

VILLAGE OF DOWNERS GROVE
REPORT FOR THE VILLAGE COUNCIL WORKSHOP
OCTOBER 6, 2009 AGENDA

SUBJECT:	TYPE:	SUBMITTED BY:
Adoption of Updated Building Codes and a Locally Administered Elevator Safety Program.	✓ Resolution ✓ Ordinance Motion Discussion Only	Tom Dabareiner, AICP Community Development Director

SYNOPSIS

Ordinances have been prepared adopting the International Code Council's (ICC) 2006 series of building and fire codes, the 2008 National Electrical Code, and updated amendments to the 2004 State of Illinois Plumbing Code. Additionally, a resolution has been prepared entering the Village into an agreement with the State of Illinois for locally administering an Elevator Safety Program.

STRATEGIC PLAN ALIGNMENT

The Five Year Plan and Goals for 2008-2013 identified *Exceptional Municipal Organization* with a supporting objective of *Providing Top Quality Core Services Responsive to Current and Future Community and Citizen Needs*. Also identified was the goal of *Preservation of Our Residential and Neighborhood Character* with a supporting objective of *Homes and Rental Units Up to Code*.

FISCAL IMPACT

N/A

UPDATE & RECOMMENDATION

This item was discussed at the September 22, 2009 workshop. During that meeting, the Village Council requested additional information pertaining to several items. These items are summarized below:

- Whether the use of panning and ductless returns is permitted by the 2009 Energy Conservation Code.
- When the proposed building code updates would go into effect.
- Whether the proposed building codes are more or less restrictive regarding veneer vapor barriers

Regarding the use of panning and ductless returns, a new state law mandates the use of the 2009 Energy Conservation Code. Section 403.2 deals with ducts. Under 403.2.3, "[b]uilding framing cavities shall not be used as supply ducts." However, panning may support return air flow only where the building cavity is completely sealed (403.2.2). This would require additional inspections and observation by Village inspectors.

In addition, the IRC 2006 code further restricts the practice of panning to single floor use. While an HVAC unit would be allowed return air flow via panning from the first floor, a second HVAC unit would be needed to serve a second floor. Based on this, it is likely less expensive and problematic to provide for ducted return air flow to a single HVAC unit. This concern, along with other potential issues indicated in staff's research (centering on mold, fire and cleanliness concerns) was and remains the basis for the recommended amendment. While the recommendation to allow the use of building cavities for heating or cooling non-habitable areas remains part of staff's proposed code amendments, the 2009 Energy Conservation Code now limits this to return air flow only.

Regarding the effective date of the proposed updates to the building codes, upon approval by the Village Council, the updated codes would be effective after 30 days.

Regarding veneer vapor barriers, in the 2007 update to the IRC's 2006 codes, several definitions were changed. Two of these dealt with "Adhered Stone or Masonry Veneer" and "Vapor Retarder Class." In both cases, the new definitions reflect advancements in the materials or installation process, or improvements in the industry's understanding of moisture removal. In both cases the new definitions mean new or refined steps are available to achieve an equal or superior outcome, compared with earlier versions of the building code.

Staff recommends approval on the October 6, 2009 active agenda.

BACKGROUND

The Village's current building code was adopted in April, 2005. The building code that was adopted at that time was the 2000 edition of the ICC codes. Staff is proposing that the Village update to the 2006 edition of the ICC's building and fire codes, and the *2008 National Electrical Code*. These codes would apply to all commercial and residential buildings throughout the community. The 2006 editions are the most widely adopted codes in the western suburbs. Adoption of these codes would be consistent with comparable communities.

Additionally, since 1985, the Village has operated a local elevator safety program with Elevator Inspection Services, Inc. (EIS). This program has consisted of performing plan reviews and inspections for new and existing elevators and other types of vertical conveyances such as escalators, hoists, and platform lifts through a building permit process and annual inspections. The State of Illinois has more recently passed legislation requiring a municipality to enter into an agreement by resolution with The Office of the State Fire Marshall (OSFM) of Illinois to continue to operate a locally administered program and indicate compliance with standards at least as stringent as those of the State. The legislation was prompted by elevator accidents that had occurred in rural areas of the State that had no program in place. Currently, 166 jurisdictions, primarily in the Chicagoland area, have opted to enter into this agreement. If a municipality chose not to operate a local program, the State would directly regulate vertical conveyances within a municipality. Agreeing to the resolution would mean no change to the Village's elevator inspection program and would maintain greater scrutiny than afforded through the state program.

The specific codes targeted for adoption are:

- *2006 International Residential Code* – governs construction of one and two-family residential buildings
- *2006 International Building Code* – governs construction of all other use types
- *2006 Property Maintenance Code* – governs maintenance of all existing buildings and properties.
- *2006 International Fire Code*- governs construction and maintenance of life safety systems in commercial and multi-family buildings
- *2009 Energy Conservation Code*,
- *2006 Fuel Gas Code*,
- *2006 Mechanical Code*,
- *2008 National Electrical Code* - govern new construction in all building types
- (Note: Additional Codes already in place are the *2004 State of Illinois Plumbing Code* and the *2003 NFPA Life Safety Code*)
- Nine industry standards for vertical conveyances from ANSI, ASME, and ASCE, consistent with State requirements – governs the installation and inspection of new and existing elevators, escalators, platform lifts, hoists, and dumbwaiters

Staff emphasized the following key concepts and strategies with the code adoption proposals:

- Align all regulations with specific Strategic Plan goals.
- Produce code books that are as clear and user friendly as possible.
- Reduce the number of local amendments.
- Maintain consistency with existing ordinance provisions of the Municipal Code and provide cross references.
- Enhance clarification of the code books as written.
- Maintain and provide code provisions that address local construction practices.
- Only include amendments that measure up favorably to a benefit/cost analysis.
- Align the Village's regulations with comparable communities.
- Obtain buy-in from the area builders, developers and property managers.

The following list highlights some of the specific key components and that will be accomplished with the proposed updates:

- Several residential construction existing local amendments have been eliminated in order to follow the baseline codes representing recognized industry standards.
- Sections have been reorganized and enhanced to increase the ability to locate and understand regulations for commonly reoccurring questions.
- Several cross references to State regulations, other code book sections, and the Municipal Code have been incorporated to increase usability of all documents.
- Conflicting provisions between various code books have been eliminated as well as provisions that do not apply to this geographic area of the country.
- One overall updated administrative section will exist in the Municipal Code that applies to all the various code books being adopted.
- Some updated definitions and code provisions from the 2007 ICC code development supplement have been incorporated to increase accuracy, add clarity, and assist with code enforcement activities.
- Long standing and recognized enhanced fire safety regulations have been maintained.
- Updates and clarifications have been provided for the pre-occupancy ordinance compliance approval procedure.
- Clarification on materials that can be used for construction in certain zoning districts such as the downtown area has been added.
- State authorized standards have been incorporated that assist with sizing water service supply lines for existing residences that are being remodeled.

