Amendments and deletions to the 2008 Edition of the National Electric Code
Ordinance #12-022

Section 1.02 Purpose

The purpose of this Code is to provide minimum standards to safeguard life, limb, health, property and public welfare by regulating and controlling the design, construction, installation, quality of materials, location, operation, inspection, performance and maintenance of electrical equipment used for light, heat, power, radio, television, signaling and for other purposes.

Further, **Article I, Section 1.06**, Prima Facie Evidence of Safe Conditions, is hereby amended so that said section shall be and read as follows:

Section 1.06 Prima Facie Evidence of Safe Conditions

Conformity of electrical equipment and installations with provisions of this Code, the (NEC) National Electrical Code, and/or a (NRTL) Nationally Recognized Testing Laboratory shall be prima facie evidence that such equipment and installations are in safe condition.

Further, **Article I, Section 1.07**, National Electrical Code, is hereby amended so that said section shall be and read as follows:

Section 1.07 National Electrical Code

A. Adoption: The National Electrical Code, 2008 Edition, as published by the National Fire Protection Association, referred to herein as "NEC", a copy of which is filed in the office of the City Secretary of the City of Arlington, Texas, is hereby adopted and designated as the Electrical Code of the City of Arlington, the same as though such Code were copied at length herein, subject, however, to the deletions, amendments and addenda provided in Section 1.07(B) hereof.

B. Additions, Amendments and Deletions: The National Electrical Code, as adopted in Section 1.07(A) hereof, is hereby modified by the following deletions, amendments and addendums. These additions, amendments and deletions shall have precedence in any case where they are in conflict with the National Electrical Code adopted in Section 1.07(A) above.

1. The amendment of Section 210.8 entitled Ground-Fault Circuit-Interruption for Personnel., to read as follows:

210.8 Ground-Fault Circuit-Interruption for Personnel. Ground-fault circuit-interruption for personnel shall be provided as required in 210.8(A)

through (C). The ground-fault circuit interrupter shall be installed in a readily accessible location.

2. The amendment of Section 210.12 (B) entitled Dwelling Units., by the addition of exception #3 to read as follows:

Exception No. 3: Arc-Fault Circuit-Interrupter type circuit breakers shall not be required when ALL of the following conditions are met:

(1) The existing panelboard and/or circuit breaker supplying outlets otherwise required to be protected by arc-fault circuit interrupters is being replaced,

(2) The branch circuit feeding outlets required to be protected by arc-fault circuit interrupters is not being repaired, replaced, extended, or otherwise altered in any way, and

a. The dwelling unit was constructed prior to January 1, 2002; or,

b. A family room, dining room, living room, parlor, library, den, sunroom, recreation room, closet, hallway, or similar area was constructed prior to the date of adoption of the 2008 NEC.

3. The amendment of Table 210.24 entitled Summary of Branch-Circuit Requirements, to read as follows:

Table 210.24 Summary of Branch-Circuit Requirements

Circuit Rating	**15A**	**20A**	**30A**	**40A**	**50A**
Conductors (min. size)					
Circuit wires[1]	12	12	10	8	6
Taps	12	12	12	12	12
Fixture wires & cords – see 240.5					
Overcurrent Protection	**15 A**	**20 A**	**30 A**	**40 A**	**50A**
Outlet devices:					
Lampholders Permitted	Any type	Any type	Heavy Duty	Heavy Duty	Heavy Duty

Receptacle Rating[2]	15 max. A	15 or 20 A	30 A	40 or 50 A	50A
Maximum Load	**15 A**	**20 A**	**30 A**	**40 A**	**50A**
Permissible Load	See 210.23(A)	See 210.23(A)	See 210.23(B)	See 210.23(C)	See 210.23 (C)

[1] These gauges are for copper conductors
[2] For receptacle rating of cord-connected electric-discharge luminaires, see 410.30(C)

4. The amendment of Section 230.70(A)(1) entitled Readily Accessible Location., to read as follows:

(1) Readily Accessible Location. The service disconnecting means shall be installed and physically located at a readily accessible location outside of a building or structure.

Exception: In one- and two-family dwellings and townhouses the service disconnecting means shall be installed at a readily accessible location either outside or inside of the building. When located inside the building, the service disconnecting means shall be located so that the developed length of service conductors between the meter socket and the disconnecting means does not exceed five (5) feet (1.52 m) in developed length.

