ORDINANCE 7137

PAMPHLET

BUILDING CODE AMENDMENTS NATIONAL ELECTRICAL CODE (NEC)



PUBLISHED IN PAMPHLET FORM THIS 16^{th} DAY OF OCTOBER, 2015, BY ORDER OF THE CORPORATE AUTHORITIES OF THE VILLAGE OF LOMBARD, DUPAGE COUNTY, ILLINOIS.

Sharon Kuderna Village Clerk

ORDINANCE NO. 7137

AN ORDINANCE GRANTING APPROVAL OF TEXT AMENDMENTS TO TITLE 15, CHAPTER 150 OF THE LOMBARD VILLAGE CODE TO PROVIDE FOR THE ADOPTION OF THE 2011 NATIONAL ELECTRICAL CODE, ITS COMPANION PUBLICATIONS AND LOCAL AMENDMENTS THERETO

WHEREAS, the Village of Lombard (the "Village") has adopted a Code of Ordinances to regulate, among other things, the development of buildings and structures within the Corporate limits of the Village; and

WHEREAS, the Village has adopted regulations set forth within Title 15, Chapter 150, Section 150.060 et. seq. of the Village Code, that establishes rules and regulations for electrical installation; and

WHEREAS, the Village has determined that it is in the best interest of the community to periodically review the existing regulations and offer periodic changes to address issues pertaining to electrical code requirements; and

WHEREAS, a review of the Building Code has been conducted by the Village of Lombard Electrical Commission on August 26, 2015; and,

WHEREAS, the Electrical Commission has filed its recommendations with the President and Board of Trustees recommending approval of the text amendments described herein; and,

NOW, THEREFORE, BE IT ORDAINED BY THE PRESIDENT AND BOARD OF TRUSTEES OF THE VILLAGE OF LOMBARD, DU PAGE COUNTY, ILLINOIS, as follows:

SECTION 1: That Title 15, Chapter 150 of the Lombard Village Code is hereby amended as follows with text amendments in **bold and underline** and deletions denoted by strikethrough:

§ 150.060 ESTABLISHMENT OF RULES AND REGULATIONS OF ELECTRICAL INSTALLATION.

The National Electrical Code (2008 2011 Edition), as hereby amended and as modified by this Chapter, shall establish the rules and regulations of electrical installations in the Village.

§ 150.061 **DEFINITION**

For the purpose of this Chapter the following definitions shall apply unless the context clearly indicates or requires a different meaning.

<u>Electrical Contractor</u> as used in this Chapter 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 or other installations covered in Article 90.2, Scope of the

National Electrical Code (2008 2011 Edition); but "electrical contractor" does not include employees of such contractor who perform or supervise such work.

<u>Communications Contractor</u> is one that installs only Class 2 or Class 3 type wiring as defined in Articles 725.1 and 725.2 of the National Electrical Code (2008 2011 Edition) (NEC), and only that portion of the wiring system between the load side of a Class 2 or Class 3 power source and the connected equipment.

(Ord. 5481, Passed 5/6/04; Ord. 6522, passed 9/16/10)

§ 150.062 ELECTRICAL CONTRACTORS AND COMMUNICATIONS CONTRACTORS MUST BE REGISTERED; CERTIFICATE OF INSURANCE.

It is unlawful for any person, firm or corporation to engage in the business of Electrical Contractor or Communications Contractor within the Village of Lombard, without being registered in the manner hereinafter set forth.

- (A) Registration. Any person, firm or corporation desiring to engage in the business of an Electrical Contractor or Communications Contractor shall:
- (1) Furnish a copy of current registration or license issued by any City, Village or Town in the State of Illinois that was obtained only after the passage of a recognized written test.
- (2) Homeowner. A homeowner shall be registered by application to the Village. Said registration shall be restricted to allow work only on the homeowners' personal and primary residence. A qualification test shall be passed in order to secure this registration and permits to install, modify or revise an electrical service or service conductors. No electrical work shall be allowed under this provision in commercial, industrial or multifamily residential occupancies. Work done on these type occupancies shall be performed only by a registered Electrical Contractor.
- (B) Use of Permit Issued to Another. It shall be unlawful for any person to install, alter or repair any electrical wires or apparatus by authority of a permit issued to and for the use of some other person.
- (C) Permit for Person Not Entitled to One. It shall be unlawful for any registered Electrical or Communications Contractor to secure or furnish a permit for the installation, alteration, and repair of electrical wires and apparatus to any person not entitled to such permit under the regulations of this Chapter.
- (D) Revocation of Permits. The Community Development Director or his/her designee is authorized to revoke any permit or certificate obtained by fraud, misrepresentation, or in any way contrary to the provisions of the electrical regulations of this Chapter, for installation, alteration, repair and use of any electrical conductors, electrical equipment, signaling & communications conductors and equipment, and fiber optic cables and raceways.
- (E) Certificate of Insurance. Refer to Contractor Registration and Insurance Requirements §150.143.

