

VILLAGE OF DOWNERS GROVE
Report for the Village Council Meeting
7/11/2017

SUBJECT:	SUBMITTED BY:
Adoption of 2015 ICC Building and Fire Codes	Stan Popovich, AICP Director of Community Development

SYNOPSIS

Ordinances have been prepared adopting the International Code Council's (ICC) 2015 series of building and fire codes.

STRATEGIC PLAN ALIGNMENT

The goals for 2015-2017 include *Exceptional Municipal Services* and *Steward of Financial, Environmental and Neighborhood Sustainability*.

FISCAL IMPACT

N/A

UPDATE & RECOMMENDATION

This item was discussed at the June 13 and June 20, 2017 Village Council meetings. Based on Council direction, the requirement for residential sprinklers in new single-family and two-family (duplex) residential buildings has been removed from the 2015 IRC via local amendment. To provide enhanced protection in an IRC regulated residential building, the following local amendments are proposed:

- A heat detector is required in all attached garages. The heat detector must be hard wired and interconnected with other detection devices within the home
- In all areas of a garage that come into contact with a living space or attic, 5/8" drywall is required.

The Village will also provide new residential building applicants with an information packet regarding residential sprinklers.

Staff recommends approval at the July 11, 2017 Village Council meeting.

BACKGROUND

The Village's current building codes were adopted in October 2009. The building codes which were adopted at that time were the 2006 edition of the International Code Council (ICC) codes. Staff is proposing that the Village update to the 2015 edition of the ICC's building and fire codes. The specific codes targeted for adoption are:

- *2015 International Residential Code (IRC)* – governs construction of one- and two-family residential buildings and townhomes
- *2015 International Building Code (IBC)* – governs construction of all other use types
- *2015 International Property Maintenance Code (IPMC)* – governs maintenance of all existing buildings and properties
- *2015 International Fire Code (IFC)* – governs construction and maintenance of life safety systems in commercial and multi-family buildings
- *2015 International Fuel Gas Code (IFGC)* - governs installation of fuel-gas piping systems and fuel gas appliances
- *2015 International Mechanical Code (IMC)* - governs mechanical systems utilized to provide control of environmental conditions and related processes within buildings
- *2015 International Swimming Pool and Spa Code (ISPSC)* - governs aquatic recreation facilities, pools and spas

Staff has undertaken an extensive review process to examine the 2015 codes and determine differences between the current 2006 codes and local amendments with the proposed 2015 codes. In exploring the code changes, staff emphasized the following key concepts and strategies:

- Align with Long Range Plan goals
- Create clear and user friendly code requirements
- Reduce the number of local code amendments (42% reduction in the IRC and 55% reduction in IBC)
- Maintain consistency with existing ordinance provisions
- Maintain and provide code provisions that address local construction practices
- Align Village regulations with comparable communities

The principal change between the 2006 and 2015 IRC is the requirement to install fire sprinklers in newly constructed single family house. Some neighboring communities in the immediate area have removed this requirement from their building codes. A list of communities and fire districts in Illinois requiring sprinklers is attached.

Below is a brief summary of the major changes included in the 2015 model codes that are proposed for adoption.

2015 International Residential Code:

- All new one- and two-family dwellings and townhomes are required to have fire sprinklers. This does not affect existing one- and two-family dwellings undergoing renovations or additions.
- All exposed engineered wood floor framing needs to be covered with gypsum board unless sprinklers are provided. This would require a layer of drywall on the ceiling of an unfinished basement.
- When finishing an existing basement an emergency escape window is only required if there is a sleeping room.
- Smoke alarms for remodeling and additions are now allowed to be wirelessly interconnected.
- Smoke alarms required throughout existing dwelling unit as part of a remodeling project are allowed to be battery operated rather than hard-wired for power.

2015 International Building Code:

- Cross-Laminated Timber (CLT) is now permitted within exterior walls required to be of noncombustible construction, much in the same manner as fire-retardant-treated wood is allowed. The CLT must be covered on the exterior side with approved materials. CLT is regulated as Type IV construction, historically reserved for heavy timber.
- Excavation near foundations of adjacent structures now have basic requirements for providing protection to the adjacent structure.
- Certain Institutional occupancies have added sub-classifications to differentiate between the needs of individuals capable of self-preservation and those incapable, especially in situations such as assisted living facilities.
- Relaxed requirements for: Areas of Refuge in stairwells, number of allowable basement stories in podium style buildings, and dead end corridor length. However, developers would still be required to comply with the Illinois Accessibility Code.

2015 International Property Maintenance Code (IPMC)

- No major changes

2015 International Fire Code:

- Remove the restrictive amendments imposing limitations on waste oil and fresh oil storage.
- Require fire sprinklers in all new commercial buildings of all uses. This does not affect the triggers for the installation of fire sprinklers in existing commercial buildings.
- Require periodic evaluation of the fire sprinkler system in warehouse buildings to ensure it is adequately designed for any changes to what is being stored and the manner in which it is stored.
- Limit the use of NFPA 13R fire sprinkler systems (systems designed for residential buildings four stories and below that offer less protection than that provided for commercial structures) to buildings of Types I or II construction. This improves the quality of protection in residential buildings constructed of wood.
- Clarify an existing amendment which requires smoke detectors in residential buildings to be part of the building's fire alarm system.

2015 International Fuel Gas Code (IFGC)

- No major changes

2015 International Mechanical Code (IMC)

- No major changes

2015 International Swimming Pool and Spa Code (ISPSC)

- This is a new separate code book. In the 2006 family of ICC codes, swimming pools and spas were included in the IRC code as an appendix. The 2015 family of ICC codes creates a separate code book for swimming pools and spas.
- No major changes to the technical aspects of the code.

For the first time the National Multi-family Housing Council (NMHC), National Apartment Association, Building Owners and Managers Association, and the National Association of Home Builders are encouraging state and local jurisdictions to consider adopting the 2015 ICC Codes. The NMHC has stated that, "Many of the changes benefit apartment and commercial construction and taken as a whole these positive changes more than offset the changes that might increase construction costs."

On May 24, 2017, staff held an informational meeting regarding the proposed adoption of the 2015 ICC family of codes. Staff invited architects, builders and contractors to attend the meeting which highlighted some of the key technical changes from the existing codes to the 2015 codes. Fourteen individuals attended and participated in the discussion.

ATTACHMENTS

Ordinances

Communities and Jurisdictions requiring sprinklers

Sprinkler background information

VILLAGE OF DOWNERS GROVE COUNCIL ACTION SUMMARY

INITIATED: Community Development DATE: July 11, 2017
(Name)

RECOMMENDATION FROM: _____ FILE REF: _____
(Board or Department)

NATURE OF ACTION:

- Ordinance
- Resolution
- Motion
- Other

STEPS NEEDED TO IMPLEMENT ACTION:

Motion to Adopt "AN ORDINANCE ADOPTING THE 2015 INTERNATIONAL BUILDING CODE AND AMENDMENTS THERETO", as presented.



SUMMARY OF ITEM:

Adoption of the attached ordinance shall adopt the 2015 International Building Code and amendments thereto.

RECORD OF ACTION TAKEN:

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ORDINANCE NO. _____

**AN ORDINANCE ADOPTING THE
2015 INTERNATIONAL BUILDING 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. That Section 7.1100.ART. is hereby amended to read as follows:

7.1100.ART. Article XI. INTERNATIONAL BUILDING CODE

Section 2. That Section 7.1101. is hereby amended to read as follows:

7.1101. 2015 International Building Code Adoption

The International Code Council International Building Code, as promulgated by International Code Council ("ICC"), being particularly the ~~2006~~2015 edition thereof, is hereby adopted for the purpose of establishing rules and regulations for the construction, alteration, removal, demolition, equipment, use and occupancy, location and maintenance of buildings and structures, including permits and penalties required for such purposes. The same is adopted in its entirety, save and except such portions as are hereinafter deleted, modified or amended, and is, together with such amendments, incorporated as fully as if set out at length herein, and shall control in the construction of all buildings and structures therein regulated within the Village. Said Building Code, as modified and amended, may be referred to for all purposes as the "Downers Grove Building Code" or the "Building Code". 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. 1281, § 1; Ord. No. 1586, § 1; Ord. No. 2143, § 2; Ord. No. 2584, § 2; Ord. No. 2857, § 2; Ord. No. 3184, § 2; Ord. No. 3391, § 2.)