5. The amendment of Section 250.50 entitled Grounding Electrode System., to read as follows:

250.50 Grounding Electrode System. All grounding electrodes as described in 250.52(A)(1) through (A)(7) that are present at each building or structure served shall be bonded together to form the grounding electrode system. Where none of these grounding electrodes exist, one or more of the grounding electrodes specified in 250.52(A)(4) through (A)(8) shall be installed and used. Where a metal underground water pipe, as described in Section 250.52(A)(1), is not present, and no other grounding electrodes are available, one of the methods of grounding as specified below shall be used.

(a) A concrete-encased electrode encased by at least 2 inches of concrete within and near the bottom of a concrete foundation or footing in direct contact with earth and supplemented by one ground rod; or,

(b) Two ground rods as specified in Section 250.56 shall be permitted to be installed at least six feet apart when the concrete foundation

is existing (pre-construction) or does not have ½ inch or larger rebar installed in the concrete foundation or footing.

Exception: Concrete-encased electrodes of existing buildings or structures shall not be required to be part of the grounding electrode system where the steel reinforcing bars or rods are not accessible for use without disturbing the concrete.

6. The amendment of Section 250.68(B) entitled Effective Grounding Path., by the addition of a second paragraph to read as follows:

The connection of the grounding electrode conductor or bonding jumper to a grounding electrode shall be made in a manner that will ensure a permanent and effective grounding path. Where necessary to ensure the grounding path for a metal piping system used as a grounding electrode, bonding shall be provided around insulated joints and around any equipment likely to be disconnected for repairs or replacement. Bonding jumpers shall be of sufficient length to permit removal of such equipment while retaining the integrity of the grounding path. An effective grounding path connection to building steel shall be made by exothermic welding (cad welding); or listed pressure connectors or listed lugs with a bolted connection through drilled and thread tapped mounting hole(s) at an accessible point on a common structural building steel member.

7. The amendment of Section 250.64 entitled Grounding Electrode Conductor Installation., to read as follows:

250.64 Grounding Electrode Conductor Installation. Grounding electrode conductors at the service, at each building or structure where supplied by a feeder(s) or branch circuit(s), or at a separately derived system shall be installed as specified in 250.64(A) through (G).

8. The amendment of Section 250.64 entitled Grounding Electrode Conductor Installation., by the addition of subsection (G) to read as follows:

(G) **Single Point Grounding Electrode.** Multiple Occupancy buildings, other than Group R as defined in the building code, shall have an aluminum or copper busbar not less than 6mm X 50mm X 600mm (1/4 in. X 2 in. X 24 in.) installed in a lockable cabinet located at each service location. All available grounding electrodes as described in 250.52(A)(1) through (A)(7) shall be connected to this busbar. In no case shall the grounding electrode conductors serving this busbar be smaller than 3/0 AWG copper wire.

Exception #1 Where the electrode is a rod, pipe, or plate electrode, that portion of the bonding jumper that is the sole connection to the busbar shall not be smaller than 6 AWG copper wire.

Exception #2 Where the electrode is a concrete-encased electrode, that portion of the bonding jumper that is the sole connection to the busbar shall not be smaller than 4 AWG copper wire.

9. The amendment of Section 300.11(A) entitled Secured in Place., by the addition of the exception to read as follows:

   Exception: Ceiling grid support wire may be used for structural supports when the associated wiring is located in that area and not more than two raceways or cables supported per wire with a maximum nominal metric designation 16 (trade size 1/2".)

10. The amendment of Section 300.11(A)(1) entitled Fire Rated Assemblies and Section 300.11(A)(2) entitled Non-Fire Rated Assemblies., by the deletion of the Exception for each.

11. The amendment of Table 310.5 entitled Minimum size of conductors., to read as follows:

Table 310.5 Minimum Size of Conductors[1]

Conductor Voltage Rating (Volts)	Minimum Conductor Size (AWG)	
	Copper	Aluminum or Copper-Clad Aluminum
0-2000	12	1/0
2001-8000	8	1/0
8001-15,000	2	1/0
15,001-28,000	1	1/0
28,001-35,000	1/0	1/0

[1] Exception: An equipment grounding conductor within a listed cable assembly

12. The amendment of Section 310.15(B)(6) entitled 120/240-volt, 3-Wire, Single-Phase Dwelling Services and Feeders., by adding a last sentence to read as follows:

    This Section shall not be used in conjunction with Section 220.82 Optional Dwelling Unit Feeder and service Load Calculation.

13. The addition of Section 320.3 entitled Listed., to read as follows:

320.3 Listed. Type AC Cable shall be listed.

14. The amendment of Section 320.10 entitled Uses Permitted., to read as follows:

320.10 Uses Permitted. Type AC cable shall be permitted for concealed work in dry locations only as follows:

(1) For branch circuits in patient care areas when listed and labeled for the use.