Staff requested input on the proposed update from the Downers Grove Chamber of Commerce, contractors, builders, developers, architects and property managers. Staff representatives met with these individuals on three occasions at the Downers Grove Chamber of Commerce. The IRC proposed amendments were presented on May 14, 2009. The Mechanical, Fuel Gas, Energy Conservation, and Property Maintenance Codes were presented on May 21, 2009. The International Building Code, Electrical, Plumbing, and Fire Code were presented on July 16, 2009.

Based on input from this group of stakeholders, some modifications were made to the proposed codes. The adjustments centered on clarifying proposed language. There were helpful dialogues and no unaddressed or significant objections to the updates or the proposed amendments. Staff recommends approval of the building codes as proposed.

ATTACHMENT
Ordinance

ORDINANCE NO. _____

**AN ORDINANCE ADOPTING THE 2008 NATIONAL ELECTRICAL CODE
AND AMENDMENTS THERETO**

BE IT ORDAINED by the Village Council of the Village of Downers Grove in DuPage County, Illinois, as follows: (Additions are indicated by ~~shading~~/underline; deletions by ~~strikeout~~):

Section 1. Section 10.1ART. is hereby renumbered to be Section 10.100.ART.

10.1ART. Article I. GENERAL

NOTE: For state law as to authority of municipality to regulate the installation, alteration and use of electrical equipment, see Ill. Comp. Stat., ch. 65, § 5/11-37-2.

Section 2. Section 10.1SEC. is hereby repealed in its entirety

10.1SEC. Definitions.

~~For the purpose of this Chapter, the following words and phrases shall have the meanings respectively ascribed to them by this section:~~

~~*Electrical equipment.** Conductors and equipment installed for the utilization of electricity supplied for light, heat or power, but does not include radio apparatus or equipment for the wireless reception of sounds and signals except as provided for in Section 10-30, and does not include apparatus, conductors and other equipment installed for or by public utilities, including common carriers which are under the jurisdiction of the state commerce commission, for use in their operation as public utilities.~~

~~*Luminaires.* Any energy consuming electrical unit which is made a permanent and integral part of the electrical lighting and power system. Electric motors of one half horsepower and less and generators and transformers of one half kilo volt ampere and less are to be considered as Luminaires. Clusters and drops shall each be counted as one Luminaire.~~

~~*Motors, generators, transformers.* All motors rated at more than one half horsepower and all generators and transformers rated at more than one half kilo volt ampere.~~

~~*Outlet.* A point in the wiring system at which energy is taken to supply fixtures, receptacles, appliances, motors not larger than one half horsepower, generators and transformers not larger than one half kilo volt ampere and energy consuming equipment generally; also switches for the control of other outlets.~~

~~*Room.* All habitable rooms, including bath and powder rooms, basements, utility rooms, attics, garages and accessory buildings in which outlets are installed.~~

~~(Ord. No. 662, § 1; Ord. No. 1778, § 4; Ord. No. 2876, § 5.)~~

* For similar state law, see Ill. Comp. Stat., ch. 65, § 5/11-37-1.

Section 3. Section 10.2. is hereby renumbered to be Section 10.101.

10.2. Compliance with Chapter required.

Upon the adoption by ordinance of standards and specifications, rules and regulations and fees for the installation, alteration and use of electrical equipment, the same shall become operative, and thereafter no electrical equipment shall be installed or altered except upon a permit approved by the Director of Community Development or the electrical inspector. The Director of Community Development or the electrical inspector shall approve permits for such installation and alterations of electrical equipment in all cases where application shall have been made in accordance with the rules and regulations established. The

Director of Community Development or the electrical inspector shall inspect all such electrical equipment installed or altered, and shall require that it conform to the standards and specifications applicable thereto which have been recommended and adopted as provided in this Chapter. These requirements specify minimum acceptable electrical equipment and wiring methods. Other equipment and methods not specified may be approved for use by the electrical inspector in writing. (Ord. No. 662, § 7; Ord. No. 2876, § 5.)

Section 4. Section 10.5. is hereby renumbered to be Section 10.102.

10.5. Changes in existing wiring.

It shall be unlawful for any person in any way to cut, disturb, alter or change any electrical wiring or to permit such electrical wiring to be cut, disturbed, altered or changed unless done in conformity with the provisions of this Chapter. Where a building is undergoing remodeling, any changes to be made in the electrical installation shall first have the approval of the Director of Community Development or the electrical inspector before work is commenced. (Ord. No. 662, § 17; Ord. No. 2876, § 5.)

Section 5. Section 10.7. is hereby renumbered to be Section 10.103.

10.7. Village not liable for electrical work.

This Chapter shall not be construed to relieve from or lessen the responsibility of any person owning, operating or installing any electrical wires, appliances, apparatus, construction or equipment for damages to any one injured by any defect therein by reason of the inspections authorized herein or the certificate of inspection issued by the Director of Community Development, electrical inspector or the Community Development Department; nor shall the Village be held liable for any damages resulting from the enforcement of the provisions of this Chapter. (Ord. No. 662, § 13; Ord. No. 2876, § 5.)

Section 6. That Section 10.200.ART. is hereby added to read as follows:

10.200.ART. Article II. CODE OFFICIAL

Section 7. Section 10.12. is hereby renumbered to be Section 10.201.

10.12. Electrical Inspector--Appointment;Conflicting outside interests.

The electrical inspector shall be appointed by the Village Manager. It shall be unlawful for the electrical inspector, except in the performance of his/her official duties, to engage in the business of the installation, alteration, maintenance or sale of electrical material, whether directly or indirectly, and he shall have no financial interest in any concern engaged in such business at any time while holding the office of electrical inspector.

Any violation of this section by the electrical inspector shall be sufficient cause for his/her removal from office. (Ord. No. 662, § 3.)

Section 8. Section 10.20. is hereby renumbered to be Section 10.202.

10.20. Right of entry of inspectors.

The electrical inspector shall have the right during reasonable hours to enter any building in the discharge of his/her official duties, or for the purpose of making any inspection or test of the installation or alteration of electrical equipment contained therein, or for the purpose of reinspecting present wiring installations to determine whether or not such wiring installations conform to the provisions of this Chapter, and shall have the authority to cause the turning off of all electrical currents and to cut or disconnect in cases

of emergency, any wire where such electrical currents are dangerous to life or property or may interfere with the work of the fire department. The provisions for inspection of work authorized by the permits issued in accordance with this Chapter shall not be construed as prohibiting the inspection of any electrical equipment installed whenever the electrical inspector shall determine that the public safety requires it. (Ord. No. 662, § 8.)

Section 9. Section 10.13. is hereby repealed in its entirety

10.13. Reserved.

~~(Ord. No. 662, § 10.)~~

Section 10. Section 10.14. is hereby renumbered to be Section 10.203.

10.14. Impersonation of an inspector.

———No person who is not a lawful Village electrical inspector shall impersonate an electrical inspector of the Community Development Department. (Ord. No. 662, § 15; Ord. No. 2876, § 5.)

Section 11. That Section 10.300.ART. is hereby added to read as follows:

10.300.ART. Article III. PERMITS

Section 12. Section 10.3. is hereby renumbered to be Section 10.301.