Section 3. That Section 7.1102. is hereby amended to read as follows:

7.1102. International Building Code - Amendments.

The deletions from and modifications and amendments to the ~~2006~~2015 International Building Code as referred to in this Article are the following:

CHAPTER 1

Section 101.1 is amended by deleting the same in its entirety and by substituting in lieu thereof the following:

101.1 Title. These regulations shall be known as the Building Code of the Village of Downers Grove, hereinafter referred to as "this code".

~~**Section 101.4.1** is amended by deleting the same in its entirety and by substituting in lieu thereof the following:~~

~~———— **101.4.1 Electrical.** The provisions of the National Electrical Code, as adopted and amended by the Village, shall apply to the installation of electrical systems, including alterations, repairs, replacement, equipment, appliances, fixtures fittings and appurtenances thereto.~~

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Section 101.4.4~~101.4.3~~ is amended by deleting the same in its entirety and by substituting in lieu thereof the following:

101.4.4~~101.4.3~~ **Plumbing.** The provisions of the State of Illinois Plumbing Code, as adopted and amended by the Village, shall apply to the installation, alteration, repair, and replacement of plumbing systems, including equipment, appliances, fixtures, fittings and appurtenances, and where connected to a water sewage system and all aspects of a medical gas system. The provisions of the Village of Downers Grove Municipal Code shall apply to private sewage disposal systems.

Section 101.4.7 is amended by deleting the same in its entirety.

Section 102 is amended by deleting the same in its entirety and addressed in Chapter 7, Article I of the Downers Grove Municipal Code.

Section 102.6 is amended by deleting "the International Existing Building Code".

Section 103 is amended by deleting the same in its entirety and addressed in Chapter 7, Article II of the Downers Grove Municipal Code.

Section 104.1 through Section 104.8~~104.8.1~~ are amended by deleting the same in their entirety and addressed in Chapter 7 Article II of the Downers Grove Municipal Code.

Section 104.9.1 is amended by deleting the first sentence.

Section 104.10 is amended by deleting the same in its entirety.

Section 105.1.1 is amended by deleting the same in its entirety.

Section 105.1.2 is amended by deleting the same in its entirety.

Section 105.2 is amended by deleting building conditions 1 through 13 in their entirety and by substituting in lieu thereof the following:

105.2 Work exempt from permit. Exemptions from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction. Permits shall not be required for the following:
Building:

1. One-story detached accessory structures used as tool, storage sheds, and similar uses with a floor area not exceeding one hundred (100) square feet.
2. Retaining walls that are not over three (3) feet in height measured from grade to the top of the wall.
3. Painting, papering, tiling, carpeting, cabinets, counter tops, and similar finish work.
4. ~~Prefabricated swimming pools accessory to a Group R-3 occupancy that are less than 24 inches deep, do not exceed 5,000 gallons and are installed entirely above ground.~~
5. Nonfixed and movable fixtures, cases, racks, counters, and partitions not over 5 feet 9 inches in height.

Section 105.3 through Section 105.7 are amended by deleting the same in their entirety and addressed in Chapter 7 Article III of the Downers Grove Municipal Code.

Section 106.1 through Section 106.5 are amended by deleting the same in their entirety and addressed in Chapter 7, Article IV of the Downers Grove Municipal Code.

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~~Section 108.1~~**109.1** through ~~Section 108.6~~**109.6** are amended by deleting the same in their entirety and addressed in Chapter 7, Article VII of the Downers Grove Municipal Code.

~~Section 109.1~~**110.1** through ~~Section 109.2~~**110.2** are amended by deleting the same in their entirety and addressed in Chapter 7, Article VI of the Downers Grove Municipal Code.

~~Section 109.3.8~~**110.3.8** is amended by deleting the same in its entirety and by substituting in lieu thereof the following:

~~109.3.8~~**110.3.8 Other Inspections.** In addition to the inspections specified above, the building official is authorized to make or require other inspections of any construction work to ascertain compliance with the provisions of this code and other laws that are enforced by the Village. Additional inspections may include, but are not limited to, the following as applicable to the project:

1. Foundation and drantile prior to backfill.
2. Underground and rough utilities
3. Plumbing stack test
4. Insulation
5. Electrical services prior to activation
6. Rough ceilings
7. All fire and life safety systems as required by the code official.

~~Section 110.11~~ is amended by deleting the same in its entirety and addressed in Chapter 7, Article VII of the Downers Grove Municipal Code.

~~Section 112.113~~ is amended by deleting the same in its entirety and addressed in Chapter 7, Article IX of the Downers Grove Municipal Code.

~~Section 113.114~~ is amended by deleting the same in its entirety and addressed in Chapter 7, Article X of the Downers Grove Municipal Code.

~~Section 115.116~~ is amended by deleting the same in its entirety and by substituting in lieu thereof the following:

~~115.116~~ **Unsafe structures and equipment.** The provisions of the International Property Maintenance Code as adopted and amended by the Village shall apply.

CHAPTER 2

~~Section 202~~ is amended as follows:

~~202~~ **Definitions.**

~~The definition for HIGH-RISE BUILDING is amended by deleting the same in its entirety and by substituting in lieu thereof the following:~~

~~**HIGH-RISE BUILDING.** A building with an occupied floor located more than fifty-five (55) feet above the lowest level of Fire Department vehicle access as measured from grade to the floor elevation of the top occupied floor.~~

~~———— The definition of Vapor Retarder is amended by deleting the same in its entirety and by substituting in lieu thereof the following:~~

~~**Vapor Retarder Class.** A measure of a material or assembly's ability to limit the amount of moisture that passes through that material or assembly. Vapor retarder class shall be defined using the desiccant method of ASTM E-96 as follows:~~

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Class I: 0.1 perm or less

Class II: perm is greater than .1 and less than or equal to 1.0 perm

Class III: perm is greater than 1.0 and less than or equal to 10 perm

CHAPTER 4

~~Section 403.1~~ is amended by deleting the first paragraph in its entirety and by substituting in lieu thereof the following:

~~403.1~~ **Applicability.** The provisions of this section shall apply to buildings with an occupied floor located more than fifty-five (55) feet above the lowest level of Fire Department vehicle access as measured from grade to the floor elevation of the top occupied floor.

~~Section 403.2~~ **403.3** is amended by deleting the exceptions thereto in their entirety.

~~Section 403.12.1~~ **403.5.3.1** shall be amended by deleting the same in its entirety and by substituting in lieu thereof the following:

~~403.12.1~~ **403.5.3.1 Stairway communications system.** See Section 907.2.12.3 for requirements.

~~Section 403.13~~ **403.5.4** shall be amended by deleting the same in its entirety and by substituting in lieu thereof the following:

~~403.13~~ **403.5.4 Smokeproof exit enclosures.** Every required stairway serving floors more than fifty-five (55) feet above the lowest level of Fire Department vehicle access measured from grade to the floor elevation of the top occupied floor shall comply with Sections 909.20 and ~~4020.1.7~~ **1023.11**.

~~Section 406.5.2~~ **406.7.2** shall be amended by deleting the first paragraph in its entirety and by substituting in lieu thereof the following:

~~406.5.2~~ **406.7.2 Canopies.** Canopies under which fuels are dispensed shall have a clear, unobstructed height of not less than thirteen (13) feet six (6) inches to the lowest projecting element in the vehicle drive-through area. Canopy structures and their supports over pumps shall be of noncombustible materials. Plastic facing material shall comply with the following:

All exceptions shall remain, however, Exception #1 shall be deleted in its entirety.

~~Section 414.5.4~~ shall be amended by deleting the "ICC Electrical Code" and by substituting in lieu thereof the following:

~~"National Electric Code as adopted and amended by the Village."~~

~~Section 415.6.4~~ shall be amended by deleting the "International Plumbing Code" and by substituting in lieu thereof the following:

~~"State of Illinois Plumbing Code as adopted and amended by the Village"~~

~~Section 415.8.2.8.1~~ is amended by deleting the words "ICC Electrical Code" and substituting in lieu thereof the following:

~~"National Electrical Code as adopted and amended by the Village".~~

CHAPTER 5

~~Table 503~~ **504.3** is amended as follows:

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1. Type V-A and V-B is not permitted for all use groups governed by this code in all zoning districts. Exception: Restoration or remodeling for existing non-conforming structures of type V-A, V-B shall be permitted when the project area does not exceed thirty-five percent (35%) of the total building square footage.

