ORDINANCE NO. _____

AN ORDINANCE ADOPTING THE 2008 EDITION OF THE NATIONAL ELECTRICAL CODE AND AMENDING TITLE 18 (BUILDING AND CONSTRUCTION), CHAPTER 18.16 (ELECTRICAL CODE), OF THE EL PASO CITY CODE, TO PROVIDE FOR LOCAL AMENDMENTS TO THE 2008 NATIONAL ELECTRICAL CODE, THE PENALTY BEING AS PROVIDED IN SECTION 18.02.107 (VIOLATIONS AND PENALTIES) OF THE EL PASO CITY CODE.

WHEREAS, the 2008 edition of the National Electrical Code has been published and adoption of the 2008 edition of the National Electrical Code is now proposed; and

WHEREAS, the Development Services Department Director and the Planning and Development Legislative Review Committee have reviewed and favorably recommend the adoption of the 2008 National Electrical Code together with the local amendments appropriate for the City of El Paso; and

WHEREAS, the City Council has deemed the proposed local amendments appropriate for the City of El Paso.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF EL PASO:

A. That the book entitled "NFPA 70 National Electrical Code," 2008 Edition, a copy of which authenticated by the City Clerk is on file in the City Clerk's Office, is hereby adopted by the City Council for the City of El Paso.

B. That Title 18 (Building and Construction), Chapter 18.16 (Electrical Code), of the El Paso City Code, containing the local amendments to the 2008 National Electrical Code, shall be and is hereby amended in its entirety to read as follows:

Chapter 18.16 ELECTRICAL CODE*

18.16.010 Short title.
18.16.020 Adoption.
18.16.030 Section 80 Evaporative Coolers, added.
18.16.040 Section 210.70 Lighting Outlets Required (A)(2)(b), amended.
18.16.050 Section 210.70 Lighting Outlets Required (A)(3), amended.
18.16.060 Section 210.71 Additional Outlets, added.
18.16.070 Section 215.13 Wiring Methods for Feeders 600 Volts or Less, added.
18.16.080 Section 215.14 Split Bolt Connections, added.
18.16.090 Section 230.28 Service Masts as Supports, amended.
18.16.100 Section 230.43 Wiring Methods for 600 Volts, Nominal, or Less, amended.
18.16.110 Section 230.70 General, (A)(1) amended.
18.16.120 Section 230.70.1 Section 230.7.1 "Six Hand Movement", added.
18.16.130 Section 250.8 Connection of Grounding and Bonding Equipment (A)(6), deleted.

18.16.140 Section 250.8 Connection of Grounding and Bonding Equipment (B), amended.
18.16.150 Section 310.2 Conductors (B), amended.
18.16.160 Section 334.10 Uses Permitted, amended.
18.16.170 Section 358.10 Uses Permitted (B), amended.
18.16.180 Article 382 Nonmetallic Extensions, deleted.
18.16.190 Article 394 Concealed Knob-and-Tube Wiring, deleted.
18.16.200 Article 398 Open Wiring on Insulators, deleted.
18.16.210 Section 404.10 Mounting of Snap Switches (A), deleted.
18.16.220 Section 406.8 Receptacles in Damp or Wet Locations (F), added.
18.16.230 Section 406.8 Receptacles in Damp or Wet Locations (G), added.
18.16.240 Section 410.36 Means of Support (B), amended.
18.16.250 Section 422.12 Central Heating Equipment, amended.
18.16.260 Section 590.4 General (K), added.
18.16.270 Section 600.10 Portable or Mobile Signs, deleted.
18.16.280 Section 600.43 Miscellaneous Provisions, added.
18.16.290 Section 725.41 Class 1 Circuit Classifications and power Source Requirements (C), added.
18.16.300 Errata, adopted.
18.16.310 Conflicting ordinances.

* Prior history: prior code §§ 6-48--6-50.3, 6-50.9--6-50.13, 6-50.23--6-50.25, 6-50.29--6-50.37, 6-50.40, 6-50.41, 6-50.46--6-50.64 and Ords. 8346, 8772, 9065, 9075, 9431, 9614, 9656, 9657, 9658, 9659, 9757, 9758, 9846, 9847, 11833, 13152, 13315, 14308, 15900.

18.16.010 Short title.
This chapter may be cited as the "Electrical Code".

18.16.020 Adoption.
The book entitled "NFPA 70 National Electrical Code," 2008 Edition, a copy of which authenticated by the City Clerk is on file in the City Clerk's Office is adopted as the Electrical Code of the City, as fully as if copied at length in this chapter, but with the changes set forth in this chapter and Chapter 18.02, the Building and Administrative Code of the City of El Paso.

18.16.030 Article 80 Evaporative Coolers, added.
NFPA 70 National Electrical Code, 2008 Edition, Article 80 Evaporative Coolers, is hereby added to read as follows:

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

80.2 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 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.

