

ORDINANCE NO. 15900

AN ORDINANCE AMENDING TITLE 18, (BUILDING AND CONSTRUCTION), CHAPTER 18.16 (ELECTRICAL CODE) OF THE EL PASO CITY CODE TO ADOPT THE 2002 EDITION OF THE NATIONAL ELECTRICAL CODE WITH CHANGES APPROPRIATE FOR THE CITY OF EL PASO. THE PENALTY BEING AS PROVIDED IN SECTION 18.02.107 OF THE EL PASO CITY CODE.

WHEREAS, by Ordinance No. 014308, enacted December 14, 1999, the 1999 Edition of the National Electrical Code was adopted with changes appropriate for the City of El Paso; and

WHEREAS, the 1999 Edition of the National Electrical Code has been updated and the adoption of the 2002 Edition of the National Electrical Code is now proposed; and

WHEREAS, The Building Permits & Inspections Director has recommended and the Building and Zoning Advisory Committee has reviewed and favorably recommended the adoption of local amendments to the 2002 National Electrical Code appropriate for the City of El Paso;

AND

WHEREAS, the City Council has deemed the proposed modifications appropriate for the City;

NOW, THEREFORE, be it ordained by the City Council of the City of Paso

That Title 18 (Building and Construction), Chapter 18.16 (Electrical Code), of the El Paso City Code, be and is hereby amended to read as follows:

18.16.010 Short title.

This chapter may be cited as the electrical code.

18.16.020 Adoption.

The book entitled "National Electrical Code," 2002 Edition, (NFPA) No. 70-2002, (a copy of which, authenticated by the signatures of the mayor and city clerk and made a public record by resolution of the city council, is on file in the city clerk's office) is adopted as a part of this code as fully as if copied at length in this chapter, but with the changes set forth in this chapter.

18.16.030 Chapter 18.02 Building and Construction Administrative Code - Adopted.

Chapter 18.02, building and construction administrative code of the Municipal Code shall serve as the administrative chapter for the electrical code.

18.16.040 Article 80 Administration and Enforcement – Amended. Article 80 Administration and Enforcement shall be and is hereby deleted in its entirety and amended to read as follows:

Article 80 Additional Requirements.

80.1 Applications.

(A) New Installations.

This Code applies to new installations. Buildings with construction permits dated after the adoption of this Code shall comply with its requirements.

(B) Existing Installations.

Existing electrical installations that do not comply with the provisions of this Code shall be permitted to be continued in use unless the Director of Building Permits and Inspections determines that the lack of conformity with this Code present an imminent danger to occupants. Where changes are required for correction of hazards, a reasonable amount of time shall be given for compliance, depending on the degree of the hazard.

(C) Additions, Alterations, or Repairs.

Additions, alterations, or repairs to any building, structure, or premises shall conform to that required of a new building without requiring the existing building to comply with all the requirements of this Code. Additions, alterations, installations, or repairs shall not cause an existing building to become unsafe or to adversely affect the performance of the building, from the point of view of the health, safety and welfare of the occupants and the public, as determined by the Director of Building Permits and Inspections. Electrical wiring added to an existing service, feeder, or branch circuit shall not result in an installation that violates the provisions of the Municipal Code at the time the additions are made.

80.2 Evaporative Coolers.

Evaporative cooler shall have their controls mounted in a metal box. Feeders for such equipment shall be run in conduit to a metal box mounted on the equipment, and shall terminate in a switchable disconnect device.

80.3 Controls and Operating Mechanisms.

In areas required by the Building Code to be accessible to persons with disabilities, the highest operable part of controls, receptacles and other operable equipment shall be placed within at least of one of the reach ranges specified in this section. Electrical and communications receptacles on walls shall be mounted no less than 15 in (380 mm) above the floor to the bottom of the box

80.3.1 Forward Reach.

If the clear floor space allows only forward approach to an object, the highest operable part of controls, receptacles and other operable equipment shall be placed not more than 48 in (1220 mm) above finished floor to the top of the box.