Table 504.4 is amended as follows:

1. Type V-A and V-B is not permitted for all use groups governed by this code in all zoning districts. Exception: Restoration or remodeling for existing non-conforming structures of Type V-A and V-B shall be permitted when the project area does not exceed thirty-five percent (35%) of the total building square footage.

Table 506.2 is amended as follows:

1. Type V-A and V-B is not permitted for all use groups governed by this code in all zoning districts. Exception: Restoration or remodeling for existing non-conforming structures of Type V-A and V-B shall be permitted when the project area does not exceed thirty-five percent (35%) of the total building square footage.

Section 507.2~~507.3~~ is amended by deleting the same in its entirety.

Section 507.3~~507.4~~ Exception #2 is deleted in its entirety.

Section 507.4 shall be deleted in its entirety and substituting in lieu thereof the following:

507.4. Two story. The area of a two-story, Group B, F, M or S building of other than a Type V construction shall not be limited when the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, and is surrounded and adjoined by public ways or yards not less than sixty (60) feet (18 288 mm) in width.

Section 509.4 is amended to add the following exception:

Exceptions:

1. See Table 503 as amended.

Section 509.7 is amended to add the words "as amended" following the phrase "limitations in Section 503" in the second sentence of the first paragraph.

CHAPTER 6

Table 601 is hereby amended to read as follows:

Table 601 Fire-Resistance Rating Requirements for Building Elements (hours).

See Table 503~~504.3, 504.4 and 506.2~~, as amended, for construction type restrictions.

Table 602 is hereby amended to read as follows:

Table 602 Fire-Resistance Rating Requirements for Exterior Walls Based on Fire Separation Distance.

See Table 503~~604.3, 504.4 and 506.2~~, as amended, for construction type restrictions.

Section 602.5 Type V. is amended by adding:

Type V-A and V-B is not permitted for all use groups governed by this code in all zoning districts. Exception: Restoration or remodeling for existing non-conforming structures of Type V-A, V-B shall be permitted when the project area does not exceed thirty-five percent (35%) of the total building square

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footage.

~~Section 603.1.2~~ is amended by deleting the words "International Plumbing Code" and substituting in lieu thereof the following:

———"the State of Illinois Plumbing Code as adopted and amended by the Village"

~~Section 603.1.3~~ is amended by deleting the words "ICC Electrical Code" and substituting in lieu thereof the following:

———"the National Electrical Code as adopted and amended by the Village"

CHAPTER 7

~~Section 717.5~~ Exception #5 is amended by deleting the words "International Plumbing Code" and substituting in lieu thereof the following:

———"State of Illinois Plumbing Code as adopted and amended by the Village"

CHAPTER 9

~~Section 901.6~~ is amended by deleting the same in its entirety and by substituting in lieu thereof the following:

901.6 Supervisory Service.

All fire protection systems shall be supervised by a connection to the Village Operations Center in the manner specified by Section 17.58 of the Municipal Code. All alarm and detection services shall transmit alarm, supervisory, and trouble signals.

~~Section 901.6.2~~ is amended by deleting Exception #1 and Exception #2 in their entirety.

~~Section 901.6.3~~ is amended by deleting the Exception in its entirety.

~~Section 901.8~~901.9 is hereby added as follows:

901.8901.9 NFPA Standard editions. The following NFPA standards editions including all appendices and hereby adopted:

NFPA 13, the most current edition
 NFPA 13-D, the most current edition
 NFPA 13-R, the most current edition
 NFPA 14, the most current edition
 NFPA 20, the most current edition
 NFPA 25, the most current edition
 NFPA 96, the most current edition
 NFPA 30B, the most current edition
 NFPA 72, the most current edition

Section 903.2 is amended by deleting the same in its entirety and by substituting in lieu thereof the following:

903.2 Where Required. Automatic sprinkler systems shall be installed and maintained in full operating condition, as specified in this code, in all buildings and structures, including open parking structures, ~~which exceed two stories or twenty-five (25) feet in height or which have a total area in excess of the applicable square footage listed in Table 903.~~

TABLE 903

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Total area square footages above which installation of automatic sprinkler systems is required:

Types of Construction					
<u>Use Group</u>	Type 1A, 1B	Type 2A, 2B	Type 3A, 3B	Type 4	Type 5A, 5B
A-1 Assembly, theaters	0	0	0	0	Not Permitted
A-2 Assembly, nightclubs and similar uses	0	0	0	0	Not Permitted
A-3 Assembly (lecture halls, recreation centers, terminals, restaurants other than night clubs)	0	0	0	0	Not Permitted
A-4 Assembly, churches	0	0	0	0	Not Permitted
A-5 Assembly	0	0	0	0	Not Permitted
B Business	1,500	1,500	1,500	1,500	Not Permitted
E Educational	2,500	2,500	2,500	1,500	Not Permitted
F-1 Factory and industrial, moderate	2,500	2,500	2,500	1,500	Not Permitted
F-2 Factory and industrial, low	2,500	2,500	2,500	1,500	Not Permitted
H-1 High hazard, detonation hazards	0	0	0	0	Not Permitted
H-2 High hazard, deflagration hazards	0	0	0	0	Not Permitted
H-3 High hazard, physical hazards	0	0	0	0	Not Permitted
H-4 High hazard, health hazards	0	0	0	0	Not Permitted
I-1 Institutional, residential care	0	0	0	0	Not Permitted
I-2 Institutional, incapacitated	0	0	0	0	Not Permitted
I-3 Institutional, restrained	0	0	0	0	Not Permitted
I-4 Institutional,	0	0	0	0	Not Permitted
M Merchantile	2,500	2,500	2,500	1,500	Not Permitted
R-1, 2, 3, 4 (except detached one and two-family)	0	0	0	0	Not Permitted
S-1 Storage, moderate	2,500	2,500	2,500	1,500	Not Permitted
S-2 Storage, low	2,500	2,500	2,500	1,500	Not Permitted
U Utility, misc.	5,000	5,000	5,000	5,000	Not Permitted

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Section 903.2.1 through Section 903.2.9-1903.2.10.1 are hereby deleted in their entirety.

Section 903.2.10-1903.2.11.1 is amended by deleting the same in its entirety and by substituting in lieu thereof the following:

903.2.10-1903.2.11.1 Stories and basements without openings. An automatic sprinkler system shall be installed throughout every story and basement of all buildings in accordance with Table 903.

Section 903.2.10.1-2903.2.11.1.2 is hereby deleted in its entirety.

Section 903.2.10.1.3903.2.11.1.3 is hereby deleted in its entirety.

Section 903.2.10.3903.2.11.3 is amended by deleting ~~Exception #2 and Exception #3~~ in its entirety.

Section 903.3 shall be deleted in its entirety and substituting in lieu thereof the following:

903.3 Installation requirements. Automatic sprinkler systems shall be designed and installed in accordance with Section 903.3.1 through Section 903.3.7-903.3.8. In addition, a check valve shall be provided in all sprinkler risers.

Section 903.3.1 is amended by adding the following at the end of the paragraph:

The use of XL thin-wall pipe is prohibited.

Section 903.3.1.1.1 is amended by ~~omitting Condition #4 and adding in lieu of the following exception at the conclusion thereof: deleting exempt locations #1, #3 and #4.~~

———"4. Sprinklers may not be required in attics, crawl spaces, floor ceiling spaces, and other concealed spaces that are not used or intended for living purposes or storage if approved by the code official."

Section 903.3.1.2 is amended by deleting the first paragraph and substituting in lieu thereof the following:

Automatic sprinkler systems in Group R occupancies up to and including four stories in height in buildings of Type I & Type II construction shall be permitted to be installed throughout in accordance with NFPA 13R.

Section 903.3.2 is amended by adding the following condition:

———"4. All business and assembly occupancies."

Section 903.3.5 is amended by deleting the words "International Plumbing Code" and substituting in lieu thereof the following:

———"State of Illinois Plumbing Code as adopted and amended by the Village"

Section 903.3.5.3. is amended by adding the following section:

903.3.5.3 Post Indication Valve Prohibited. The use of post indicator valves and wall post indicator valves is prohibited.

Section 903.4 is amended by deleting Exception #2 through Exception #7-#5.

Section 903.6 is hereby added as follows:

———"903.6 ~~Hydraulic information and nameplate.~~ For sprinkler drawing review and approval, a copy of the hydraulic calculations sealed by the fire protection engineer, shall be submitted for each calculated area. For full approval of the system, a copy of each hydraulic nameplate must be submitted."