10.3. Permit to install electrical equipment--Required prior to commencing work; persons eligible.

(a) No person shall install, alter or repair any electrical conduits, electrical wires, equipment or apparatus in any building or structure for which a permit is required until such permit shall have been secured.

(b) Persons who may perform work authorized by a permit issued pursuant to the provisions of this Chapter are the following:

(1) Electrical contractors and technicians who have satisfied the requirements of Sections 8-35 through 8-39 of the Municipal Code.

~~(2) A maintenance electrician who is employed to execute or supervise the maintenance and repair of an electric system and any apparatus that is connected to such system on the premises of the person employing such maintenance electrician.~~

~~(3) A qualified home owner, provided that such permit shall be only for electrical work on residential premises owned and occupied by the home owner, and further provided that he/she has sufficient knowledge and technical training to perform the installation, alteration, repair and maintenance of electrical wiring and equipment authorized by the permit by passing a written test given by the Community Development Department with a minimum score of seventy percent correct. If the home is to be remodeled before the owner moves in, there must be proof that the applicant/owner will reside in the home for a period of not less than (6) months.~~ (Ord. No. 662, § 11; Ord. No. 2871, § 2.)

Section 13. Section 10.9. is hereby renumbered to be Section 10.302.

10.9. Suspension of permits.

The Director of Community Development or the electrical inspector may suspend any permit for work being executed contrary to the provisions of this Chapter, and may reinstate the suspended permit after the violations have been corrected or rectified. (Ord. No. 662, § 22; Ord. No. 2876, § 5.)

Section 14. Section 10.8. is hereby renumbered to be Section 10.303.

10.8. Payment of fees and issuance of permits generally.

All fees under this Chapter shall be paid to the collector of the Village, and all permits shall be issued by the Director of Community Development, by the electrical inspector or his/her duly authorized representative.

All permits shall be for a period of one (1) year; from the date of issuance. All extensions of permit time shall be calculated at twenty-five percent (25%) of the original total permit fee and shall extend the life of the permit for a six (6) month period. Extensions shall be requested in writing with justifiable cause demonstrated.

No fees shall be refunded when a permit has lapsed after work is started. When a permit is revoked at the request of the applicant prior to lapsing due to time limits, and no work has been done, all but a basic fee to cover costs incurred by the building department and the plan review fee may be refunded. (Ord. No. 662, § 6; Ord. No. 2393, § 5; Ord. No. 2876, § 5.)

Section 15. That Section 10.400.ART. is hereby added to read as follows:

10.400.ART. Article IV. STOP WORK ORDER

Section 16. Section 10.4. is hereby renumbered to be Section 10.401.

10.4. Work to be stopped until issuance.

In case any work is begun on the installation of electrical conduits, raceways of the installation, alterations or repair of electrical wires or apparatus in any building or structure without a permit authorizing the same, the work shall be stopped until the necessary permit is issued and one hundred percent (100%) of a permit fee shall be added to the permit fee in accordance with Section 1.16 of the Downers Grove Municipal Code. (Ord. No. 662, § 11.)

Section 17. Section 10.6. is hereby repealed in its entirety

10.6. Wiring or equipment damaged by fire or flood.

~~It shall be unlawful to alter or repair any electrical wires or apparatus damaged directly or indirectly by fire or flood without first obtaining a permit for such work in accordance with the provisions of this Chapter. (Ord. No. 662, § 19.)~~

Section 18. Section 10.10. is hereby repealed in its entirety

10.10. Reserved.

~~(Ord. No. 662, § 3.)~~

Section 19. Section 10.11. is hereby repealed in its entirety

10.11. Reserved.

~~(Ord. No. 662, § 2.)~~

Section 20. Section 10.15. is hereby repealed in its entirety

10.15. Records.

~~—The Community Development Department shall keep complete records of all permits issued and inspections made and other official work performed under the provisions of this Chapter. (Ord. No. 662, § 12; Ord. No. 2876, § 5.)—~~

Section 21. Section 10.15ART. is hereby renumbered to be Section 10.500.ART.

10.15ART. Article V. INSPECTIONS

NOTE: For state law as to inspection of electrical equipment, see Ill. Comp. Stat. ch 65, §§ 5/11-37-1 to 5/11-37-4.

Section 22. Section 10.16. is hereby renumbered to be Section 10.501.

10.16. Certificates of inspection--Required; contents.

Upon the completion of the wiring or the electrical installation in or on any building or structure, it shall be the duty of the person doing the work to request an inspection by the Community Development Department. If such wiring or electrical installation conforms to the requirements of this Chapter, a written certificate of satisfactory inspection shall be issued. One (1) copy of the certificate shall be delivered to the person which is to furnish electrical service, and one (1) copy shall be retained in the Village files. The certificate of inspection shall contain the date of such inspection, the location or address of the wiring or electrical installation by street number or lot number, the name of the person actually completing the work, and the name of the person for whom the wiring or electrical installation work was performed.

Each job for which a permit is issued shall be entitled to one (1) rough inspection and one (1) final inspection and each business or multiple family dwelling which is licensed by the Village of Downers Grove shall be entitled to one (1) inspection and one (1) re-inspection per license period. ~~The fee for additional re-inspections made necessary due to failure to correct violations discovered during the initial inspections shall be fifty dollars (\$50.00) per re-inspection. (Ord. No. 662, § 9; Ord. No. 2876, § 5.)~~

Section 23. Section 10.17. is hereby renumbered to be Section 10.502.

10.17. Electrical Service Installations.

~~Same—Authorization for use of current on certain installations.~~

~~—It shall be unlawful for any person to install electrical energy recording meters on any electrical equipment that has been installed or connect any electric distribution system or circuit to an electricity system prior to the issuance by the electrical inspector of a temporary current permit or a certificate of inspection authorizing the use of current on such installation. It shall be unlawful for any person to install electrical energy recording meters on any electrical equipment that has been installed or connect any electric distribution system or circuit to an electrical system prior to the issuance by the Village of a report of inspection authorizing the use of current on such installation.~~

~~(Ord. No. 662, § 9.)~~

Section 24. Section 10.18. is hereby renumbered to be Section 10.503.

10.18. Electrical System Activation.

~~Prerequisites to issuance.~~

~~—In no case shall the Community Development Department issue a certificate of inspection unless the electrical power or heating installations and all apparatus, wire or appurtenances thereto attached conform~~

~~with the regulations of this Chapter; and electric current shall not be supplied to any such electrical installation by any person until such certificate of satisfactory inspection shall be issued and delivered to the person contemplated to furnish electrical current. Upon approval by inspection of an electrical system installation, the Community Development Department shall provide a notice of approval. No electrical system shall be energized until the notice of approval has been issued.~~ (Ord. No. 662, § 9; Ord. No. 2876, § 5.)

Section 25. Section 10.19. is hereby renumbered to be Section 10.504.