80.3.2 Side Reach.

If the clear floor space allows only parallel approach to an object, the highest operable part of controls, receptacles and other operable equipment shall be placed not more than 54 in (1370 mm) above finished floor to the top of the box.

18.16.050 Section 210.70 -Amended.

National Electrical Code Section 210 70 is amended as follows:

1. Paragraph (A)(2)(b) Dwelling Units shall be amended by amending the last sentence to read as follows:

A vehicle door in an attached garage is considered an outdoor entrance.

2. Paragraph (A)(3) Storage and Equipment Spaces shall be amended by adding the following at the end of the paragraph:

An attic shall be considered storage area if it has either a decked area or permanent access ladder

18.16.060 Section 210.71 Additional Outlets - Added.

National Electrical Code is amended by adding a new Section 210 71 to read as follows:

210.71 Additional Outlets.

The following receptacle outlets shall be installed, in addition to those required by Sections 210-50 through 210-70:

- (1) On wall areas over work benches, behind bars, serving counters, or other wall spaces where electrical signs or appliances may be used or installed, not less than one (1) receptacle outlet shall be installed for every six (6) feet or major fraction thereof (i.e. the second outlet shall be located a maximum of 9 feet from the beginning of the work bench, serving counter or wall space) from the edge measured horizontally along such wall parallel to the floor or ceiling.
- (2) In lounges, taverns, bars or other establishments where electrical signs, appliances or similar devices may be placed on or attached to the ceiling, sufficient receptacle outlets shall be installed on the ceilings so that no point on such ceiling is more than twenty (20) feet from a receptacle outlet.
- (3) In "mini-warehouse" units or similar storage occupancies designed to be leased or rented individually the following minimum requirements for lights and receptacles shall be provided:
 - (a) One light controlled by a switch, within each unit, or
 - (b) Exterior lighting providing a minimum 1.0 foot-candle illumination at the ground level at the center of the entry door of each unit.
- (4) Flexible cords more than six (6) feet in length shall not be used to connect plug-in appliances, electrical signs, or similar devices to the receptacle outlets required under paragraphs (a) and (b) of this subsection.

18.16.070 Section 215.12 Wiring Methods for Feeders - 600 Volts or Less - Added.
National Electrical Code is amended by adding a new Section 215-12 to read as follows:

Section 215.12 Wiring Methods for Feeders - 600 Volts or Less.

(a) All occupancies:

Feeder conductors shall be installed in accordance with the applicable requirements of this Code covering the type of wiring method used and shall be limited to the following methods:

- (1) Rigid metal conduit
- (2) Intermediate metal conduit
- (3) Electrical metallic tubing
- (4) Busways
- (5) Metal wireways
- (6) Rigid non-metallic conduit
- (7) Mineral insulated, metal sheathed cable
- (8) Surface metal raceways
- (9) Cellular metal raceways

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- (10) Cable bus
- (11) Flexible metal conduit only where one of the other methods cannot be reasonably installed and only if equipped with the appropriate size ground wire
- (12) Electrical non-metallic tubing.
- (13) Metal clad cable
- (14) Armored cable

(b) All one-family, two-family or multi-family occupancies:

- (1) All of the wiring methods listed in subparagraph (a) above
- (2) Underground feeder and branch circuit cable
- (3) Service entrance cable
- (4) Non-metallic sheathed cable

18.16.080 Section 230.28 - Amended.

National Electrical Code Section 230.28 is amended to read as follows:

230.28. Service Masts.

(a) Where a service mast is used for the support of service-drop conductors, it shall be of rigid metal conduit or intermediate metal conduit supported and anchored to safely withstand the strain imposed by the service drop. All mast fittings shall be identified for use with service masts. Only power service-drop conductors shall be permitted to be attached to a service mast.

(b) All other service masts shall be of rigid metal conduit, intermediate metal conduit, or electrical metallic tubing.

(c) Service masts shall not extend above the roof more than three (3) feet for dwelling occupancies, nor more than five (5) feet for other occupancies without the prior approval of the Director for Building Permits and Inspections.