Section 904.3.1 is amended by deleting the words "ICC Electrical Code" and substituting in lieu thereof the

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following:

———"National Electrical Code as adopted and amended by the Village"

Section 905.2.1 is hereby added as follows:

———**905.2.1 Fire hose valve system.** The fire hose valve piping system shall be:

1. —— A separate riser piping system from the domestic water service.
2. —— Hydraulically calculated for a minimum of 250 gpm at 75 psi at the most hydraulically remote fire hose valve.
3. —— Where system pressures exceed 100 psi, provide Potter reduced pressure field adjustable type valves.

Section 905.3.1 is amended by deleting "30 feet (9144 mm)" and by substituting in lieu thereof the following:

———"22 feet"

Section 905.3.1 is amended by deleting the same in its entirety and substituting in lieu thereof the following:

905.3.1 Height. Class III standpipe systems shall be installed throughout buildings where any one of the following apply: (1) the building is three stories or more in height, measured from the lowest level of fire department vehicle access; (2) where the floor level of the highest story is located more than thirty (30) feet above the lowest level of fire department vehicle access; (3) where the floor level of the lowest story is located more than thirty (30) feet below the highest level of fire department vehicle access.

Section 905.3.2 is amended by deleting the exceptions in their entirety.

Section 905.4 is amended by deleting location #6.

Section 905.4 is further amended by adding the following:

7. The number of risers for multi-story buildings shall be such that all parts of every floor area can be reached by a 30-foot hose stream from a nozzle attached to not more than 100 feet of hose connected to a riser outlet. Standpipe hose connections shall be required to be located in enclosed stairways at each level in multi-story buildings.

8. In all warehouse storage areas where storage exceeds twelve (12) feet in height, provide 2-1/2" fire hose valves with 1-1/2" reducer to a 1-1/2" connection. Locate the valves at each door entrance to the warehouse and /or storage area. Provide additional 2-1/2" fire hose valves throughout the space so that no portion of the warehouse/storage area is more than one hundred ~~twenty (120)~~ fifty (150) feet maximum travel distance to a fire hose valve.

Section 905.7.3 is amended by adding a new section as follows:

905.7.3 Hose connection within the cabinet. The hose connection shall be not more than 5 feet above the floor and consist of a 2 1/2" size, with valves and threads in conformance with Village standards.

Section 905.7.3.1 is hereby added as follows:

———**905.7.3.1 Additional/alternate hose requirement.** An additional or alternate hose connection consisting of one hundred (100) feet of 1-1/2" fire hose, shut-off valve, nozzle, couplings, rack or cabinet may be required as determined by the code official.

Section 907.1.2.1~~907.1.3.1~~ is hereby added as follows:

~~907.1.2.1~~**907.1.3.1 Addressable fire alarm systems.** All new fire alarm systems shall be of the addressable type.

Section 907.1.2.2 is hereby added as follows:

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~~907.1.2.2 Separate zones required.~~ Manual fire alarm pulls, audio visuals, and other detection devices shall be on separate zones per floor of a multi-story building.

~~Section 907.2~~ is amended by deleting the same in its entirety and by substituting in lieu thereof the following:

~~907.2 Where Required.~~ An approved manual and automatic fire alarm system installed in accordance with NFPA 72 shall be provided in all new buildings, structures, and additions governed by this code. For existing buildings, the requirements of the International Fire Code, Section 907.3, as amended, shall apply. The automatic fire detectors shall be smoke detectors. Where ambient conditions prohibit installation of automatic smoke detection, other automatic fire detection shall be allowed.
Exception: Fully Sprinkled Buildings. Detection shall follow International Fire Code 907.3 in Chapter 17 of the Downers Grove Municipal Code.

Section 907.2 is amended by adding the following at the end of the paragraph:

907.2 General Requirements for Manual and Automatic Fire Detection Systems in the Village.

In all new buildings, additions, and buildings constructed under the 2006/2015 International Building & Fire Codes, except in one- and two-family dwellings, a complete manual and automatic fire alarm detection system, connected to the Village's fire alarm board, shall be installed throughout the building in accordance with NFPA 72.

Exception: Fully sprinkled buildings. Fully sprinkled buildings shall have limited detection; the following locations shall have detection installed in all cases:

- (a) corridors
- (b) storage rooms seventy-five (75) square feet or more
- (c) copy rooms
- (d) top of stairways
- (e) boiler rooms
- (f) electrical rooms
- (g) open office areas nine hundred (900) square feet or more
- (h) elevator lobbies
- (i) all mechanical rooms
- (j) above all fire alarm control units
- (k) under raised flooring
- (l) all other open areas and locations deemed necessary by the Fire Code Official
- (m) server/IT rooms seventy-five (75) square feet or more

Section 907.2.1 through Section 907.2.10.4 are amended by deleting the same in their entirety.

~~Section 907.2.12~~ is amended by deleting "75 feet (22 860 mm)" and substituting the following in lieu thereof:
"55 feet"

~~Section 907.2.12~~ is further amended by deleting Exception #2 through Exception #5 in their entirety.

~~Section 907.2.12.3~~ is amended by deleting the first and second sentences of the first paragraph in their entirety and by substituting in lieu thereof the following:

~~907.2.12.3 Fire department communication system.~~ An approved two-way hard-wired and radio fire department communication system designed and installed in accordance with NFPA 72 shall be provided for fire department use. It shall operate between a fire command center complying with Section 911 and elevators, elevator lobbies, emergency and standby power rooms, fire pump rooms, building engineer's office, remote alarm panel and remote sprinkler riser locations, areas of refuge and inside enclosed exit stairways.

~~Section 907.2.12.3~~ is further amended by deleting the exception.

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Section 907.2.12.3.1 is hereby added as follows:

~~————~~ **907.2.12.3.1 Communication system equipment.** The two-way hard-wired communications system shall consist of a telephone system with plug-in handsets capable of use in the designated jacks. Location of the jacks, zoning of the two-way system, and the number of handsets required is subject to review and approval by the Fire Department for site specific conditions.

Section 907.2.12.3.2 is hereby added as follows:

~~————~~ **907.2.12.3.2 High rise wireless communication system standards and testing.** Minimum standards for wireless radio communication systems design and testing shall be obtained from the Fire Prevention Bureau and consist of the following:

1. ~~————~~ A professionally engineered system shall be capable of transmitting at a minimum of -90 decibel-milliwatt (dBm) for over 90% of in-building coverage. The owner shall furnish a test report upon completion of the system installation verifying compliance with this requirement.
2. ~~————~~ The system shall be capable of operating on an independent battery and/or generator system for a period of at least twelve (12) hours without external power input. The battery system shall automatically charge in the presence of external power input. There shall be no connectivity between the radio system and fire alarm system.
3. ~~————~~ Proof of maintenance and an annual inspection by a qualified radio technician shall be provided to the fire department through a certificate of annual inspection.
4. ~~————~~ Village personnel shall have the right to enter onto the property to conduct field testing to be certain that the required level of radio coverage is present.
5. ~~————~~ The property owner shall be responsible for repairs, replacement, or upgrades to the system as directed by the Village should the system fail or no longer function.

Section 907.2.18.1 is amended by deleting the phrase "or similar rooms" and adding the following to #1 after the word "machine": "fire alarm room and sprinkler room".

Section 907.2.19 is amended by adding the words "and automatic fire detection system" after the words "manual fire alarm system".

Section 907.5 is amended by deleting the words "ICC Electrical Code" and substituting in lieu thereof the following:

~~————~~ "National Electrical Code as adopted and amended by the Village"

Section 907.8.2 is amended by deleting "75 feet (22 860 mm)" and substituting the following in lieu thereof:

~~————~~ "55 feet"

Section 907.14 is amended by deleting the same in its entirety and substituting in lieu thereof the following:

~~————~~ **907.14 Monitoring.** All alarm and detection systems as described in Section 907 of this code shall be supervised by a connection to the Village Operations Center per the requirements of Section 17.58 of the Municipal Code and shall transmit alarm, supervisory, and trouble signals.

Exceptions:

1. ~~————~~ Supervisory service is not required for automatic sprinkler systems in one- and two-family dwellings.
2. ~~————~~ Any property within the municipal limits of the Village which is under the jurisdiction of a fire protection district organized pursuant to state law shall connect to the alarm receiving panels of the fire protection district and must be approved by the Village.