10.19. Notice of unsafe systems.

~~Seals.~~

~~_____ The electrical inspector, Director of Community Development or other electrical inspectors who may be designated are empowered to attach to electrical cabinets and equipment an official notice or seal to prevent use of electricity, and it shall be unlawful for any other person to attach such seal, or to break, change, destroy, tear, mutilate, cover or otherwise deface or injure any such official notice or seal posted by the Community Development Department. The Director of Community Development or his designee are authorized to attach to electrical cabinets and equipment a notification indicating the system is deemed unsafe and shall not be energized prior to an approval being given by the Village. It shall be unlawful for any persons to damage, remove or destroy this notification or seal without consent from the Village.~~ (Ord. No. 662, § 16; Ord. No. 2876, § 5).

Section 26. Section 10.24.1. is hereby renumbered to be Section 10.505.

10.24.1. Public utility cables; high rise buildings.

(A) ~~A public utility company shall be allowed to install a high voltage riser systems in a building over six hundred volts in high rise buildings, or any other building, provided the following requirements are met:~~

- ~~_____ (1) Aluminum or copper cables shall be installed by a public utility company and only on the primary side of each transformer;~~
- ~~_____ (2) Aluminum or copper cable shall be terminated with high pressure lugs;~~
- ~~_____ (3) All transformers and cables shall be enclosed in a minimum two hour masonry enclosure with an appropriate fire door as required in Table 714.2 of the 2002 International Building Code. The cable in the enclosure does not need to be installed in a conduit system;~~
- ~~_____ (4) A main shunt control panel shall be installed in the fire control room and shall contain an indicator light for power and HVAC, and a switch for each floor. The shunt trip panel shall be boxed in with a glass front and the box shall contain a locking mechanism. The front of the panel shall be constructed as shown in Diagram 1.~~

~~Diagram #1~~

Floor	Switch	Power	HVAC
10	0	0	0
9	0	0	0
8	0	0	0
7	0	0	0
6	0	0	0
5	0	0	0
4	0	0	0
3	0	0	0
2	0	0	0
1	0	0	0

~~_____ Each switch on the main shunt control panel shall:~~

- ~~_____ (a) Shut off all power on that floor and the power on the floor either directly above or directly below the floor in question; and~~
- ~~_____ (b) Shut off the HVAC on that floor and the HVAC on two other floors; either two above, two~~

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below, or one floor above and one floor below the floor in question.

The indicator light for power and HVAC on the main floor will light up when the switch is activated. The lights for power and HVAC for any other floor affected will also light up as shown on Diagram 2. The emergency generator power system (for emergency and standby power and venting for smoke and building pressurization) shall not be connected to the shunt trip system.

Diagram #2

Floor	Switch	Power	HVAC
10	0	0	0
9	0	0	0
8	0	0	0
7	0	0	0
6	0	0	0
5	0	0	•
4	0	•	•
3	0	•	•
2	0	0	0
1	0	0	0

The switch has been activated for floor number 3. The lights go on for light and HVAC for floor #3. The lights for light and HVAC on floor #4 and the light for HVAC goes on for floor #5.

(5) There shall be a single 125V 15A receptacle at each landing runoff of the emergency generator. This receptacle shall be of a NEMA type L5-15-R.

(1) The utility company may install aluminum or copper cables up to and only on the primary side of each transformer. The cables must be terminated with high pressure lugs.

(2) All cables and transformers shall be enclosed in a minimum of a two hour rated masonry enclosure with rated openings.

(B) For high rise buildings, a main shunt control panel shall be installed in the fire control room. For each floor, the panel shall provide a shut off switch for all systems, and a separate switch with indicator light for the powers supply for all HVAC systems, and a separate switch with indicator light for all other electrical systems. The glass front panel shall contain a locking mechanism and a diagram on the glass indicating the floor level and switching arrangement. All circuiting and switching arrangements will be subject to review and approval by the code official for the specific building conditions.

(C) A 125V-15A receptacle shall be provided at each stairway landing of a high rise building. This receptacle shall be of a NEMA type L5-20-R and shall be connected to the emergency generator system. (Ord. No. 3403, § 5.)

Section 27. That Section 10.600.ART. is hereby added to read as follows:

10.600.ART. Article IX. NATIONAL ELECTRIC CODE

Section 28. Section 10.22. is hereby renumbered to be Section 10.601.

10.22. 2008 National Electrical Code - Adopted.

There is hereby adopted, for the purpose of establishing rules and regulations to govern any electrical system or equipment or method of installation thereof not specifically covered by this Chapter that certain Electrical Code known as the National Electrical Code recommended by the National Fire Protection Association, being particularly the 2002~~2008~~2008 edition thereof in its entirety, save and except such portions as are hereinafter deleted, modified or amended, and the same is hereby adopted and incorporated as fully as if set out at length herein. All references to the National Electrical Code in other sections in this Chapter shall mean the edition referred to in this section. At least one copy of said Code, including such amendments to it as shall be enacted, shall be filed in the office of the Village Clerk, and additional copies shall be available in the Community Development Department of the Village. (Ord. No. 662, § 33; Ord. No. 1778, §§ 1, 3;

2008 Electrical Code

Ord. No. 2178, § 1; Ord. No. 2876, §§ 2, 5; Ord. No. 3403, § 2.)

NOTE: For state law as to adoption of codes by reference, see Ill. Comp. Stat., ch. 65, § 5/1-3-2.

Section 29. That Section 10.602. is hereby added to read as follows:

10.602. Definitions.

See Article 100 Definitions of the 2008 Electrical Code.

Section 30. Section 10.23. is hereby renumbered to be Section 10.603.

10.23. National Electrical Code - Amendments.

The 2008 National Electrical Code is amended by deleting therefrom the following provisions in their entirety as follows:

~~(b) Section 110-26(e) is amended by adding the following exception replacing the words "less than 2.0 (6 1/2 feet) in the Exception with the following:~~

~~"is not less than five (5) feet." "but not less than 5 feet from the bottom of the joist to the top of the concrete floor."~~

~~(e) Section 110-26(f)(1)(a) and (b) is amended by deleting the same in its entirety and substituting in lieu thereof the following:~~

~~Section 110-26(f)(1) Dedicated Electrical Space;~~

~~The space equal to the width and depth of the equipment and extending from the floor to the next structural ceiling or 25 feet which ever is lower, shall be dedicated to the electrical installation. No Foreign Systems shall be placed in the area above the dedicated electrical space. The distance above electrical equipment to the next structural floor shall not be less than 6 feet.~~

~~(d) Section 110.31 is amended by deleting the following language from the last two sentences of the second paragraph and by substituting in lieu thereof the following:~~

~~"and a 300 mm (1 ft.) or more extension utilizing three or more strands of barbed wire or equivalent. A fence shall not be less than seven (7) feet in height. The distance from the fence to live parts shall not be less than given in Table 110.31."~~

Section 210.70(A)(3) is amended by deleting the following phrase from the end of the first sentence:

"where these spaces are used for storage or containing equipment requiring servicing".

Section 210.70(A)(3) is further amended by deleting the last sentence in its entirety.

~~(e) Section 210-8(a)(1) & (5) is amended by deleting the same in its entirety.~~

Section 220.40 is amended by adding the following at the end of the section:

220.40 General.

(A) The minimum size service panel for a new single family residence or service upgrade shall be a 200 amp, 30 circuit panel.