80.4 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.
(Ord. 15900 (part), 2004)

18.16.040 Section 210.70 Lighting Outlets Required (A)(2)(b), amended.
NFPA 70 National Electrical Code, 2008 Edition, Section 210.70 Lighting Outlets Required, (A) Dwelling Units, (2) Additional Locations, (b) is hereby amended to read as follows:

210.70 Lighting Outlets Required, (A) Dwelling Units, (2) Additional Locations (b). For dwelling units, attached garages, and detached garages with electric power, at least one wall switch-controlled lighting outlet shall be installed to provide illumination on the exterior side of outdoor entrances or exits with grade level access. A vehicle door in a garage shall be considered as an outdoor entrance or exit.

18.16.050 Section 210.70 Lighting Outlets Required (A)(3), added.
NFPA 70 National Electrical Code, 2008 Edition, Section 210.70 Lighting Outlets Required, (A) Dwelling Units, (3) Storage or Equipment Spaces, is hereby amended by adding the following sentence at the end of the paragraph:

210.70 Lighting Outlets Required (A) Dwelling Units (3) Storage or Equipment Spaces. Add: 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.
NFPA 70 National Electrical Code, 2008 Edition, Section 210.71, Additional Outlets, is hereby added to read as follows:

210.71 Additional Outlets.
The following receptacle outlets shall be installed, in addition to those required by National Electrical Code, 2009 Edition, 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.

(Ord. 15900 (part), 2004)

18.16.070 Section 215.13 Wiring Methods for Feeders 600 Volts or Less, added.

NFPA 70 National Electrical Code, 2008 Edition, Section 215.13 Wiring Methods for Feeders 600 Volts or Less, is hereby added to read as follows:

215.13 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
(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 215.14 Split Bolt Connections, added.
NFPA 70 National Electrical Code, 2008 Edition, Section 215.14 Split Bold Connections, is hereby added to read as follows:

215.14. Split Bolt Connections.
"Split Bolt" (Kerney) type connections will not be allowed for services or any type of feeders.

18.16.090 Section 230.28 Service Masts as Supports, amended.
NFPA 70 National Electrical Code, 2008 Edition, Section 230.28, Service Masts as Supports, is hereby amended to read as follows:

230.28. Service Masts as Supports.

(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 building official.

18.16.100 Section 230.43 Wiring Methods for 600 Volts, Nominal, or Less, amended.
NFPA 70 National Electrical Code, 2008 Edition, Section 230.43 Wiring Methods for 600 Volts, Nominal, or Less, is hereby amended to read as follows:

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.

18.16.110 Section 230.70 General, (A)(1), amended.

NFPA 70 National Electrical Code, 2008 Edition, Section 230.70 General, (A) Location, (1) Readily Accessible Location, is hereby amended to read as follows:

230.70 Gerneral. **(A) Location. (1) Readily Accessible Location.**

(1) Readily Accessible Location.

(a) Services rated 800 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 800 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.

(Ord. 15900 (part), 2004)

18.16.120 Section 230.70.1 "Six Hand Movement", added.

NFPA 70 National Electrical Code, 2008 Edition, Section 230.70.1, "Six Hand Movement", is hereby added to read as follows:

230.70.1 "Six Hand Movement".

"Six Hand Movement" rule will apply to switches or circuit breakers used to disconnect feeders only. A "main" switch or circuit breaker will be required ahead of any branch circuit overcurrent protection.

18.16.130 Section 250.8 Connection of Grounding and Bonding Equipment (A) (6), deleted.

NFPA 70 National Electrical Code, 2008 Edition, Section 250.8 Connection of Grounding and Bonding Equipment, paragraph (A)(6) is hereby deleted in its entirety.

18.16.140 Section 250.8 Connection of Grounding and Bonding Equipment (B) Methods Not Permitted, amended.

NFPA 70 National Electrical Code, 2008 Edition, Section 250.8 Connection of Grounding and Bonding Equipment, (B) Methods Not Permitted, is hereby amended to read as follows:

250.8 Connection of Grounding and Bonding Equipment, (B) Methods Not Permitted. (1) Connection devices or fittings that depend solely on solder shall not be used. (2) Sheet metal screws shall not be used to connect grounding conductors or connection devices to enclosures.

18.16.150 Section 310.2 Conductors (B) Conductor Material, amended.

NFPA 70 National Electrical Code, 2008 Edition, Section 310.2 Conductors, (B) Conductor Material, is hereby amended to read as follows:

310.2 Conductors, (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.

18.16.160 Section 334.10 Uses Permitted (1), (2), (3), (4), amended.
NFPA 70 National Electrical Code, 2008 Edition, Section 334.10 Uses Permitted, items (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.

18.16.170 Section 358.10 Uses Permitted (B) Corrosion Protection, amended.
NFPA 70 National Electrical Code, 2008 Edition, Section 358.10 Uses Permitted, (B) Corrosion Protection, is hereby amended to read as follows:

358.10 Uses Permitted, (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.

18.16.180 Article 382 Nonmetallic Extensions, deleted.
NFPA 70 National Electrical Code, 2008 Edition, Article 382 Nonmetallic Extensions is hereby deleted in its entirety.