(Ord. 6522, passed 9/16/10; Ord. 6832, passed 5/17/13)

§ 150.063 PERMIT REQUIRED

No person shall install any electrical conduits, electrical wires, electrical equipment, apparatus or communications, data, computer or fiber optics cables, conduits, equipment or apparatus in any building or structure, for which a permit is required, until such permit shall have been secured. In case any work is begun without a permit authorizing said work, the Community Development Director or his/her designee shall have the power to stop said work and order all persons engaged therein to stop and desist until the proper permit is secured.

Underground installations in the parkway area require an additional permit (Right-of-Way Permit) from the Village of Lombard Public Works Department. (Ord. 6522, passed 9/16/10)

§150.064 DISCONNECTION OF ELECTRICAL SERVICES

- (A) If any person violates the provisions of this Chapter or maintains any electrical wiring or apparatus or communication, data, computer, or fiber optic cable or equipment found to be dangerous to life and property, the Community Development Director of <u>or</u> his/her designee is hereby empowered to cut-off or otherwise disconnect current to said electrical wires or apparatus.
- (B) Any person having been stopped from installing electrical work as outlined in Section 150.063 shall, when securing the permit to continue, pay double the permit fees as a penalty. (Ord. 6522, passed 9/16/10)

§ 150.065 PERMIT FEES

All fees for inspection shall be in accordance with schedules under Section 150.140.

§ 150.066 ADOPTION BY REFERENCE AMENDMENTS, ADDITIONS, AND DELETIONS

(A) The National Electrical Code (2008 2011 Edition), as amended, is adopted by reference as modified by this Chapter.

In the event any provisions, articles, wording, and the like, of the National Electrical Code (2008 2011 Edition), as amended, are in conflict with any ordinances, amendments, and/or addendums, as recognized and approved by the Electrical Commission of the Village of Lombard and/or as adopted by the Village of Lombard, or in conflict with the state law, the most restrictive provisions, articles, wording, and the like, shall prevail.

Wiring methods and/or materials listed by the National Electrical Code (2008 2011 Edition), but amended, deleted, prohibited or requiring Special Expressed Written Permission (SEWP) by this Chapter as noted in Subsections (B), (C), (D) below shall be considered to be amended, deleted, prohibited or requiring Special Expressed Written Permission (SEWP) where ever and there after mentioned or referenced in the National Electrical Code (2008 2011 Edition).

(B) The following articles, or portions thereof, of the National Electric Code (2008 2011 Edition) shall be deleted for the purpose of this Chapter:

Section 230.40. Ex.(3)

Delete Exception No. 3

Section 230.41. Ex.(4)

Aluminum wire not allowed

Article 320

Armored Cable: Type AC

Article 322

Flat Cable Assemblies: Type FC

Article 324

Flat Conductor Cable: Type FCC

Article 328

Medium Voltage Cable: Type MV

Article 334

Nonmetallic Sheathed Cable: Type NM, NMC, & NMS

Article 338

Service Entrance Cable: Type SE & USE

Article 362

Electrical Nonmetallic Tubing: Type ENT

Article 378

Nonmetallic-Wireways

Article 382

Nonmetallic Extensions

Article 388

Surface Nonmetallic Raceways

Article 394

Concealed Knob & Tube

Article 396

Messenger Supported Wiring

Article 398

Open-Wiring on Insulators

Table 310.15 (B) (6)

120/240 Volt, 3 wire, Single Phase Dwelling Services and Feeders Delete entire table

(C) Special Expressed Written Permission. Construction allowed by the following Articles of the National Electrical Code (2008 Edition) shall be permitted with the Special Expressed Written Permission (SEWP) of the Chief Electrical Inspector of the Building Division, and only in those instances where the conditions and standards that may be applicable to such construction are safe and existent, as determined by the Chief Electrical Inspector.

