10-2023 ccp

17.16.015 National Electrical Safety Code adopted.

The National Electrical Safety Code, 2014~~23~~ Edition, published by the IEEE, a copy of which is on file in the Department of Planning and Zoning, is adopted as the Electrical Safety Code of the City of Annapolis.

17.16.020 Applicability.

This chapter applies to all electrical equipment and the installation of electrical equipment for light, heat or power within or upon public or private buildings, structures or premises, alteration to existing installations of electric wiring or equipment, including yards, carnivals and parking lots, and industrial substations, and all electrical equipment, and the installation of the equipment, used for power supply to radio and television transmitting and receiving systems in or upon the buildings, structures or premises. This chapter does not apply to the following:

- A. Employees or agents of electric light and power companies, electric railway companies or telegraph or telephone companies, while performing work on such companies' own buildings, plants, installations or systems;
- B. Employees of the State or the United States Government, while performing work on State or Federal buildings, plants, installations or systems;
- C. Persons making electrical installations in ships, boats, automobiles, trucks or other vehicles, other than trailers being used for residential or office use, or repairing any equipment installed upon or in any of them;
- D. Persons who perform any of the work mentioned or enumerated in this section as an apprentice, journeyman or helper under the direction and supervision of a master electrician or restricted electrician, whichever is applicable, licensed under the laws of the City of Annapolis. The work performed shall be the responsibility of the licensee.

17.16.025 Definitions.

The following words, terms, and phrases, when used in this title shall have the meanings ascribed to them in this section, unless the context clearly indicates another different meaning or intent:

- A. "Electrical contractor" means a person ~~licensed~~**registered** in the City of Annapolis to engage in the business of contracting to perform electrical work.
- B. "Electrical contractor limited" means a person licensed to engage in the business of contracting to perform electrical work of a limited type (such as, but not limited to, burglar and holdup alarm, communications, elevators, gas pumps, heating and air conditioning, remote control, signaling, signs or X-rays).
- C. "Electrical work" means the installation, erection or repair of:
 - 1. Electrical wires, conductors, or fiber optic cables to be used for the transmission of

- electric power or light for communications, electrical lighting, heating or other power consuming purposes;
2. Moldings, ducts, raceways or other conduits for the reception or protection of such wires or conductors;
 3. Any electrical machinery, fixed appliance or other device, fixture or associated hardware to be used for communication, light, heat or other power consuming purpose if directly connected to the power supply by a permanent connection.
- D. "Master electrician" means an individual licensed under this title who personally supervises, directs, and can perform electrical work of all types.
- E. "Master electrician limited" means a person licensed under this title who personally supervises, directs, and can perform electrical work of a limited type (such as, but not limited to, burglar and holdup alarms, communications).
- F. "Restricted electrician" means all persons who are qualified only to repair or to provide maintenance service to the electrical components of specific devices which utilize electrical current for their operation. A restricted electrician shall be limited to performing electrical repair and maintenance work upon a specific type of device and the circuit pertaining to that specific device. Such licensee shall not be privileged to perform electrical wiring unless a fuse holder for the specific device is available in the main electrical service or provided by a master electrician. Under no conditions shall such licensee connect the specific device if an overload will develop in the main electrical service. Some examples of this type of work are, but not limited to: elevator, gas pumps, heating and air conditioning, signs or x-ray equipment.

17.16.030 Electrical permit-Required.

- A. Except as provided otherwise in this chapter, no person shall make any installation of electrical equipment or perform any electrical work which is subject to this chapter without first obtaining a permit from the Department of Planning and Zoning. No permit shall be required to repair portable electrical equipment or lighting fixtures, or to repair or replace sockets, receptacles or snap switches, or to make other minor repairs at existing outlets, or to repair motors, or to replace motors with motors of the same horsepower rating.
- B. All applications for permits shall be submitted in writing on forms prescribed by the Director of Planning and Zoning or his or her designee and shall be signed by a currently ~~licensed~~ **registered** master electrician, master electrician limited, or restricted electrician of record.
- C. An electrical permit is void unless work for which the permit has been issued is commenced within a period of ninety days after issuance or if the authorized works is suspended or abandoned for a period of six months after the time of commencing the work. The maximum duration of an electrical permit is two years from the issue date, except if related to a building permit the electrical permit shall expire on expiration of the building permit unless specified otherwise.
- D. The Director or his or her designee may renew an electrical permit for an additional one hundred twenty-day period if the applicant:
1. Makes written request for the renewal prior to the expiration of the first one hundred twenty-day period; and
 2. Provides written justification, satisfactory to the Director or his or her designee, that work could

not be commenced within the initial one hundred twenty-day period because of circumstances beyond the control of the applicant.

- E. Suspension, Revocation of Permit and Withholding Applications. The Director or his or her designee may withhold permit application, future inspections or may suspend or revoke any electrical permits for any irregularities in installation, for unsafe or unworkmanlike installation, for failure to obtain required inspections or for any violations of the Electrical Code and this chapter.
- F. Issued permits are not transferable for any reason.