18.16.190 Article 394 Concealed Knob-and-Tube Wiring, deleted.
NFPA 70 National Electrical Code, 2008 Edition, Article 394, concealed Knob-and-Tube Wiring, is hereby deleted in its entirety.

18.16.200 Article 398 Open Wiring on Insulators, deleted.
NFPA 70 National Electrical Code, 2008 Edition, Article 398, Open Wiring on Insulators is herby deleted in its entirety.

18.16.210 Section 404.10 Mounting of Snap Switches, (A) Surface-Type, deleted. NFPA 70 National Electrical Code, 2008 Edition, Section 404.10 Mounting of Snap Switches, (A) Surface-Type, is hereby deleted in its entirety.

18.16.220 Section 406.8 Receptacles in Damp or Wet Locations (F) Plastic Bubble Type, added.
NFPA 70 National Electrical Code, 2008 Edition, Section 406.8 Receptacles in Damp or Wet Locations, is hereby amended to add paragraph (F) Plastic Bubble Type, to read as follows:

406.8 Receptacles in Damp or Wet Locations.
(F) "Plastic Bubble Type" in-use covers are not permitted.

18.16.230 Section 406.8 Receptacles in Damp or Wet Locations (G) Air Condition Equipment, added.

NFPA 70 National Electrical Code, 2008 Edition, Section 406.8 Receptacles in Damp or Wet Locations, is hereby amended to add paragraph (G) Air Condition Equipment, to read as follows:

406.8 Receptacles in Damp or Wet Locations.
(G) Air Condition Equipment.
Receptacles used solely for the maintenance of air condition equipment will not be required to have "In Use" type covers.

18.16.240 Section 410.36 Means of Support (B) Suspended Ceilings, amended.
NFPA 70 National Electrical Code, 2008 Edition, Section 410.36 Means of Support, (B) Suspended Ceilings, is hereby amended to delete the last sentence as follows:

410. 36 Means of Support, (B) Suspended Ceilings, delete "Listed clips identified for use with the type of ceiling member and luminaire(s) shall also be permitted."

18.16.250 Section 422.12 Central Heating Equipment, amended.
NFPA 70 National Electrical Code, 2008 Edition, Section 422.12 Central Heating Equipment, is hereby 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.

18.16.260 Section 590.4 General (K) Temporary Service Poles, added.
NFPA 70 National Electrical Code, 2008 Edition, Section 590.4 General, is hereby amended to add paragraph (K) Temporary Service Poles, to read as follows:

590.4 General
(K) Temporary Service Poles.
Temporary service poles shall be a minimum of four (4) inch by four (4) inch treated wood posts, or four (4) inch diameter round treated poles securely imbedded in the earth.

18.16.270 Section 600.10 Portable or Mobile Signs, deleted.
NFPA 70 National Electrical Code, 2008 Edition, Section 600.10 Portable or Mobile Signs, is hereby deleted in its entirety.

18.16.280 Section 600.43 Miscellaneous Provisions, added.

NFPA 70 National Electrical Code, 2008 Edition, Section 600.43 Miscellaneous Provisions, is hereby added to read as follows:

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
750V--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.

(Ord. 15900 (part), 2004)

18.16.290 Section 725.41 Class 1 Circuit Classifications and Power Source Requirements (C) Transformers for Class 2 and Class 3 low voltage Circuits, added.

NFPA 70 National Electrical Code, 2008 Edition, Section 725.41 Class 1 Circuit Classifications and Power Source Requirements, is hereby amended to add paragraph (C) Transformers for Class 2 and Class 3 low voltage Circuits, to read as follows:

725.41 Class 1 Circuit Classifications and Power Source Requirements.

(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.

18.16.300 Errata, adopted.

Errata to the 2008 NEC Code issued by the National Fire Protection Association is hereby adopted and shall become part of this code.

18.16.310 Conflicting ordinances.
All ordinances and parts of ordinances in conflict with the provisions of this chapter are hereby repealed as follows: Ordinance No. 014308, 12-14-1999 and Ordinance No. 15900, 09-28-2004.

C. The effective date of this ordinance shall be September 1, 2010. This ordinance shall be applicable to all permit applications received on or after that date.

D. Except as herein provided, Title 18 (Building and Construction) shall remain in full force and effect.

PASSED AND APPROVED this _____ day of _____, 2010.

THE CITY OF EL PASO

_____
John F. Cook
Mayor

ATTEST:

_____
Richarda Duffy Momsen
City Clerk

APPROVED AS TO FORM:

_____
Cynthia Osborn
Assistant City Attorney

APPROVED AS TO CONTENT:

_____
Patricia D. Adauto
Deputy City Manager
Development & Infrastructure Services