Article 330

Metal Clad Cable: Type MC when extended a length of greater twenty (20) feet, per circuit.

Article 340

Type UF

Article 352

Type RNC (See also Subsection (D))

Article 388

Surface Nonmetallic Raceways

Article 392

Cable Trays (See also Subsection (D))

- C) Certain constructions recognized by the National Electrical Code (NEC) shall only be permitted with the Special Expressed Written Permission (SEWP) of the Building Division of the Community Development Department.
- (D) The following Articles or Sections the National Electric Code (2008 2011 Edition) are amended as follows:

Section 110.14 Electrical Connections. (Add the following:)

- (A) Terminals. The use of stab type screwless pressure terminals of the conductor push-in type is prohibited.
- (B) Splices. The use of device terminals for splicing is strictly prohibited.

Section 110.26 Spaces About Electric Equipment. (Add the following:)

(A) Dead Front Assemblies – When in the judgment of the Chief Electrical Inspector or his/her designee, the conditions of the installation or the equipment being installed or modified require additional clearances at front, sides or rear of electrical equipment, such additional clearances shall be provided.

Section 210.6 Branch Circuit Voltage-Limitations. (Add-the following:)

(C) 277 volts to-ground. Luminaires shall be mounted not-less than 8' above the finished floor, measured at their lowest point.

— Wall switching shall not exceed 150 volts to ground. All switching mechanisms shall be in listed enclosures. Wiring in concealed spaces shall be in conduit (in listed enclosures). All wall switching shall be installed only in one of the following methods:

Low voltage relay switches, panel-board-switches, SWD rated circuit breakers or approved 277 volt switching mechanisms shall be installed in listed enclosures. All wiring shall be in conduit unless Class 2, accessible and approved by the Electrical Inspector.

<u>Section 210.19</u> Conductors – Minimum Ampacity and Size. (Add the following:)

(1) General. All branch circuits shall be wired with copper conductors only.

Article 210

III. Required Outlets

Section 210.52 (G) (3) Where an installation includes a sump pump or pumps and an ejector pump or pumps, each pump shall be provided an Individual Branch Circuit (dedicated circuit) compliant with Section 210.21(B)('), (2) and (3). That is, a receptacle with a rating of not less than the branch circuit rating (usually 20 amperes) and compliant with Section 210.8, (GFCI protected) and with Section 406.11, TR (Tamper Resistant). Where in wet locations Section 406.9(B) WR (Weather Resistant) outlets are required in addition to "In Use" covers.

Section 230.1 Scope. (Add the following:)

Whenever a service is revised or replaced, all current pertinent provisions of this Chapter shall apply.

In residential occupancies, the laundry circuit required by Article 210.11 (C)(2) of the National Electrical Code (2008 Edition) shall be provided.

All service and feeder conductors shall be copper. It is intended that all electrical conductors be copper.

Section 230.42 Size and Rating. (Add the following:)

(A)—General. Service conductors shall be all-copper. 100 ampere services requires AWG 3 copper conductors, 200 ampere service requires AWG 3/0 copper conductors.

Section 230.43 Wiring Methods for 600 Volts, Nominal, or Less. (Delete the following methods:)

(1) Open Wiring on insulators; (2) TYPE IGS Cable; (5) Electrical metallic tubing; (6) Electrical Nonmetallic Tubing; (7) Service-entrance cables; (13) Type MC cable; (14) Mineral-insulated, metal-sheathed cable; (15) Flexible metal conduit and LFMC, Liquidtight flexible metal conduit; (16) Liquid tight flexible nonmetallic conduit; (17) High density polyethylene conduit (HDPE); (18) Nonmetallic underground conduit with conductors (NUCC); (19) Reinforced thermosetting resin conduit (RTRC).

Section 230.70 General.

(A) Location. (1) Readily Accessible Location. (Amend to read as follows:) The service disconnecting means shall be installed at a readily accessible location either outside of a

building or structure, or inside nearest the point of entrance of the service conductors, in any case within five (5) feet of conduit and conductor entrance to the building.