(B) The minimum size service panel for any new or remodeled building other than single-family shall be a 100 amp, 20 circuit panel.

~~(f) Section 230-9(A) is amended by deleting the following language therefrom:~~

~~"that are designed to be open"~~

Section 230.31(B) is amended by deleting the same in its entirety and by substituting in lieu thereof the following:

230.31(B) Minimum Size. The conductors shall not be smaller than #3 AWG copper and shall be of type THW or THWN insulation.

Section 230.31 (B) shall be further amended to delete the exception.

Section 230.43 is amended by deleting the same in its entirety and by substituting in lieu thereof the following:

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 type of wiring method used and shall be limited to the following methods:

- (1) Rigid metal conduit
- (2) Rigid nonmetallic conduit Schedule 80 outside of foundation walls

Section 230.70 is amended by adding the following:

230.70 Service equipment disconnecting means:

(D) No live service entrance conductor shall extend over five (5) feet within a building.

(E) Every residential unit shall be provided with a main breaker at the individual meter or the panel. Where there are multiple meters installed, a main breaker for the entire building shall be provided adjacent to the meters.

~~(g)~~ **Section 230-71** is amended by deleting the same in its entirety— and by substituting in lieu thereof the following:

230.71 Maximum Number of Disconnects.

General. In all applications, a single main disconnecting means shall be installed.

~~(h)~~ **Section 230-72(aA)** is amended by deleting the same in its entirety.

~~(i)~~ Section 210-8(A)(4) & (5) is amended by deleting the same in its entirety.

Section 240.80 is amended by adding Section (A) to the end of the paragraph:

240.80 Method of Operation.

(A) No tandem, piggy back or space saver circuit breakers shall be permitted.

Section 300.2 is amended by adding Section (C) to the end of the section:

300.2(C) Raceway Types. Rigid metal conduit (RMC), intermediate metal conduit (IMC) or rigid non-metallic conduit shall be used in all concrete and underground installations.

Section 314.3 is amended by deleting the same in its entirety.

Section 314.7 is amended by deleting (B) and (C) in their entirety.

~~(a)~~ **Articles 320, 322, 324, 326, 330, 332, 334, 336, 338, 340, 352, 354, 356,** are amended by deleting the same in their entirety.

Section 348.10 is amended by adding the following at the end of the sentence:

"in maximum lengths of six (6) feet. "

Section 350.10 is amended by adding the following section:

350.10 Uses Permitted.

(4) LFMC shall be permitted to be used in exposed and concealed location in maximum lengths of six (6) feet.

Section 360.10 is amended by adding the following section:

360.10 Uses Permitted.

(5) FMT shall be permitted to be used in exposed and concealed location in maximum lengths of six (6) feet.

Articles 362, 348, 372, 374, 382, 388, 394, 390, 396, 398, 545, 547, 550, 551, 552, 553, 555, 604 and 605 are amended by deleting the same in their entirety.

Section 408.36 is amended by deleting the last sentence of the first paragraph, Exception No. 1, 2 & 3 and by substituting in lieu thereof the following:

"This overcurrent protective device shall be located within three (3) feet and be readily accessible within sight."

Section 408.36 is further amended by deleting the exceptions.

Section 422.10 is amended by adding the following section:

422.10. Branch Circuit Rating.

(C) Each furnace, heat pump, water heater, air conditioning unit and similar equipment shall be provided with dedicated branch circuits. A disconnecting means shall be provided on or immediately near the equipment.

Section 604.1.1 is added as follows:

604.1.1 Testing Agency Approvals. Assemblies that do not have a recognized testing agency listing and cannot be verified for approved product materials and installation methods shall not be permitted.

(Ord. No. 2178, § 2; Ord. No. 2876, §§ 2, 5; Ord. No. 3403, § 3.)

Section 31. That Section 10.700.ART. is hereby added to read as follows:

10.700.ART. Article VII. FEES

Section 32. Section 10.21. is hereby renumbered to be Section 10.701.

10.21. Fees.

(a) Two inspections shall be made of electrical wiring in all new single-family and multi-family dwellings, or for any complete rewiring of any existing dwelling, one "roughing in" inspection and one final inspection before acceptance. If defective workmanship exists at the time of final inspection, a re-inspection fee of fifty dollars (\$50.00) shall be charged for each additional inspection. The fees to be charged for the two required inspections shall be fifty dollars (\$50.00).

(b) The fees to be charged for repair or remodeling work permits shall be eighty dollars (\$80.00).

(c) Permit fees shall be non-refundable once a permit has been issued.

(Ord. No. 1778, § 2; Ord. No. 3336, § 4; Ord. No. 3378, § 3.)

Section 33. That Section 10.800.ART. is hereby added to read as follows:

10.800.ART. Article VIII. APPEALS

Section 34. That Section 10.801. is hereby added to read as follows:

10.801. Building Board of Appeals.

See Chapter 7, Article IX of the Downers Grove Municipal Code.

Section 35. Section 10.21ART. is hereby repealed in its entirety

10.21ART. Article III. Standards and Specifications

Section 36. Section 10.24. is hereby repealed in its entirety

10.24. Wiring.

~~Notwithstanding any provision in this Article, including the 1993 National Electrical Code to the contrary, wiring shall be installed in conformance with the following requirements where applicable.~~

~~(a) The wiring method employed in all electrical installations within or upon all buildings in the Village shall be rigid conduit, intermediate conduit, electrical metallic tubing, flexible metallic tubing, flexible metallic conduit, liquidtight flexible metal conduit, or other metallic raceway, including those approved for use in floors in accordance with the National Electrical Code. Flexible metal conduit shall be permitted only to finish walls and as fixture whips not to exceed six feet in length. Flexible metal conduit, flexible metallic tubing, and liquidtight flexible metal conduit not to exceed six feet in length shall be allowed for fixtures, motors, and other similar attachments. Where aluminum flexible metal conduit is used, an equipment bonding jumper shall be installed. Where used to connect equipment where flexibility is required, an equipment grounding conductor shall be installed. Where required or installed, equipment grounding conductors shall be installed in accordance with 250.134(B) of the National Electrical Code. Where required or installed, equipment bonding jumpers shall be installed in accordance with 250.102 of the National Electrical Code. Rigid nonmetallic conduit may be used for parking lot luminaires, exterior luminaires, in concrete slabs on grade only, in open parking structures where out of the way of physical danger, in wet locations, locations where chemicals can be harmful to steel conduit or where approved by the Chief Electrical Inspector. Only compression or screw type fittings shall be used on electrical metallic tubing, rigid conduit, flexible metal conduit, flexible metallic tubing, or intermediate metallic conduit. Rigid or intermediate metal conduit shall be used in all concrete slabs above grade. Rigid or intermediate metal or rigid nonmetallic conduit shall be used underground. Rigid, rigid nonmetallic, intermediate or aluminum conduit shall be used wherever exposed to weather. Armored cable and MC cable may be used in detached single family residential accessory structures. Type UF cable may be used between a residential structure and an accessory structure and it shall enter the structure and the accessory structure in rigid conduit. All wire or cable within any building in the Village shall be copper.~~