17.16.040 Electrical permit and inspection fees.

All fees are payable in full at the time of issuance of the permit. All fees are nonrefundable.

- A. Permit fees as established by resolution of the City Council shall apply to new construction only.
- B. Permit fees as established by resolution of the City Council shall apply to additions, alterations or repairs to existing structures or services.
- C. Permit fees as established by resolution of the City Council shall apply to all other work and conditions in addition to Subsections A and B.
 - 1. **Reinspection Fee.** A fee as established by resolution of the City Council must be paid before another inspection is made if, for the original inspection, one or more of the following occurred:
 - a. Requesting party called for inspection, but work was not ready;
 - b. Requesting party was not on site;
 - c. Building was locked;
 - d. Safety features not on site;
 - e. Approved drawings not on site;
 - f. Permit card not posted and visible from fronting street.
 - 2. **Failure to Notify.** There shall be a fee as established by resolution of the City Council charged whenever the licensee fails to notify the Department within the prescribed time that the work authorized by this subtitle is complete.
 - 3. **Investigation Fee.** Whenever any work for which a permit is required under this code has been commenced without authorization of such permit, a special investigation shall be made before a permit may be issued for such work. In addition to the regular permit fee or any penalty fees, an investigation fee as established by resolution of the City Council shall be collected.

17.16.050 Standards.

- A. **Electric Installation Standards.** Conformance of installation of electric conductors and equipment to 2012~~23~~ Edition of the National Electrical Safety Code and the 2011~~20~~ National Electrical Code (NFPA 70) shall be the prima facie evidence that such installations are reasonably safe for use in the service intended and in compliance with the provisions of this Code.
- B. **Electric Equipment Standards.** The materials, appliances, and other equipment listed in published reports of inspected electrical equipment by the Underwriters Laboratories, Inc. (UL), and other nationally

recognized testing laboratories, and installed in accordance with any instructions included as part of such listing, shall be approved as meeting the requirements of this Code.

- C. **Clearances.** It shall be the responsibility of the property owner or the owners' authorized agent to coordinate with all overhead utility companies prior to construction to certify that the proposed building or structure adjacent to any overhead high voltage electric lines will not violate the National Electrical Safety Code Standards on clearances of conductors.

17.16.060 Plans and specifications.

- A. **General.** Plans, specifications and schedules in sufficient detail shall be filed with the Code Official showing the location and capacity of all lighting facilities, electrically operated equipment and electrical circuits required for all service equipment of the buildings or structure except as modified by the Code Official.
- B. **Items Covered.** All electrically controlled devices, including signal, communicating and lighting systems and their wiring, whenever required under the provisions of this code shall be shown on the plans and elevations of the building or structure with respect to those uses covered by the following:
1. Lighting;
 2. Exit and emergency lighting;
 3. Service equipment;
 4. Electrical equipment and control of heating, refrigeration, and ventilating machinery and devices;
 5. Fire alarm and signal systems. Fire alarm signal systems, Fire Department communication and supervisory service;
 6. Construction operations. Temporary construction lighting requirement equivalent to a minimum of three foot candles (32.29 LUX);
 7. Signs and, Towers, and Poles. Wiring of a display sign;
 8. Elevators and moving stairways. Power control electric operation and circuit wiring of elevators and escalators.

17.16.080 Temporary use.

Permission. The Code Official is authorized to give temporary permission for a reasonable time to supply and use current in part of an electric installation before such installation has been fully completed and the final certificate of approval has been issued. The part covered by the temporary certificate shall comply with all the requirements specified for temporary lighting, heat or power in the 2011-20 National Electrical Code (NFPA #70).

17.16.090 Existing installations.

- A. **General.** Alterations shall not be made to any existing installations of electric wiring or equipment for which a permit is required within or on any building, structure or premises, without first securing the

approval and a permit from the Code Official.

- B. **Defective Wiring.** If, upon inspection, an electric wiring system is found defective and unsafe, the Code Official shall revoke all certificates and permits in effect. Use of such system shall be discontinued until it has been made to conform to this chapter and after a new permit has been issued.
- C. **Additional Loads.** When additional electrical loads are to be connected to existing service in buildings or structures, the existing load shall be established as not less than the actual maximum demand figures. New loads shall be computed in accordance with the requirements of the National Electrical Code (NFPA #70).
- D. **Safety.** In the interest of safety, the Code Official may inspect any existing building, dwelling, structure or equipment as required at any time even if no electrical work or changes are proposed.

17.16.100 Emergency electrical systems.

- A. **General.** Emergency electrical systems are those systems required to automatically supply power for illumination and equipment in the event of failure of the normal power supply. The emergency electrical system shall conform to NFPA 70, National Electrical Code, except as otherwise provided herein. The systems shall pickup their connected loads within ten seconds after failure of the normal power supply and shall operate under all weather conditions.
- B. In buildings with a gross occupant load in excess of ~~five hundred~~400 persons, and that contain one or more of the following, shall be required to have an emergency electrical system installed according to the requirements of the NFPA 70, National Electrical Code:
 - 1. Electrically driven fire pumps;
 - 2. Smoke evacuation or smoke management systems.
- C. **Capacity.** The emergency systems shall have the capacity to operate equipment such as egress lighting, fire pumps, smoke control systems, and any other emergency systems and equipment as required by other applicable codes.
- D. **Power Source.** The emergency electrical system shall not be connected to a standby power system unless the load pickup time complies with Subsection A, General, and the standby system is sized for the additional load.

