

VILLAGE OF DOWNERS GROVE
Report for the Village Council Meeting

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, 2017 Village Council meeting. At the meeting, Commissioner Waldack inquired about building code triggers for additional work. A staff report will be provided on Tuesday.

This item is scheduled for continued discussion at the June 20, 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

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ORDINANCE NO. _____**AN ORDINANCE ADOPTING THE 2015 INTERNATIONAL PROPERTY MAINTANCE 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 7.1400.ART. is hereby amended to read as follows:**7.1400.ART. Article XIV. PROPERTY MAINTENANCE CODE****Section 2. That Section 7.1401. is hereby amended to read as follows:****7.1401. 2015 International Property Maintenance Code--Adoption.**

The ~~2006~~2015 International Property Maintenance Code is hereby adopted for the purpose of protecting the public health, safety and welfare, as hereinafter provided, by 1) establishing minimum standards for basic equipment and facilities for light, ventilation, space heating and sanitation; for space, use and location; for safe and sanitary maintenance; and 2) fixing the responsibilities of owners, operators and occupants; and 3) providing for administration, enforcement and penalties in connection therewith. 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. Said Code, as modified and amended, may be referred to for all purposes as the "Downers Grove Property Maintenance Code" or the "International Property Maintenance 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. 2900, § 2.)

Section 3. That Section 7.1402. is hereby amended to read as follows:**7.1402. International Property Maintenance Code - Amendments.**

The deletions from, modifications and amendments to the ~~2006~~2015 International Property Maintenance Code as referred to in this Article are as follows:

Section 101.1 is amended to read as follows:

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

Section 102.3 shall be amended by deleting the words "International Existing Building Code", "International Plumbing Code", and "International Zoning Code".

Section 102.6 is amended by deleting the same in its entirety.

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

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Section 104 is amended by deleting the same in its entirety and addressed in Chapter 7, Article II of the Downers Grove Municipal Code.

Section 106 is amended by deleting the same in its entirety and addressed in Chapter 7, Article X of the Downers Grove Municipal Code.

Section 107 with the Exception of Section 107.5 is amended by deleting the same in its entirety and addressed in Chapter 7, Article X of the Downers Grove Municipal Code.

Section 108.1.1.1 is hereby added as follows:

~~108.1.1.1 Dangerous structures or premises.~~ For the purposes of this code, any structure or premises that has any or all of the conditions or defects described below shall be considered dangerous:

1. ~~A building or structure, used or intended to be used for dwelling purposes, because of inadequate maintenance, dilapidation, decay, damage, faulty construction or arrangement, inadequate light, ventilation, mechanical or plumbing system, or otherwise, is determined by the code official to be unsanitary, unfit for human habitation or in such a condition that is likely to cause sickness or disease.~~
2. ~~Any building or structure, because of a lack of sufficient or proper fire-resistive construction, fire protection systems, electrical, mechanical, or plumbing system, or other cause is determined by the code official to be a threat to life or health.~~
3. ~~Any portion of a building remaining on a site after the demolition or destruction of the building or structure or whenever any building or structure is abandoned so as to constitute such building or portion thereof as an attractive nuisance or hazard to the public.~~
4. ~~The building or structure or portion thereof, because of dilapidation, deterioration, decay, faulty construction, the removal or movement of some portion of the ground necessary for the support, or for any other reason is likely to partially or completely collapse, or some portion of the foundation or underpinning of the building is likely to fall or give way.~~
5. ~~Any portion of a building, structure, or appurtenance that has been damaged by fire, wind, flood, deterioration, neglect, abandonment, vandalism, or by any other cause to such an extent that it is likely to partially or completely collapse.~~
6. ~~Any means of egress component such as any door, aisle, passageway, stairway, or any walking surface of these components is so warped, torn, loose, or otherwise unsafe, that there is not a safe means of egress, or conformance to the building or fire code provisions relating to existing buildings.~~
7. ~~Any portion of a building, appurtenance, or ornamentation on the exterior thereof is not of sufficient strength or stability, or is not so anchored, or fastened in place so as to be capable of resisting natural or artificial loads or a design value in correlation with the International Building Code.~~
8. ~~Any building or structure that has been constructed, exists, or is maintained in violation of any specific requirement or prohibition applicable to such building or structure by local ordinances to such an extent as to present either a substantial risk of fire, building collapse, or any other threat to life and safety.~~

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Section 108.3 is amended by deleting the following from the end of the first paragraph:

"in accordance with Section 107.3. If the notice pertains to equipment, it shall also be placed on the condemned equipment. The notice shall be in the form prescribed in Section 107.2".

Section 110.2 shall be deleted in its entirety and by substituting in lieu thereof the following:

110.2 Notices and orders. All notices and orders shall comply with Chapter 7, Article X of the Downers Grove Municipal Code.