~~(b) Nonmetallic cable may be permitted for specific uses by the chief electrical inspector.~~

~~(c) All joints in wires, including those to which fixtures are attached, shall be made mechanically secure and soldered or an Underwriter's Laboratories, Inc. listed connector used, except that connectors employing hard types of insulation such as ceramic or bakelite without metal inserts shall not be permitted.~~

~~(d) No junction boxes, pull boxes, cabinets or ground clamps shall be permitted in any place, location or position so that access to the interior connections is prevented by any permanent object or structure such as pipes, ducts, walls, plaster, cabinets, plumbing fixtures, other electrical equipment or appliances.~~

~~(e) Single pole, three way and four way switches must in all cases be cut in the live or ungrounded side of the line.~~

~~(f) All neutral wires shall be insulated and identified by the color white or grey.~~

~~(g) All fuses and circuit breakers shall be part of approved service or panelboard assemblies or distribution cabinets which are totally enclosed in metal or shall be totally enclosed in metal or part of an~~

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~~approved device in which the fuse is inaccessible unless the device is removed from all source of electrical energy.~~

~~— (h) Each appliance, except portable appliances, rated at ten amperes or more, and each motor or motor driven appliance of one half horsepower or more, shall be provided with its own separate circuit, over current protection and disconnecting means.~~

~~— (i) Each furnace or combustion heating unit shall be connected to separate circuit and be provided with a switch which removes all voltage from the unit. Each motor of each furnace or combustion heating unit shall be provided with adequate overcurrent protection. If this protection is not built into the motor, it shall be provided separately.~~

~~— (j) All lighting above one hundred fifty volts to ground shall have low voltage switching except when switched at electrical panel board.~~

~~— (k) Battery exit and emergency lights shall be installed in all multi family dwellings that have common stairs or hallways.~~

~~— (l) On all open wood studs, bracket boxes shall be used unless otherwise approved by the electrical inspector.~~

~~— (m) All attic and crawl spaces larger than one hundred square feet shall have a light installed in such space and a switch installed in the entrance to such a space.~~

~~— (n) All distribution panels, subpanels, breaker panels, motor control centers, and fuse panels shall be protected by a main breaker or disconnect located within three feet and in sight.~~

~~— (o) Battery exit and emergency lights shall be installed in all commercial and industrial buildings over one thousand two hundred square feet unless a generator system with automatic transfer of power is installed to supply exit and emergency lights.~~

~~— (p) Any equipment above six hundred volts shall be maintained by a licensed electrical contractor.~~

~~— (q) Plastic wire nuts with a steel spring insert may be used. The wires are to be mechanically twisted together before the wire nut is installed.~~

~~— (r) Crimp connectors may only be used on stranded wire.~~

~~— (s) A device may not be used as splice.~~

~~— (t) Backstabbing may not be used on any device. All wires must be secured under the screws on the device.~~

~~— (u) Ground fault circuit interrupter protection shall be required within six (6) feet of sinks in commercial installation.~~

~~— (v) All 125 volt, single phase, 15 and 20 ampere receptacles installed below grade shall have ground fault circuit interrupter protection for personnel.~~

~~— (w) A single break glass shunt trip with spring loaded switch shall be provided to disconnect all electrical computer equipment and HVAC in an electronic computer/data processing equipment room and to disconnect all power to and out of the UPS (uninterruptible power supplies) room. The shunt trip shall not be installed any higher than eight (8) feet from the floor.~~

~~— (x) All 125 volt, single phase, 15 and 20 ampere receptacles, electrical equipment, light fixtures, and fans, installed in bathrooms shall be installed with GFCI protection.~~

~~— (y) All detached and attached garages will be required to have at least one accessible 110v GFCI protected outlet, an interior light on a switch, and an exterior light on a switch for the service door. Detached Garages will be required to have a single main disconnect labeled "Garage Disconnect" in the garage to control the power in the garage. (Ord. No. 662, § 25; Ord. No. 1778, § 3; Ord. No. 2178, § 3; Ord. No. 2876, §§ 3, 5; Ord. No. 2971, § 1; Ord. No. 3403, § 4.)~~

Section 37. Section 10.25. is hereby repealed in its entirety

10.25. Inspection prior to concealing wiring.

~~— Wiring shall not be concealed until it has been inspected and accepted. Notices posted in or on buildings by inspectors shall be removed only by inspectors after acceptance of work. A plan showing~~

~~electrical lighting and outlet layouts shall be available for the inspector on the premises when "roughing in" inspection is made.~~

~~— A complete and approved set of plans shall be on the premises and available when a final inspection is made.~~

~~— Wires or cables shall not be drawn into conduits or raceways which will be concealed in walls, floors, or ceilings until such enclosing of walls, floors, or ceilings are completed. Plaster, if used, must be dry. (Ord. No. 662, § 28; Ord. No. 1778, § 3; Ord. No. 2876, § 5; Ord. No. 3403, § 6.)~~

Section 38. Section 10.26. is hereby repealed in its entirety

10.26. Reserved.

(Ord. No. 662, § 27; Ord. No. 1778, § 3; Ord. No. 2876, § 5.)

Section 39. Section 10.27. is hereby repealed in its entirety

10.27. Reserved.

(Ord. No. 662, § 29; Ord. No. 1778, § 3; Ord. No. 2178, § 4; Ord. No. 2876, § 5; Ord. No. 3403, § 7.)

Section 40. Section 10.28. is hereby repealed in its entirety

10.28. Services.

~~(a) All unprotected service entrance conductors shall enter the panel in rigid, intermediate, or aluminum threaded conduit. Threaded or compression fittings shall be used in wet and damp locations. Set screw shall be allowed in dry locations. Service entrance cable may be used on temporary services with the permission of the chief electrical inspector. No live unfused service entrance conductor shall extend over five feet inside the building without special permission from the chief electrical inspector. All underground service conductors shall be in the form of cable with thermoplastic or other insulation and coverings approved for the use and rated by Underwriter's Laboratories, Inc., or other approved testing agency as allowed by the chief electrical inspector, and protected against mechanical injury and terminated in an approved manner which does not require the use of solder. No solder shall be used on a service entrance conductor. Each residential occupancy shall be provided with a main switch or circuit breaker, except where there is more than one meter installed, a main disconnect or breaker shall be installed for the entire service and a main breaker or disconnect shall be installed in either each meter or panel. Except as provided in Section 10-24.1, all commercial, industrial, and multi-use buildings shall have a main disconnecting means, which shall shut down power to the entire building with one operation of the hand. All ground wire shall be copper without splices.~~

~~(b) All service and distribution equipment shall be approved for the use which it is intended by Underwriter's Laboratories, Inc., NEMA, or other approved laboratories as allowed by the chief electrical inspector, and shall be so labeled.~~

~~(c) The minimum service of any new or revised residential or multiple family structure shall be one hundred amp twenty circuit panel.~~