17.16.110 Electrical Code violation.

- A. A person who violates any section of this chapter or who commences any electrical installations or performs any electrical work without prior receipt of a required electrical permit is guilty of a municipal infraction and is subject to a fine as established by resolution of the City Council.
- B. Electrical installations completed without a permit as required by this chapter, not in conformity with the Electrical Code, shall be removed by the person responsible when ordered to do so by the enforcing officer.
- C. It is unlawful to use or allow the use of, or to supply current for an electrical system in a building or structure, unless the required certificate of inspection and permit have been issued by the Code Official.

- D. It is unlawful to ignore or deface a stop work order issued by the Code Official.

17.16.120 Emergency correction or abatement.

- A. Whenever in the judgment of the Director of Planning and Zoning or his or her designee, an emergency exists which requires immediate action to protect the public safety or welfare, an order may be issued without notice, conference or hearing, directing the owner, occupant, operator, agent or licensee to take whatever action is appropriate to correct or abate the emergency.
- B. All costs incurred for the emergency action or abatement shall be recovered from the owner in the form of a lien on the property and collectible in the same manner as delinquent taxes.

17.16.130 Electrical license-Required.

- A. No person shall do work as a master general, master limited or restricted electrician without first applying for and receiving a license from the State of Maryland or other approved Maryland jurisdictions. Licenses submitted from other jurisdictions will be subject to review and approval by the Code Official.
- B. No person shall do work in the City without first applying for and obtaining an electrical contractors license from the Director of Planning and Zoning or his or her designee. The license fee shall be established by resolution of the City Council. Applicant shall be a member, in good standing, with the State or local Board of Electrical Examiners.
- C. **Electrical License-Use by Others.** No person in the electrical business shall allow that person's name to be used by any other person, directly or indirectly, to obtain a permit, send in notices, make returns or to do any work under that person's license.
- D. **Insurance-Required.** No person shall do work as a master or restricted electrician without first submitting evidence that their insurance or surety required by Maryland State law is current and on file with the Department of Planning and Zoning.
- E. Issued licenses are not transferable for any reason.
- F. The Director or his or her designee may suspend or revoke a license issued for any irregularities or for unsafe or unworkmanlike installation, license violations, **and** misrepresentation of facts or for any violations of the Electrical Code and this chapter.

17.16.140 Enforcement responsibility.

The enforcement of the Electrical Code is the duty of the Director of Planning and Zoning or his or her designee.

17.16.150 Enforcement and administration.

NFPA 70, National Electrical Code, 2014²⁰ Edition, Annex H Article 80, published by the National Fire Protection Association, a copy of which is on file in the Department of Planning and Zoning, is adopted as the

administration and enforcement element of the Electrical Code of the City of Annapolis with the following amendments:

- A. Strike paragraphs (A) through (F) of Section 80.15.
- B. In Subsection (G) of Section 80.15, second line, ~~strike "Board" and~~ insert "Building Board of Appeals."
- C. In lines 1 and 2 of paragraph (A)(2) of Section 80.19, strike "or otherwise readily accessible" and in lines 2 and 3, strike "or carried by the permit holder as specified by the authority having jurisdiction."
- D. In lines 7 through 9 of paragraph (F)(3) of Section 80.19, ~~strike "Inspector or until _____ days have elapsed from the time of such notification, provided that on" and~~ insert "Inspector. On"
- E. In the title of Section 80.23, strike ", Penalties" and strike in its entirety paragraph (B) of Section 80.23.
- F. In line 1 of paragraph (C) of Section 80.25, strike the underlining and insert "30 days."
- G. In lines 10 and 11 of paragraph (E) of Section 80.25, strike "or a longer period as may be specified by the Board, the Board" and insert ". The Code Official."
- H. In lines 7 through 13 of paragraph (A) of Section 80.27, strike from "Board, except that any..." and all that follows through "in the same territory." and insert "State Electrical Board."
- I. In paragraph (B)(3) of Section 80.27, Inspector's Qualifications, strike the underlining and insert "the Charter and Code of Annapolis."
- J. In paragraph (B)(4) of Section 80.27, Inspector's Qualifications, strike the underlining in line 1 and insert "ten" and in the second line, strike "as an Electrical Inspector or _____ years."
- K. In Section 80.27, Inspector's Qualifications, strike paragraph (D) in its entirety.
- L. In Section 80.29, Liability for Damages, strike the underlining and insert "City of Annapolis."

SECTION II: AND BE IT FURTHER ESTABLISHED AND ORDAINED BY THE ANNAPOLIS CITY COUNCIL that this ordinance shall take effect upon passage.