Section 907.6.6 is amended by adding the following section:

907.6.6.3 Connection to Village. All fire alarm systems shall be supervised by connection to the Village fire

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alarm receiving panel in the manner specified by the Municipal Code and shall transmit alarm, trouble, and supervisory signals. In lieu of connecting to the Village's alarm receiving panels as set forth above, any property within the municipal limits of Downers Grove which is under the jurisdiction of a fire protection district organized pursuant to state law shall instead connect to the alarm receiving panels of the fire protection district. Such alternative connection shall be according to the fire protection district's rules and regulations for connection. The Fire Code Official is authorized to require the installation of wireless fire alarm monitoring for existing installations as follows:

1. If a fire alarm panel needs replacement;
2. When phone lines have been disconnected or are causing nuisance alarms or monitoring outages.

Section 907.6.6 is amended by deleting Exception #1 and Exception #2.

Section 909.11 is amended by deleting the words "ICC Electrical Code" and substituting in lieu thereof the following:

—————"National Electrical Code as adopted and amended by the Village"

Section 909.12.1 is amended by deleting the words "ICC Electrical Code" and by substituting in lieu thereof the following:

—————"National Electrical Code as adopted and amended by the Village"

Section 909.16.3 is amended by deleting the words "ICC Electrical Code" and substituting in lieu thereof the following:

—————"National Electrical Code as adopted and amended by the Village"

Section 911.1 is amended by deleting 12 in its entirety and by substituting in lieu thereof the following:

—————**911.1 Features.**

—————12. A complete set of fire alarm plans, specifications, instruction manual, and building plans indicating the typical floor plan and detailing the building core, means of egress, fire protection systems, fire-fighting equipment, and fire department access.

Section 911.1 is further amended by adding the following:

—————16. Handsets for the communications system, properly labeled, and in locked box(es).

—————17. A current list of key personnel with phone numbers.

—————18. A number of complete sets of keys for the building, elevators, alarm system, and other locked systems as specified by the Fire Department.

—————19. A high-rise equipment box secured in close proximity to the fire command room. Box and content per the Fire Department's specifications.

Section 911.1.6 is amended by adding the following:

19. Handsets for any required communication system

20. A key box containing all building keys

Section 912.1 is amended by deleting the same in its entirety and substituting in lieu thereof the following:

9.12.1 Installation. Fire Department connections shall be installed in accordance with the NFPA standard applicable to the system design and shall comply with all applicable requirements of the Municipal Code.

Section 912.1.1 is hereby added as follows:

912.1.1 Yard hydrants. Fire hydrants shall be provided around the perimeter of the building in three hundred (300) foot increments. A municipal fire hydrant shall be located within one hundred (100) feet

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of the fire department connection on the fire protection water supply to the building. All locations are subject to review and approval by the code official for site specific conditions.

Section 912.1.1.1 is hereby added as follows:

912.1.1.1 Hydrant testing. Yard hydrants shall be tested annually and a report must be submitted to the Fire Department for review and approval.

Section 912.1.1.1.1 is hereby added as follows:

912.1.1.1.1 Stortz connections. ~~For buildings with large sprinkler systems or water demands as determined by the code official, a~~ minimum of a five (5) inch STORTZ connection is required.

Section 912.5 is amended by deleting the words "International Plumbing Code" and substituting in lieu thereof the following:

— "State of Illinois Plumbing Code as adopted and amended by the Village"

Section 913 FIRE PUMPS is hereby added

Section 913.1913.6 is hereby added as follows:

913.1913.6 Fire pump automatic operation. When a fire pump is installed, it shall operate automatically at all times by connection to an automatically switched emergency power generator sized per the requirements of the National Electrical Code.

Section 913.2 is hereby added as follows:

913.2 Fire pump test headers and valves. Where fire pumps are installed, an outside test header and an OS & Y control valve is required.

Section 913.3913.7 is hereby added as follows:

913.3913.7 Fire rating for valve room and fire pump rom. All rooms containing sprinkler valve equipment and fire pumps shall be separated from adjoining spaces with a minimum of 2-hour rated assemblies.

Section 913.4913.8 is hereby added as follows:

913.4913.8 Access for valve room and fire pump room. A minimum of ~~two~~ 2, 3 foot wide, 1-hour rated ~~exterior doors and a minimum of 1, 3-foot wode, 1-hour rated interior door~~ shall provide access to the valve and fire pump room, ~~located at an interior and exterior wall of the building.~~

CHAPTER 10

Section 1001.3 is amended by adding the the words "and the International Property Maintenance Code, as amended and adopted by the Village", at the end of the sentence.

Section 1003.5 is amended by deleting the exceptions therein and substituting in lieu thereof the following:

Exceptions:

1. A single step with a maximum riser height of seven (7) inches is permitted at exterior doors not required to be accessible by the State of Illinois Accessibility Code.
2. Steps and stairs are permitted at locations as permitted by the State of Illinois Accessibility Code.

Section 1006.31008.3.4 is amended by adding the following at the end of the section:

"Where emergency lighting is powered by a generator, a minimum of twenty percent (20%) of the

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emergency light fixtures shall be provided with battery back-up. ~~In addition~~ For multi-story buildings, battery powered units shall be provided in enclosed stairways ~~at every other landing~~ for proper illumination of each story ~~with no fewer than one (1) provided.~~ "

Section 1007.11009.1 is amended by adding at the end of the first sentence "and all applicable provisions of the State of Illinois Accessibility Code".

Section 1007.11009.1 is further amended by deleting the exceptions.

Section 1007.21009.2 is amended by deleting Condition #1 in its entirety and substituting in lieu thereof the following:

1. Accessible routes complying with the State of Illinois Accessibility Code.

Section 1007.2.11009.2.1 is deleted in its entirety and substituting in lieu thereof the following:

1007.2.11009.2.1 Elevators required. In buildings where a required accessible floor is above or below a level of exit discharge, an elevator shall be provided per the State of Illinois Accessibility Code.

Section 107.2.11009.2.1 is further amended by deleting the exceptions.

Section 1008.1.11010.1.1 is amended by ~~is amended by~~ deleting "28 inches (711 mm)" in Exception #2 only and substituting the following in lieu thereof:

— "32 inches" ~~Exception #2~~

CHAPTER 11

Chapter 11 is amended by deleting the same in its entirety; see State of Illinois Accessibility Code.

CHAPTER 12

Section 1205.4.1 is amended by deleting the words "ICC Electrical Code" and substituting in lieu thereof the following:

— "National Electrical Code as adopted and amended by the Village"

Section 1206.3.3 is amended by deleting the words "International Plumbing Code" and substituting in lieu thereof the following:

— "State of Illinois Plumbing Code as adopted and amended by the Village".

CHAPTER 13

Section 1301.2 is hereby added as follows:

— **1301.2 Computer software programs.** Compliance with the code provisions described therein may be demonstrated with the use of COMcheck software for all building types governed by this code. For projects with documents prepared by a State of Illinois licensed design professional, the submittal shall be sealed by the design professional of record.

CHAPTER 14

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~~Section 1405.10.4~~ is amended by deleting the words "ICC Electrical Code" and substituting in lieu thereof the following:

———"National Electrical Code as adopted and amended by the Village"

CHAPTER 15

~~Section 1502.1~~ is amended by adding the following definitions:

———~~AGGREGATE~~. In roofing, crushed stone, crushed slag or water-worn gravel used for surfacing for roof coverings.

———~~BALLAST~~. Ballast is any item having weight that is used to hold or steady an object. In roofing, ballast comes in the form of large stones or paver systems or light-weight interlocking paver systems and is used to provide uplift resistance for roofing systems that are not adhered or mechanically attached to the roof deck.

~~Section 1503.4~~ is amended by deleting the words "International Plumbing Code" and substituting in lieu thereof the following:

———"State of Illinois Plumbing Code as adopted and amended by the Village"

~~Section 1503.4.1~~ is amended by deleting the words " and Sections 1106 and 1108, as applicable, of the International Plumbing Code" and substituting in lieu thereof the following:

~~"State of Illinois Plumbing Code as adopted and amended by the Village"~~

CHAPTER 16

~~Section 1603.1.6~~ is amended by deleting the words "in Section 1612.3" and substituting in lieu thereof the following:

———"by local flooding data"

~~TABLE 1608.2~~ is hereby deleted in its entirety.