~~The minimum service on any new or revised commercial or industrial installation shall be one hundred amp twenty circuit panel, except as provided for in Section 10-24.1, and all service conductors shall be copper.~~

~~(d) If a two hundred amp service is installed, the panel shall have not less than forty circuits.~~

~~For any installation, there shall be only one wire under the screw or lug for each fuse or breaker. No tandem circuit breakers shall be allowed.~~

~~—— (e) On one hundred amp services, the minimum size of service conductors shall be #3 THW, THHW, THWN, XHHW, or larger. On two hundred amp services, the minimum size of service conductors shall be 3/0 THW, THHW, THWN, XHHW, or larger.~~

~~—— (f) All service grounds shall be run directly to the street side of the water meter, with a supplemental eight foot copper ground rod driven outside the structure, unless otherwise approved by the chief electrical inspector.~~

~~—— (g) Service conductors installed as open conductors, or multiconductor cable without an overall outer jacket, shall have a clearance of not less than three (3) feet (914mm) from any stationary or openable window, door, fire escape or similar location.~~

~~—— (h) If there is any work done from the service head to the primary conductors in the rear of the main panel, a service upgrade shall be required to not less than 100 amp.~~

~~—— (i) Sidecars /panel extensions will be allowed only when installed within three feet and insight of the main power source and will be powered by circuit breakers in the main panel. Installation will be the same as required for new services. The minimum number of circuits allowed in a sidecar or subpanels will be 8. (Ord. No. 662, § 30; Ord. No. 1778, § 3; Ord. No. 2876, § 5; Ord. No. 3403 § 8.)~~

Section 41. Section 10.29. is hereby repealed in its entirety

10.29. Reserved.

(Ord. No. 662, § 31; Ord. No. 1778, § 3; Ord. No. 2876, § 5.)

Section 42. Section 10.30. is hereby repealed in its entirety

10.30. Reserved.

(Ord. No. 662, § 32; Ord. No. 1778, § 3; Ord. No. 2876, § 5.)

Section 43. Section 10.31. is hereby repealed in its entirety

10.31. Reserved.

Section 44. Section 10.32. is hereby repealed in its entirety

10.32. Reserved.

Section 45. Section 10.33. is hereby repealed in its entirety

10.33. Metering in multiple family dwelling.

~~—— A separate electrical meter shall be provided for each unit in a multiple family dwelling. The power source serving more than one meter shall have a main disconnect, which shall be readily accessible to fire department personnel, to permit all meters to be shut off simultaneously. (Ord. No. 2608, § 3; Ord. No. 2876, § 5.)~~

Section 46. Section 10.34. is hereby repealed in its entirety

10.34. Feeder and branch circuit distribution equipment

~~— All feeder distribution and branch circuit distribution equipment shall be dead front unless both of the following conditions are met:~~

~~— (a) Access to the distribution equipment is only through an approved steel door with integral lock or locks.~~

~~— (b) Access is limited to a qualified maintenance electrician and his/her qualified subordinates or an electrical contractor. (Ord. No. 662, § 26; Ord. No. 1778, § 3; Ord. No. 2876, § 5.)~~

Section 47. Section 10.35. is hereby repealed in its entirety

10.35. Reserved.

Section 48. Section 10.36. is hereby repealed in its entirety

10.36. Overfusing.

~~— It shall be unlawful for any person to overfuse any conductor, motor or apparatus in excess of the maximum allowed by the National Electrical Code for such conductor, motor or apparatus, or to install any substitute in lieu of an approved fuse or device so as to remove or reduce the factor of safety of same. (Ord. No. 662, § 18; Ord. No. 1778, § 3; Ord. No. 2876, § 5; Ord. No. 3403, § 10.)~~

Section 49. Section 10.36ART. is hereby repealed in its entirety

10.36ART. Article IV. Standards and Specifications for Pre-wired Office Partitions

Section 50. Section 10.37. is hereby repealed in its entirety

10.37. Scope of Article-Definition.

~~— This Article governs and regulates the installation, maintenance, electrical infeed systems, safety features, and service performance of pre-wired office partitions. For purposes of this Article, a pre-wired office partition shall mean any and all office partitions manufactured for, and equipped with, a dedicated-wiring (pre-wired) system.~~

Section 51. Section 10.38. is hereby repealed in its entirety

10.38. Permit to Install Pre-wired Office Partitions.

~~— (a) No person shall install, alter or repair any pre-wired office partition unless a permit for such work was issued by the Director of Community Development after approval by the Electrical Inspector or his/her duly authorized representative.~~

~~— (b) Installation, alteration or repair of pre-wired office partitions shall be performed by an electrical contractor licensed as such under Chapter 8, Article IX, of the Downers Grove Municipal Code. The fees to be charged for inspection of the pre-wired office partition shall be based on the number of outlets as set forth in Section 10-21(e).~~

~~— (c) To obtain a permit for the installation, alteration or repair of pre-wired office partitions, the licensed electrician shall submit to the Director of Community Development a floor layout plan for placement of the pre-wired partitions and the electrical plan of each partition to be installed.~~

Section 52. Section 10.39. is hereby repealed in its entirety

10.39. Requirements for Pre-wired Office Partitions-Installation.

~~Pre-wired office partitions shall meet the following requirements:~~

~~(a) The pre-wired office partition shall be connected to circuit breaker protection from building electrical services with either of the following energy sources:~~

~~(1) 120/208 volt, 3-phase wye, 60 hertz.~~

~~(2) 120/240 volt, 1-phase split, 60 hertz.~~

~~(b) The main power supply of the pre-wired office partitions shall be hard-wired from the wall to the first pre-wired panel.~~

Section 53. Section 10.40. is hereby repealed in its entirety

10.40. Same-Materials.

~~(a) Conductors shall be insulated electrical grade copper wire, except in connectors, receptacles and other devices.~~

~~(b) Conductors shall be at least a 14-strand copper wire.~~

~~(c) Insulating materials used in conjunction with conductors, connectors, and other circuit components of the pre-wired office partition shall be capable of maintaining their form and function indefinitely at working temperatures up to and including 90° centigrade and 164° fahrenheit. Such insulating materials shall be self-extinguishing if set on fire.~~

Section 54. Section 10.41. is hereby repealed in its entirety

10.41. Same-Wiring

~~(a) *Wire size.* All circuit breakers used to power the pre-wired office partition shall be 28-ampere or less. Line circuit wire shall be the proper size to adequately carry the current permitted by the circuit breaker. (Example: a 20-ampere circuit breaker requires no smaller than a 12 AWG line wire with not less than 14 strands.)~~

~~(b) *Neutral wire.* Neutral wire shall be the proper size to adequately carry the total current possible from an unbalanced system. (Example: if one wire is dedicated as a neutral for two lines and each line is protected by a 20-ampere circuit breaker on the same leg, the neutral wire shall be capable of carrying 40 amperes and be no smaller than 10 THHN.)~~

~~(c) *Ground wire.* Ground wire shall be the proper size to adequately carry the current possible on the line circuit having the largest circuit breaker if a fault develops.~~