FPN: The “Uses Permitted” is an all-inclusive list.

15. The amendment of Section 320.12 entitled Uses Not Permitted., to read as follows:

320.12 Uses Not Permitted
(1) Where subject to physical damage.
(2) In damp or wet locations.
(3) In air voids of masonry block or tile walls.
(4) Where exposed to corrosive fumes or vapors.
(5) Embedded in plaster finish on brick or other masonry.
(6) In exposed work.

16. The amendment of Section 334.10(3) to read as follows:

(3) Other structures permitted to be of Types III, IV, and V construction except as prohibited in 334.12. Cables shall be concealed within walls, floors, or ceilings that provide a thermal barrier of material that has at least a 15-minute finish rating as identified in listings of fire-rated assemblies acceptable to the authority having jurisdiction

FPN No. 1: Types of building construction and occupancy classifications are defined in accordance with the Construction Chapter.

FPN No. 2: See Annex E for determination of building types [NFPA 220, Table 3-1]. Cross Reference all building types as indicated in Table E.3 with the Construction Chapter.

FPN No. 3: Listings of acceptable finish ratings are provided in the Construction Chapter.

17. The amendment of Section 334.12(A), entitled Types NM, NMC, AND MNS., by the addition of item number (2), the renumbering of the

remaining item numbers, and the addition of item numbers (12), (13), and (14), to read as follows.

(A) Types NM, NMC, and NMS. Types NM, NMC, and NMS cables shall not be permitted as follows:

(1) In any dwelling or structure not specifically permitted in 334.10(1), (2), and (3)

Exception: Type NM, NMC, and NMS cable shall be permitted in Type I and II construction when installed within raceways permitted to be installed in Type I and II construction.

(2) In dwellings and other structures exceeding three floors

Exception: An additional floor level shall be permitted in multi-family dwellings where the entire structure is protected throughout by an approved sprinkler system.

(3) Exposed in dropped or suspended ceilings in other than one- and two-family and multifamily dwellings

(4) As service-entrance cable

(5) In commercial garages having hazardous (classified) locations as defined in 511.3

(6) In theaters and similar locations, except where permitted in 518.4(B).

(7) In motion picture studios

(8) In storage battery rooms

(9) In hoistways or on elevators or escalators

(10) Embedded in poured cement, concrete, or aggregate

(11) In hazardous (classified) locations, except where permitted by the following:

a. 501.10(B)(3)
b. 502.10(B)(3)
c. 504.20

(12) Types NM, NMC, NMS cable shall not be permitted to be installed in any occupancy with metal frame stud structures

(13) For circuits exceeding 150 volts to ground

(14) For dwelling unit feeders in multifamily dwellings

18. The addition of item #4 to Section 338.12(A) entitled Service-Entrance Cable., to read as follows:

(4) Type SE cable shall not be permitted for use as service entrance or feeder conductors for multifamily dwellings.

19. The addition of item #4 to Section 338.12(B) entitled Underground Service-Entrance Cable., to read as follows:

(4) Type USE cable shall not be permitted for use as service entrance or feeder conductors for multifamily dwellings.

20. The amendment of Section 362.12 item (6) to read as follows:

(6) Where the voltage is over 24 volts

21. The amendment of Section 500.8(A)(3) to read as follows:

(3) Evidence acceptable to the authority having jurisdiction such as an engineering judgment signed and sealed by a qualified Registered Professional Engineer.

22. The amendment of Section 505.7(A) entitled Implementation of Zone Classification System., to read as follows:

(A) Implementation of Zone Classification System. Classification of areas, engineering and design, selection of equipment and wiring methods, installation and inspection shall be performed by a qualified Registered Professional Engineer.

23. The amendment of Section 680.25(A) entitled Wiring Methods., to read as follows:

(A) Wiring Methods. Feeders shall be installed in rigid metal conduit, intermediate metal conduit, liquidtight flexible nonmetallic conduit, rigid polyvinyl chloride conduit, or reinforced thermosetting resin conduit. Electrical metallic tubing shall be permitted where installed on or within a building, and electrical nonmetallic tubing shall be permitted where installed within a building, or nonmetallic sheathed cable or type SE cable shall be permitted where installed within or on the building served.

Aluminum conduits shall not be permitted in the pool area where subject to corrosion.

Exception: An existing feeder between an existing remote panel board and service equipment shall be permitted to run in flexible metal conduit or an approved cable assembly that includes an equipment grounding conductor within its outer sheath. The equipment grounding conductor shall comply with 250.24(A)(5)