~~Section 1612.3~~ shall be deleted in its entirety and substituting in lieu thereof the following:

1612.3 Establishment of flood hazard areas. To establish flood hazard areas, local flooding data shall apply.

~~Section 1612.5~~ shall be amended by deleting Condition 2 and subsections thereof in their entirety.

~~Figure 1613.5(3) through Figure 1613.5(14)~~ are hereby deleted in their entirety.

CHAPTER 17

~~Section 1701.3~~ is hereby deleted in its entirety.

~~Section 1704.1~~ is amended by deleting Exception #2 and Exception #3 in their entirety.

~~Section 1704.1.1~~ is amended by deleting Exception #1 in its entirety.

~~Section 1704.4~~~~1705.3~~ is amended by deleting the exceptions.

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~~Section 1704.5~~1705.4 is amended by deleting the exceptions.

~~Section 1705.3 through Section 1705.4.2~~ are hereby deleted in their entirety.

~~Section 1707 through Section 1709~~ are hereby deleted in their entirety.

CHAPTER 18

~~Section 1802.2~~ is amended by deleting the exception.

~~Section 1802.2.3~~ is amended by deleting the exception.

~~Section 1802.2.6~~ is hereby deleted in its entirety.

~~Section 1802.2.7~~ is hereby deleted in its entirety.

~~Section 1803.4~~ shall be amended by deleting Condition 3 in its entirety.

~~Section 1805.2.1~~ shall be amended by deleting Condition 2 and Condition 3 in their entirety.

~~Section 1805.2.1~~ shall further be amended by deleting the exceptions.

~~Section 1805.5.1.3~~ is hereby deleted in its entirety.

~~Section 1805.5.5.1~~ shall be amended by deleting Condition 2 in its entirety.

~~Section 1805.5.5.2~~ shall be amended by deleting Condition 2, Condition 3 and Condition 4 in their entirety.

~~Section 1805.9~~ is hereby deleted in its entirety.

~~Section 1807.1~~1805.1 is amended by deleting the first paragraph in its entirety and substituting in lieu thereof the following:

~~1807.1~~1805.1 Where required. Walls or portions thereof that retain earth and enclose interior spaces and floor below grade shall be waterproofed and dampproofed in accordance with this section.

~~Section 1807.1.2.1~~1805.1.2.1 is hereby deleted in its entirety and substituting in lieu thereof the following:

~~1807.1.2.1~~1805.1.2.1 Flood hazard areas. For buildings and structures in flood hazard areas as established by local flooding data, the finished ground level of an under-floor space shall be determined by the provisions of the Municipal Code.

~~Section 1807.2.1~~1805.2.1 is hereby deleted in its entirety and substituting in lieu thereof the following:

~~1807.2.1~~1805.2.1 Floors. Dampproofing materials for floors shall be installed between the floor and the base course required by Section ~~1807.4.1~~1805.4.1.

~~Section 1807.4.3~~ is amended by deleting the "International Plumbing Code" and substituting in lieu thereof the following:

———"State of Illinois Plumbing Code as adopted and amended by the Village and the Municipal Code."

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Section 1807.4.3 is further amended by deleting the exception.

~~**Section 1808.2.23 through 1808.2.23.2.3** are hereby deleted in their entirety.~~

~~**Section 1809.2.2.2.1** is hereby deleted in its entirety.~~

~~**Section 1809.2.2.2.2** is hereby deleted in its entirety.~~

~~**Section 1809.2.3.2.1** is hereby deleted in its entirety.~~

~~**Section 1809.2.3.2.2** is hereby deleted in its entirety.~~

~~**Section 1810.1.2.1** is hereby deleted in its entirety.~~

~~**Section 1810.1.2.2** is hereby deleted in its entirety.~~

~~**Section 1810.3.5** is hereby deleted in its entirety.~~

~~**Section 1810.5.4.1** is hereby deleted in its entirety.~~

~~**Section 1810.6.4.1** is hereby deleted in its entirety.~~

~~**Section 1810.8.4.1** is hereby deleted in its entirety.~~

~~**Section 1811.5** is hereby deleted in its entirety.~~

CHAPTER 19

~~**Section 1904.4** is amended by deleting Condition 11.~~

~~**Section 1908.1.4** is amended by deleting Section 21.2.1.3 and Section 21.2.1.4~~

~~**Section 1908.1.6** is hereby deleted in its entirety.~~

~~**Section 1908.1.15 through Section 1908.1.16** are hereby deleted in their entirety.~~

CHAPTER 21

~~**Section 2106.4 through Section 2106.6** are hereby deleted in their entirety.~~

~~**Section 2109.8 through Section 2109.8.4.7** are hereby deleted in their entirety.~~

~~**Section 2111.4** is hereby deleted in its entirety.~~

~~**Section 2111.4.1** is hereby deleted in its entirety.~~

~~**Section 2112.4** is hereby deleted in its entirety.~~

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~~Section 2113.4~~ is hereby deleted in its entirety.

CHAPTER 22

~~Section 2205.2.2~~ is hereby deleted in its entirety.

~~Section 2205.3.1~~ is hereby deleted in its entirety.

CHAPTER 23

Section 2303.1.2 shall be amended to add the following:

Floor/roof assemblies utilizing wood I-joists, or similar products, shall require a minimum 1-hour UL fire resistance rating design or equivalent.

Section 2303.4.1 shall be amended to add the following:

Floor/roof assemblies utilizing wood trusses shall require a minimum 1-hour UL fire resistance rating design or equivalent.

~~Section 2305.2.4.1~~ is hereby deleted in its entirety.

~~Section 2305.3.11~~ is hereby deleted in its entirety.

~~Section 2307.1.1~~ is hereby deleted in its entirety.

~~Section 2308.12~~ is hereby deleted in its entirety.

~~Section 2308.12.1~~ is hereby deleted in its entirety.

~~Section 2308.12.2~~ is hereby amended to delete the exceptions.

~~Table 2308.12.4~~ is hereby deleted in its entirety.

~~Section 2308.12.6~~ is hereby deleted in its entirety.

~~Section 2308.12.9~~ is hereby deleted in its entirety.

CHAPTER 27

~~Chapter 27~~ is amended by deleting the chapter in its entirety and substituting in lieu thereof the following:

——— See the National Electrical Code as adopted and amended by the Village.

CHAPTER 29

Chapter 29 is amended by deleting the same in its entirety and substituting in lieu thereof the following:

See the State of Illinois Plumbing Code as adopted and amended by the Village.

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CHAPTER 30

Section 3001.2 is hereby deleted in its entirety and substituting in lieu thereof the following:

3001.2 Referenced standards. The design, construction, installation, alteration, repair, and maintenance of elevators and conveying systems and their components shall conform to the State of Illinois Elevator Safety and Regulation Act and to the following state mandated elevator codes as determined by the office of the state fire marshal, division of elevator safety:

Safety Code for Elevators and Escalators (ASME A17.1-2010/CSA, B44-10);

Performance-Based Safety Code for Elevators and Escalators (ASME A17.1-2007/CSA-B44.7-07);

Guide for Inspection of Elevators, Escalators and Moving Walks (ASME A17.2-2010);

Safety Code for Existing Elevators and Escalators (ASME A17.3-2005) but only as required under Section 35(h) and (i) of the Act and subsection (d) of this Section;

Safety Standard for Platform Lifts and Stairway Chairlifts (ASME A18.1-2008);

Standards for the Qualification of Elevator Inspectors (ASME QEI-1-2010);

Safety Requirements for Personnel Hoists and Employee Elevators (ANSI A10.4-2004);

Automated People Mover Standards (ASCE 21, Part 1-2005/2006, ASCE 21, Parts 2 through 4-2008).

Section 3001.3 is hereby deleted in its entirety and substituting in lieu thereof the following:

3001.3 Accessibility. Passenger elevators shall conform to the requirements of the State of Illinois Accessibility Code.

Section 3002.4 is amended by deleting the word "four or more stories above grade plane or four or more stories below grade plane" and by substituting in lieu thereof the following:

"three or more stories, including stories below grade"

CHAPTER 31

Section 3109.1 is amended by deleting the same in its entirety and substituting in lieu thereof the following:

3109.1 General. Swimming pools shall comply with the all applicable sections of this code, the Municipal Code and the State of Illinois Swimming Pool Code.