~~(d) *Color code.*~~

~~(1) Line circuit wire may be any color except white, slate (light grey), or green.~~

~~(2) The neutral wire shall be white. If white is unavailable, the neutral wire shall be slate. Any additional neutral wires in the group shall be either white or slate with a color trace.~~

~~(3) The ground wire shall be green. If green is unavailable, the ground wire shall be green with yellow trace. Any additional ground wires in the group shall be green with a color trace.~~

~~(e) *Flexibility and slack.* All wiring shall be capable of withstanding flexing experienced during installation, movement due to accidental bumping, planned relocations, and subsequent wiring changes.~~

Section 55. Section 10.42. is hereby repealed in its entirety

10.42. Same-Plug-in Connections.

~~(a) All circuit lines, neutrals and grounds shall be opened/closed simultaneously.~~

~~— (b) Upon making an adequate electrical connection and final positioning of the component (wiring connector, receptacle, etc.), mechanical features of the system shall maintain the component's position to ensure an adequate connection until deliberate action is taken to effect a disconnect.~~

~~— (c) No part of a line circuit or neutral wire shall be exposed and capable of being contacted at an open connector interface by anything having greater than a one-quarter inch diameter curvature.~~

~~— (d) The connection between a conductor wire and its associated metallic connector contact shall be secure over the entire area provided for crimping. The crimped connection shall be stronger than the associated wire.~~

~~— (e) The nature of a connection shall be such that maximum temperature rise measurable anywhere on the connector's outer body surface, after twenty-four hours in still air with 150% of rated current continuously passing through all contacts, be a maximum of 30 degrees celsius above the beginning temperature. Prior to testing, the connector shall remain in the test environment for twenty-four hours to stabilize the beginning temperature in the range of reasonable office ambient temperatures.~~

Section 56. Section 10.43. is hereby repealed in its entirety

10.43. Same-Receptacles.

~~— (a) All receptacles shall be grounding type receptacles.~~

~~— (b) Standard service, 3-prong receptacles shall have a 15-ampere service rating.~~

~~— (c) All receptacles shall be mounted securely in place and be able to withstand heavy blows, and pulls on an inserted plug's cord from any angle, without any damage to the receptacle or partition.~~

Section 57. Section 10.44. is hereby repealed in its entirety

10.44. Electrical Service Channel.

~~— (a) The electrical service channel shall contain a drip-proof design so liquids impinging from vertically above or parallel to the floor will be diverted away from the channel's internal wire way.~~

~~— (b) Closure/face panels shall not be dislodged when bumped or kicked.~~

Section 58. Section 10.45. is hereby repealed in its entirety

10.45. Same-Marking Labels.

~~— All points of installation and service shall be adequately marked/labeled with information needed by a licensed electrician or inspector.~~

Section 59. Section 10.46. is hereby repealed in its entirety

10.46. Same-Underwriters Laboratory Listing.

~~— All components and system configurations of the pre-wired office partition shall be UL-listed and labeled/marked as such.~~

Section 60. Section 10.46ART. is hereby repealed in its entirety

10.46ART. Article V. Electrical Commission

Section 61. Section 10.47. is hereby repealed in its entirety

10.47. Electrical Commission established.

~~There is hereby established an Electrical Commission for the Village of Downers Grove which shall consist of seven members as follows: the chief electrical inspector of the municipality shall be a member and ex-officio chairman of the commission; of the other five members, one shall be a registered professional engineer, one an electrical contractor, two journeyman electricians, the chief of the fire department or such person as the chief may designate from the members of the fire department, and one representative of an electricity supply company. If there is no person residing in the municipality who is qualified under any one of these descriptions, the Mayor may appoint some other person to fill that position. All members of the Electrical Commission shall be appointed by the Mayor with the advice and consent of the Council and shall be appointed for staggered terms of three years each. Members shall hold office for their designated terms and until their successors have been appointed. (Ord. No. 2033, § 1; Ord. No. 2876, § 5; Ord. No. 3284, § 1.)~~

Section 62. Section 10.48. is hereby repealed in its entirety

10.48. Duties.

~~The electrical commission shall recommend to the Council safe and practical standards and specifications for the installation, alteration and use of electrical equipment designed to meet the necessities and conditions of the particular locality, reasonable rules and regulations governing the issuance of permits by the electrical inspection department, and reasonable fees to be paid for the inspection by the inspection department of all electrical equipment installed or altered within the municipality. The standards, specifications, rules, regulations and fees so recommended shall not become effective until adopted by ordinance by the corporate authorities of the municipality. (Ord. No. 2033, § 1; Ord. No. 2876, § 5.)~~

Section 63. That Section 2.53. is hereby amended to read as follows:

2.53. Appointment of members to boards and commissions.

(a) Members of the following boards and commissions shall be appointed by the Village Council as provided herein:

Library Board of Trustees - all members as provided by law.

(b) Members of the following boards and commissions shall be appointed by the Mayor as provided herein:

Police Pension Board - two members, with balance as provided by statute.

Fire Pension Board - two members, with balance as provided by statute.

(c) Members of the following boards and commissions shall be appointed, and the chairperson designated, by the Mayor, subject to confirmation by the Village Council:

Architectural Design Review Board

Board of Fire and Police Commissioners

Community Grants Commission

Community Events Commission

~~Electrical Commission~~

Environmental Concerns Commission

Human Service Commission

Liquor Commission

Plan Commission

Stormwater and Flood Plain Oversight Committee

Technology Commission

Transportation and Parking Commission

Zoning Board of Appeals

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(d) Members of the following boards and commissions shall be appointed, and the chairperson designated, by the Village Manager:

(e) Members of the following boards and commissions shall be appointed, and the chairperson designated, by the Village Manager, subject to confirmation by the Village Council:

Building Board of Appeals

(f) Each member of a board or commission, including the chairman, shall hold office until the expiration of the term for which such member was appointed or until such time as a successor has been appointed or qualified, unless prior to such time such member resigns his/her position or is removed from it by the appointing official.

(g) Vacancies on any board or commission shall be filled as soon as possible for the unexpired term of the member whose place has become vacant.

(h) Each member of a board or commission shall be a resident of the Village unless otherwise specifically provided.

(i) Only duly appointed members may vote on any matter before any board or commission.

(j) The Mayor may, in his/her discretion, subject to confirmation by the Village Council, appoint for a one (1) year term, a student who will be enrolled in the 11th grade during the majority of his/her term on the following boards and commissions:

- (1) Community Events Commission
- (2) Environmental Concerns Commission
- (3) Grants Commission
- (4) Human Services Commission
- (5) Transportation and Parking Commission

Each student shall reside within the Village of Downers Grove and shall be a voting member of the board or commission. Any student member appointed pursuant to this section may be in addition to any regularly appointed members of the board or commission as established by Ordinance. (Ord. No. 3266, § 34; Ord. No. 3294, § 1.)

Section 64. That all ordinances or parts of ordinances in conflict with the provisions of this ordinance are hereby repealed.

Section 65. That this ordinance shall be in full force and effect November 6, 2009.

Mayor

Passed:

Published:

Attest: _____
Village Clerk