Section 230.71 Maximum Number of Disconnects. (Replace NEC text with the following:)

- (A) General. The service disconnecting means for each service permitted by Section 230.2, or for each set of service-entrance conductors permitted by Section 230.40, Exception Nos. 1, 3, 4 or 5, shall consist of one main switch or circuit breaker. There shall be no more than six (6) main disconnects grouped in any one location. For the purpose of this section, disconnecting means installed as part of listed equipment and used solely for the following shall not be considered a service disconnecting means:
 - (1) Power monitoring equipment
 - (2) Surge-protective device(s)
 - (3) Control circuit of the ground-fault protection system
 - (4) Power-operable service disconnecting means

Section 250.64 Grounding Electrode Conductor Installation. (Delete (A) and (B) and replace with the following:)

- (A) Only Copper grounding and bonding conductors are allowed.
- (B) Securing and Protection from Physical Damage. A grounding electrode conductor or its enclosure shall be securely fastened to the surface on which it is carried. All grounding electrode conductors shall be in an approved raceway. The following raceways shall be approved: rigid metal conduit, intermediate metal conduit, rigid nonmetallic conduit (Schedule 80) for exterior use; electrical metallic tubing or cable armor for interior use. (C), (D), (E), & (F), (Retain NEC text.)

Article 340 (Add the following:)

UF & BC Cable: Type UF

Approved for use only in exterior underground installations without Special Expressed Written Permission (SEWP); all other uses require SEWP. Article 340 otherwise applies entirely.

Article 348 (Add the following:)

Flexible Metal Conduit: Type FMC

Not approved for use as a general wiring method. Article 348 otherwise applies

Article 350 (Add the following:)

entirely.

Liquidtight Flexible Metal Conduit: Type LFMC

Not approved for use as a general wiring method. Article 350 otherwise applies entirely.

Article 352 (Add the following:)

Rigid Nonmetallic conduit: Type RNC

Not approved for use as a general wiring method. Approved for use only in exterior underground installations without Special Expressed Written Permission (SEWP); all other uses require (SEWP). Article 352 otherwise applies entirely.

Article 356 (Add the following:)

Liquidtight Flexible Nonmetallic conduit: Type LFNC

Not approved as a general wiring method. Approved for use only in exterior installations and as listed and marked as suitable for the purpose. Article 356 otherwise applies entirely.

Article 366 (Add the following:)

Auxiliary gutters: Metal only are allowed. Article 366 otherwise applies entirely.

Article 392 (Add the following:)

Cable Trays

Section 392.3 Uses Permitted. (Amend-first-sentence-to-read:)

Cable trays shall be permitted to be used as a support system for (Delete: Service conductors, feeders, branch circuits) communications circuits, and signaling circuits unless conductors are installed in conduit. Article 392. otherwise applies entirely.

Section 410.2

Definitions.

Closet Storage Space: (Add the following:)

In residential occupancies, all clothes closets over six (6) square feet shall have an approved (listed for use) luminaire installed.

Section 545.4 Manufactured Building – Wiring methods.

(Replace (A) and (B) with the following):

Only wiring methods and materials previously approved by this Chapter shall be authorized for use in manufactured buildings, except that those constructions which require Special Expressed Written Permission (SEWP) for use may be considered on a case by case basis.

Section 600.21 Ballasts, Transformers and Electronic Power Supplies.

(A) Accessibility. (Add the following:)

A code approved enclosure designed for that purpose including a self contained disconnecting means or a disconnecting means installed within (3) three feet and in sight is required.

Section 605.3 (Add after code text:)

The separation of tele communications, data, video and other Class 1, Class 2 or Class 3 wiring systems from electric light, power and other wiring formats as listed in Article 800; 800.133 (A) (1) (C) and elsewhere throughout National Electrical Code (2008 Edition) shall be maintained.

Optional components or alternate methods may be required.

(Ord. 3267, passed 6/21/90; Ord. 5481, passed 5/6/04; Ord. 6522, passed 9/16/10; Ord. 6832, passed 5/17/13)

SECTION 2: That this ordinance shall be in full force and effect on November 1, 2015 after its passage, approval and publication as provided by law.

Passed on first reading this 3rd day of October, 2015.

Ayes: Trustee Whittington, Fugiel, Foltyniewicz, Johnston, and Pike

Nays: None

Absent: Trustee Ware

First reading waived by action of the Board of Trustees this day of , 2015.

Passed on second reading this 15th day of October, 2015.

Ayes: Trustee Whittington, Fugiel, Johnston, Pike and Ware

Nays: None

Absent: Trustee Foltyniewicz

Approved this 15th day of October, 2015.

Keith T. Giagnorio Village President

ATTEST:

Sharon Kuderna

Village Clerk

Published by me in pamphlet form on this 16th day of October, 2015.

Sharon Kuderna

Village Clerk