18.16.090 Section 230.43 - Amended.

National Electrical Code Section 230-43 is amended to read:

230.43 Wiring methods for 600 volts, nominal, or less:

Service entrance conductors shall be installed in accordance with the applicable requirements of this Code covering the wiring method used and shall be limited to the following wiring methods:

- (a) Rigid metal conduit
- (b) Intermediate metal conduit
- (c) Electrical metallic tubing
- (d) Busways

- (e) Metal wireways
- (f) Metal auxiliary gutters
- (g) Non-metallic rigid conduit for laterals only
- (h) Flexible metal conduit not over 6 ft (1.83 m) long or liquidtight flexible metal conduit not over 6 ft (1.83 m) long between raceways, or between raceway and service equipment, with equipment bonding jumper routed with the flexible metal conduit or the liquidtight flexible metal conduit according to the provisions of Section 250-102(a), (b), (c) and (e)
- (i) Liquidtight flexible nonmetallic conduit.
- (j) Mineral-insulated, metal-sheathed cable.

18.16.100 Section 230.50 - Deleted.
National Electrical Code Section 230.50 is deleted entirely.

18.16.110 Section 230.51 - Deleted.
National Electrical Code Section 230.51 is deleted entirely.

18.16.120 Section 230.52 - Deleted.
National Electrical Code Section 230.52 is deleted entirely.

18.16.130 Section 230.70(A)(1) - Amended.
National Electrical Code Section 230.70(A)(1) Location is amended to read as follows:

(1) Readily Accessible Location.

(a) Services rated 400 amps or less. A load-break rated meter disconnect shall be installed on the exterior of the building or structure adjacent to and not more than five (5) feet from the meter. The service disconnecting means is allowed to meet this requirement if installed in compliance with this proximity requirement and the requirements of the NEC. If the service disconnecting means is located more than five feet from the meter, a separate and additional load-break rated meter disconnect that meets this proximity requirement is required on the supply (line) side of the service disconnecting means.

(b) Services rated over 400 amps. The service disconnecting means shall be located not more than five (5) feet, measured vertically and horizontally, from the point where the service conductors enter the building or structure.

18.16.140 Section 310-2(B) amended.
National Electrical Code Section 310-2(B) is amended to read as follows:

(b) Conductor Material. Conductors in this article shall be of aluminum, copper clad aluminum or copper unless otherwise specified. Aluminum or copper-clad aluminum conductors shall not be smaller than No 2 AWG, except a ground conductor which is part of an approved cable assembly shall be not smaller than No 6 AWG.

18.16.150 Section 334.10 - Amended

National Electrical Code Section 334.10, items 334.10(1), (2), (3) and (4) are amended to read as follows:

334.10 Uses Permitted. Type NM, Type NMC, and Type NMS cables shall be permitted to be used in the following:

- (1) One- and two-family dwellings
- (2) Multifamily dwellings not exceeding three floors above grade.

18.16.160 Section 358.10(B) - Amended.

National Electrical Code Section 358.10(B) is amended to read as follows:

(B) Corrosion Protection. Ferrous or nonferrous EMT, elbows, couplings, and fittings shall be permitted to be installed in concrete. EMT shall not be used in direct contact with the earth or in areas subject to severe corrosive influence

18.16.170 Article 382 Nonmetallic Extensions - Deleted.

National Electrical Code Article 382 Nonmetallic Extensions is deleted entirely

18.16.180 Article 394 - Deleted.

National Electrical Code Article 394 is deleted entirely

18.16.190 Article 398 - Deleted.

National Electrical Code Article 398 is deleted entirely.

18.16.200 Subsection 404.10(A) - Deleted.

National Electrical Code subsection 404.10(A) is deleted entirely.

18.16.210 Section 422.12 Central Heating Equipment - Amended.

National Electrical Code Section 422-12 Central Heating Equipment is amended to read as follows:

422.12 Central Heating Equipment. Central heating equipment other than fixed electric space-heating equipment shall be supplied by an individual branch circuit.