~~**Section 3109.5.1** is amended by deleting the same in its entirety and substituting in lieu thereof the following:~~

~~**3109.5.1 Suction fittings.** All pool and spa suction outlets shall be provided with a cover that conforms to ASME A112.19.8M-2007 on every drain/gate.~~

CHAPTER 32

Chapter 32 is amended by deleting the same in its entirety.

CHAPTER 33

Section 3305.1 is amended by deleting the same in its entirety and substituting in lieu thereof the following:

3305.1 Facilities required. Sanitary facilities shall be provided during construction, remodeling, or demolition activities in accordance with the Municipal Code and the State of Illinois Plumbing Code.

~~**Section 3306.1** is amended by deleting the same in its entirety and substituting in lieu thereof the following:~~

~~**3306.1 Protection required.** Pedestrians shall be protected during construction, remodeling, and~~

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demolition activities as required by this chapter and Section 7.11.1 of the Municipal Code.

~~Section 3306.2~~ is amended by deleting the same in its entirety and substituting in lieu thereof the following:

~~3306.2 Walkways.~~ A walkway shall be provided for pedestrian travel in front of every construction and demolition site unless permission has been granted for the sidewalk to be fenced or closed. Walkways shall be of sufficient width to accommodate the pedestrian traffic, provide a durable walking surface, and shall be designed to support all imposed loads.

~~Section 3306.6~~ is amended by deleting the same in its entirety and substituting in lieu thereof the following:

~~3306.6 Barrier design.~~ Barriers shall be designed to resist loads required in Chapter 16.

~~Section 3306.7~~ is amended by deleting the exceptions and conditions and substituting in lieu thereof the following:

Exception:

Roofs and supporting structures of covered walkways for new, light-frame construction not exceeding two stories in height are permitted to be designed for a live load of 75 psf or the loads imposed on them, whichever is greater.

~~Section 3311~~ and its subsections are amended by deleting the same in its entirety and substituting in lieu thereof the following:

~~3311 Standpipes.~~ For requirements during construction, the provisions of the International Fire Code shall apply.

CHAPTER 34

~~Section 3401.3~~ is amended by deleting the same in its entirety and substituting in lieu thereof the following:

~~3401.3. Compliance with other codes.~~ Alterations, repairs, additions and changes of occupancy to existing structures shall comply with the provisions for alterations, repairs, additions and changes of occupancy in the International Fire Code, International Fuel Gas Code, International Mechanical Code, State of Illinois Plumbing Code, International Property Maintenance Code, and the National Electrical Code.

~~Section 3402.1~~ is amended by deleting the words "and which are necessary to provide accessibility" from the last sentence of the paragraph for the definition of Technically Infeasible.

~~Section 3403.1~~ is amended by adding the following exception:

~~Exception:~~

~~The provisions of the codes listed in Section 3401.3 shall apply.~~

~~Section 3403.1.1~~ is amended by deleting the words "in Section 1612.3" and substituting in lieu thereof the words:

~~"by local flooding data".~~

~~Section 3403.2.1~~ is deleted in its entirety.

~~Section 3403.2.2~~ is deleted in its entirety.

~~Section 3403.2.3.1~~ shall be amended by deleting Condition 2 and Condition 3 in their entirety.

~~Section 3403.3~~ is amended by adding the following at the end of the first paragraph:

~~"and meet the requirements of all sections of this code and those listed in Section 3401.3"~~

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~~Section 3404.1.3 through Section 3404.4~~ are deleted in their entirety.

~~Section 3406.1~~ is amended by deleting the last sentence of the paragraph and substituting in lieu thereof the following:

———"Subject to the approval of the building official, the use or occupancy of existing buildings shall be permitted to be changed and the building is allowed to be occupied for purposes in other use groups. The provisions of this code and all codes listed in Section 3401.3 shall apply."

~~Section 3407.2~~ is deleted in its entirety.

~~Section 3408.1~~ is amended by adding the following at the end of the first paragraph:

———"for those portions of the structure that are new or rebuilt."

~~Section 3409~~ is deleted in its entirety and substituting in lieu thereof the following:

———**3409 Accessibility for existing buildings.** The provisions of the State of Illinois Accessibility Code shall apply.

~~Section 3410~~ is deleted in its entirety.

CHAPTER 35

Chapter 35 Referenced Standards is amended by deleting the words "International Plumbing Code" and substituting in lieu thereof the following:

———"Current Illinois State Plumbing Code as adopted by the Village."

APPENDIX H

Section H 101.1 is amended by deleting the same in its entirety and substituting in lieu thereof the following:

H 101.1 General. For any provisions not covered by this code the provisions of Chapter 28, Article 9 of the Municipal Code shall apply.

Section H 101.2 is deleted in its entirety.

Section H 102 is deleted in its entirety.

Section H 106.1 is amended by deleting the words "ICC Electrical Code" and substituting in lieu thereof the following:

"National Electrical Code as adopted and amended by the Village"

Section H 106.2 is amended by deleting the words "ICC Electrical Code" and substituting in lieu thereof the following:

"National Electrical Code as adopted and amended by the Village"

Section H 108 through Section H 110 are deleted in their entirety.

Section H 112.1 is amended by deleting the following words from the first sentence:

"constructed entirely of metal or other noncombustible material and"

Section H 112.4 is deleted in its entirety.

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Section H 114 is deleted in its entirety.

Section H 115 is amended by deleting the words "ICC Electrical Code" and substituting in lieu thereof the following:

"National Electrical Code as adopted and amended by the Village"

APPENDIX I

Section I101.1.1 is hereby added as follows:

I101.1.1 Construction Standards. Patio covers shall be constructed of materials and installations as approved by the provisions of this code.

(Ord. No. 1281, § 15; Ord. No. 1370, § 1; Ord. No. 1586, §§ 2, 3, 6; Ord. No. 1747, § 1; Ord. No. 1846, § 1; Ord. No. 2020, § 1; Ord. No. 2089, §§ 1, 2; Ord. No. 2116, § 2; Ord. No. 2122, § 1; Ord. No. 2143, § 4; Ord. No. 2151, §§ 1, 2; Ord. No. 2208, § 1; Ord. No. 2209, § 1; Ord. No. 2397, § 1; Ord. No. 2547, § 2; Ord. No. 2563, § 1; Ord. No. 2584, § 3; Ord. No. 2608, § 2; Ord. No. 2709, § 1; Ord. No. 2768, §1; Ord. No. 2857, § 3; Ord. No. 3118, § 2; Ord. No. 3184, § 3; Ord. No. 3193, § 1; Ord. No. 3391, § 3.)

Section 4. That all ordinances or parts of ordinances in conflict with the provisions of this ordinance are hereby repealed.

Section 5. That this ordinance shall be in full force and effect from and after its passage and publication in the manner provided by law.

Mayor

Passed:

Published:

Attest: _____

Village Clerk

Communities and Fire Districts Requiring Sprinklers

No.	CITY	DATE	COMMERCIAL/RESIDENTIAL SQUARE FEET
1	Long Grove (Municipality)	April, 1988	0/13D
2	Barrington Fire Protection District	September, 1997	0/13D
3	Lake Barrington	December, 1997	0/13D
4	Wheeling	July, 2000	0/13D plus manufactured homes
5	Clarendon Hills	August, 2000	2000/13D
6	Village of Barrington	December, 2000	0/13D
7	Park Ridge	March, 2001	0/13D
8	West Dundee	August, 2001	4,000/13D - all 1-2 family new con.
9	Glenside	2001	13D/3,000 square feet
10	Hoffman Estates	January, 2002	1,000 for all use groups & 13D
11	Glen Ellyn	March, 2002	0/13D
12	Round Lake Beach	March, 2002	0/13D
13	Streamwood	June, 2002	1,000 Commercial/13D
14	LaGrange Park	Aug-03	0/A, E, H, I R1, R2; 2,000/13D
15	Mount Prospect	June, 2003	0/13D + condo conversions & mfg. homes
16	Berkeley	November, 2003	A,E,H,P,R,S - 0/13D / M,B,I - 3000
17	Rolling Meadows	2003	4,000 square feet
18	Matteson Fire Department	January, 2004	0/13D
19	Countryside Fire Protection District	March, 2004	0/13D
20	Huntley Fire Protection District	July, 2004	0/13D
21	North Maine Fire Protection District	July, 2004	0/13D
22	Indian Creek (Countryside FPD)	Feb-00	0/13D
23	Skokie	October, 2004	5,000/13D
24	Long Grove Fire Protection District	November, 2004	13D
25	Hickory Hills	January, 2005	0/13D/multi-family retrofit
26	Justice	February, 2005	0/13D
27	Des Plaines	March, 2005	0/13D
28	Libertyville (Municipality)	March, 2005	1,000/13D
29	Sunnycrest FPD (Flossmoor)	January, 2005	13D
30	Bedford Park Fire Department	July, 2005	0/13D
31	Roselle	Dec-08	13D
32	St. Charles/Countryside FPD	August, 2005	On Hold
33	Oak Forest	August, 2005	0/13D/ +50% Commercial
34	Lincolnwood	October, 2005	5,000/13D
35	Libertyville Fire Protection District	November, 2005	0/13D
36	Bridgeview	November, 2005	0/13D, mfg homes,
37	River Forest	March, 2006	5000/13D + 50 % single-family
38	Glenwood	June, 2006	0/13D + 50% assessed valuation retrofit/ownership changes
39	Palos Hills	August, 2006	0/13D/ Apartment to Condo
40	Villa Park	August/October, 2006	(Hold) 1,500/13D/End 2013
41	Prospect Heights	December, 2006	0/13D
42	Northbrook	February, 2007	5,000/13D plus Townhomes
43	Bellwood	January, 2007	0/13D + 50% Retrofit Apartment to Condo
44	Lake Bluff	March, 2007	0/13D, 75% Additions
45	Lake Zurich Rural Fire Protection District	April, 2007	13D
46	Lincolnshire/Riverwoods Fire Protection District	May, 2007	13D
47	Orland FPD	2007	Unincorporated No Water Supply, 5,000
48	Highwood	August, 2007	0/13D
49	Lisle-Woodridge FPD	October, 2007	5,000 sq. ft.
50	Alsip	October, 2007	0/13D
51	Palatine Rural FPD	November, 2007	0/13D
52	Chicago Ridge	December, 2007	0/13D

Communities and Fire Districts Requiring Sprinklers

53	Pleasantview FPD	January, 2008	Single exit subdivision
54	Country Club Hills	January, 2008	0/13D
55	Park Forest	September, 2008	0-13D
56	Newport Township FPD (Wadsworth)	January, 2009	0/13D
57	Green Oaks	February, 2009	13D
58	Riverside	March, 2009	13D
59	Palos Heights FPD	June, 2009	13D
60	Lake Zurich	September, 2009	13D
61	Palos Fire Protection District	October, 2009	13D/5,000†
62	Crest Hill	December, 2009	0 sqft commercial/ all 13D
63	Normal	January, 2010	13D
64	Burlington Fire Protection District	April, 2010	13D
65	Riverwoods	April, 2010	13D
66	Wilmette	May, 2010	13D/Lightweight Construction
67	Aurora	May, 2010	13D/5,000†
68	Forest Park	May, 2010	0 Sq Ft / 13D
69	St Charles	July, 2010	13D effective 2012
70	Oak Brook	January, 2011	13D
71	Palos Park	March, 2011	NFPA 13D, 5,000†
72	Schaumburg	May, 2011	13D, 1,000 Sq Ft, High Rise Retrofit, Apartment to Condo
73	Central Stickney FPD	June, 2011	0/13D, 2009 IFC with Amendments
74	Glencoe	Jan., 2012	0 sq. ft./13D
75	Flossmoor	March, 2012	13D
76	Norwood Park FPD	April, 2012	2009 IRC/ICC /13D/ 1000 Sq.Ft.
77	Harwood Heights	April, 2012	2009 ICC/IRC/13D/1000 Sq.Ft.
78	Norridge	April, 2012	2009 ICC/IRC/13D/1000 Sq.Ft.
79	South Holland	April, 2012	2009 IRC/13D
80	Manhattan FPD	April, 2012	13D
81	Wood Dale	May, 2012	13D
82	Gurnee	June, 2012	0/13D, 2012 IRC
83	Blue Island	July, 2012	13D
84	Milan	August, 2012	13D, 2012 IRC
85	Vernon Hills	October, 2012	1,000 square feet/13D Lightweight Construction/ 2012 IRC All 13D
86	Elgin	October, 2012	2012 IRC/Future Plats
87	Homewood	October, 2012	5,000 sq. ft.
88	Warren Waukegan FPD	November, 2012	0/13D 2012 IRC
89	Niles	January, 2013	13D
90	Hazelcrest	February, 2013	13D
91	Roselle Fire District	March, 2013	13D
92	Westchester	November, 2013	13D
93	Addison	December, 2013	2012 IRC/13D
94	Riverdale	January, 2014	13D
95	Evanston	February, 2014	2012 IRC/13D LSC 101 2012
96	Elmwood Park	September, 2014	2012 IRC/NFPA 13D
97	Westmont	October, 2014	2012 IRC/NFPA 13D/2016
98	Western Springs	October, 2014	2012 IRC/13D
99	Barrington Countryside FPD	October, 2014	0/13D 2012 IBC
100	Brookfield	January, 2015	2015 IRC/13D
101	Oak Park	January, 2015	2009 IRC/13D

Sprinkler Background Information

General Information

- Residential fire sprinklers are designed for life safety, not property protection
- New homes are typically not safer than older homes because new homes tend to be constructed with lightweight materials, have open floor plans so smoke spreads more rapidly and new furnishings are typically synthetic materials
- Since 2009, model building codes have required fire sprinklers in one and two family dwellings
- Some insurance companies offer discounts for fire sprinklers

Sprinkler system costs

Reported costs of residential fire sprinklers in new single family home construction vary depending on the source and region of the country:

- In 2013, the Northern Illinois Fire Sprinkler Advisory Board (NIFSAB) reported that costs averaged \$2.38 per square foot.
- In 2015, the Village of Westmont collected quotes from qualified sprinkler contractors as part of their 1-year grace period procedures. During that year, 14 applicants opted out of installing residential sprinkler systems and submitted quotes. Their data for these homes which ranged in size from 2,841 sq.ft to 5,866 sq.ft is as follows:
 - Cost range (per sq. ft.): \$1.69 - \$3.68
 - Cost range (per system): \$7,400 - \$13,170
- In 2016, the National Association of Homebuilders (NAHB) reported that the average cost per system nationwide was about \$6,000.

What is a complete residential sprinkler system?

Complete systems typically include sprinkler coverage in all habitable rooms, including but not limited to kitchens, family rooms, basements, and bedrooms. Sprinkler protection is not required in small bathrooms, closets, garages, porches, unused attics and crawl spaces and concealed spaces.

Sprinkler system elements are:

- Sprinkler heads
- Supply lines
- Shut-off valves
- Back-flow devices (to protect domestic water)
- Pressure gauge
- Water flow switch and local alarm bell (optional)
- Outside Horn and Strobe (optional)

What happens if there is a fire and the house is equipped with sprinklers?

Sprinklers only respond to heat, not smoke. Unlike in movies, sprinklers do not all activate together; only the sprinkler closest to the fire will activate. In approximately 90% of home fires, the fire is controlled by a single sprinkler head, flowing at 13 gallons per minute.

The intent of a single family sprinkler system is to control the fire, allowing occupants time to escape; complete extinguishment is not the intended purpose of a home sprinkler system. When functioning properly, a home sprinkler system will keep the fire under control and prevent it from spreading. After firefighters arrive, they will perform clean up operations and turn off the water supply to the sprinkler system, to prevent any additional water damage.

Fire and Sprinkler Statistics

Data compiled by the National Fire Incident Reporting System within FEMA identify the following statistics on fires and sprinklers.

- 83% of fire deaths occur in one and two family dwellings
- The risk of dying in a home fire decreases by about 80% when fire sprinklers are present
- The risk of dying in a home fire decreases by about 50% with smoke alarms alone
- In communities which require fire sprinklers (some for at least 15 years) they have documented: 80% fewer civilian deaths, 70% less property damage, and 65% fewer firefighter injuries
- 90% of the time fires are contained by the operation of a single fire sprinkler

History of fires in single family home

In the past five years (July 2012 through July 2017) the Village of Downers Grove has experienced 38 fires in single family homes.

- 17 resulted in damages of \$100,000 or more
- 13 resulted in damages of \$10,000 to \$99,999
- 8 resulted in damages under \$10,000
- 1 fire resulted in a fatality