Exception 1: Auxilliary equipment, such as pump, valve, humidifier, or electrostatic air cleaner directly associated with the heating equipment, shall be permitted to be connected to the same branch circuit.

Exception 2: Evaporative coolers may be supplied by the same individual branch circuit supplying the central heating equipment in residential occupancies only, provided the loads are non-coincidental

18.16.220 Section 527.4(K) Temporary Service Poles - Added

National Electrical Code Section 527.4(K) Temporary Service Poles is added to read as follows::

(K) Temporary Service Poles. Temporary service poles shall be a minimum of six (6) inch by six (6) inch treated wood posts, or six (6) inch diameter round treated poles securely imbedded in the earth.

18.16.230 Section 550.10(J) - Added.

National Electrical Code Section 550.10 is amended by adding Section (J) to read as follows:

(J) Service Drop Conductors. Service drop conductors shall not be routed above the roof of mobile homes

18.16.240 Section 600.10 - Deleted.
National Electrical Code Section 600.10 is deleted entirely

18.16.250 Section 600.43 Miscellaneous Provisions - Added.
National Electrical Code is amended by adding a new Section 600 43 Miscellaneous Provisions to read as follows:

Section 600.43 Miscellaneous Provisions:

- (A)** Sign circuits shall contain a copper grounding conductor deriving from the circuit's supply source; exterior locations shall terminate in a weatherproof box and cover. Taps in metallic raceways shall not be allowed as the grounding means
- (B)** All sign installations shall maintain a clearance from adjacent power lines as follows:

VOLTAGE – LINE TO GROUND	H (ft.) MINIMUM HORIZONTAL CLEARANCE	V (ft.) MINIMUM CLEARANCE MEASURED EITHER DIAGONALLY OR VERTICALLY	V (ft.) OVER OR UNDER CATWALKS MINIMUM CLEARANCE MEASURED EITHER DIAGONALLY OR VERTICALLY
GUY WIRES AND NEUTRALS	3	3	10.5
0-750 V SUPPLY CABLES MEETING RULE 230C2 AND 230C3 NESC, 1997	3.5	3.5	11
0- 750 V OPEN CONDUCTORS N.E.S.E. RULE 230C2 AND 230C3	5.5	6	11.5
750 V – 22KV	7.5	8	13.5

Notes to table:

- 1. Signs should never hang over any adjacent power circuits.
- 2. Voltages are line to ground on a Y-Circuit with multi-ground neutral or between phases on an underground circuit.

18.16.260 Section 725.41(C) - Added.
National Electrical Code Section 725.41(C) Transformers for Class 2 and Class 3 low voltage Circuits is added to read as follows:

(C) Transformers for Class 2 and Class 3 low voltage Circuits.

- (1) Transformers for Class 2 and Class 3 low voltage circuits shall be accessible.
- (2) Transformers for Class 2 and Class 3 low voltage circuits shall be installed in accordance with their listing

18.16.270 Errata

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Errata to the 2002 NEC Code issued by the National Fire Protection Association shall become part of this Code.

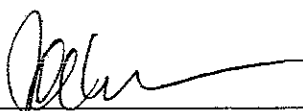
18.16.280 Conflicting Ordinances

All ordinances and parts of Ordinances in conflict with the provisions of this ordinance are hereby repealed as follows:

Ordinance No. 014308, 12-14-1999.

PASSED AND APPROVED this 28th day of September, 2004.

THE CITY OF EL PASO



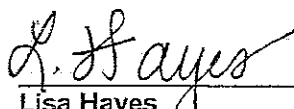
Joe Wardy
Mayor

ATTEST:



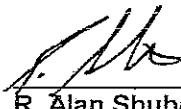
Richarda Duffy Momsen
City Clerk

APPROVED AS TO FORM:



Lisa Hayes
Assistant City Attorney

APPROVED AS TO CONTENT:



R. Alan Shubert, P. E.
Director for Building Permits and
Inspections