Section 110.4 shall be deleted in its entirety.

Section 111 and subsequent subsections are amended by deleting the same in their entirety and addressed in Chapter 7, Article IX of the Downers Grove Municipal Code.

Section 112 and subsequent subsections are amended by deleting the same in their entirety and addressed in Chapter 7, Article V of the Downers Grove Municipal Code.

Section 112 shall be added as follows:

112 PRE-OCCUPANCY ORDINANCE COMPLIANCE APPROVAL

Section 112.1 shall be added as follows:

112.1 Inspection for ordinance compliance. An inspection for compliance with all applicable ordinances of the Village of Downers Grove shall be required for any structure, building, commercial tenant space, multi-family common area, property, or portion thereof prior to a change of occupancy associated with a sale, rental, exchange, conversion to condominium, or transfers of possession or control. This inspection is required for all occupancy classification with the exception of one and two-family dwellings.

Section 112.2 shall be added as follows:

112.2 Application. A certificate of ordinance compliance shall be applied for by the owner or tenant no more than one hundred and twenty days prior to the change of occupancy. Application shall be made to the code official upon forms prescribed by such official

Section 112.3 shall be added as follows:

112.3 Certificate of compliance. After it is determined by inspection that the structure complies with Village ordinances including, but not limited to, applicable provisions of this code, the Village of Downers Grove Zoning Code, NFPA Life Safety Code, and the International Fire Code a certificate of ordinance compliance shall be issued. If, upon said inspection, the structure does not comply with the applicable ordinances for the intended use of the space, the code official shall prepare an inspection report enumerating the violations the inspection has uncovered. All violations must then be corrected within a time frame as determined by the Director of Community Development.

Section 112.4 shall be added as follows:

112.4 Fees. All fees related to securing the certificate of ordinance compliance shall be as set forth in Chapter 7, Article VIII of the Downers Grove Municipal Code.

Section 201.3 shall be deleted in its entirety and by substituting in lieu thereof the following:

201.3 Terms defined in other codes. Where terms are not defined in this code and are defined in the International Building Code, International Residential Code, National Electrical Code, State of Illinois Plumbing Code, International Fire Code, or International Mechanical Code, such terms shall have the meanings ascribed to them as stated in those codes.

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Section 302.4 shall be amended for the first sentence to read as follows:

"All premises and exterior property including right-of-way areas shall be maintained free from weeds or plant growth in excess of ten (10) inches."

Section 302.4 shall be further amended by deleting the words:

"in accordance with Section 106.3 and"

Section 302.4.1 shall be added as follows:

302.4.1 Landscaping restrictions. All landscapes and plantings shall comply with the following requirements:

1. Plant material must not pose a safety hazard for the general public at any time of the year as determined by the code official.
2. Planting areas must be properly managed and maintained free of weeds.
3. Ornamental grass and flower shall be cut down to a maximum height of not more than ten (10) inches prior to June 1st of each calendar year.
4. Plant material in the Village right-of-way shall be in compliance with Chapter 19 and 24 of the Village of Downers Grove Municipal Code and shall not create a hazard at or near roadway intersections.

Section 304.1.1 shall be added as follows: ~~amended by deleting the words "International Existing Building Code".~~

~~**304.1.1 Unsafe conditions.** The following conditions shall be determined as unsafe and shall be repaired or replaced to comply with the International Building Code and International Fire Code as required for existing buildings. All items listed must be capable of resisting all nominal loads and load effects:~~

- ~~1. The nominal strength of any structural member is exceeded by nominal loads, the load effects or the required strength.~~
- ~~2. Foundation systems that are not firmly supported by footings, are not plumb and free from open cracks and breaks, or are not properly anchored.~~
- ~~3. Exterior walls that are not anchored to supporting elements or are not plumb and free of holes, cracks, or breaks and loose or rotting materials.~~
- ~~4. Roofing or roofing components that have defects that admit rain, roof surfaces with inadequate drainage, or any portion of the roof framing that is not in good repair with signs of deterioration, fatigue or without proper anchorage.~~
- ~~5. Veneer, cornices, belt courses, corbels, trim, wall facings and similar decorative features not properly anchored.~~
- ~~6. Overhang extensions or projections including chutes, chimneys, canopies, signs, awnings, fire escapes, and exhaust ducts not properly anchored.~~
- ~~7. Exterior stairs, decks, porches, balconies, and all similar appurtenances attached thereto, including guards and handrails, are not structurally sound or properly anchored.~~
- ~~8. Steel members that have been subjected to deterioration, elastic or ultimate deformation, metal fatigue, or detached, dislodged, or failing connections.~~
- ~~9. Woods members that have been subjected to deterioration, ultimate deformation, damage from insects or rodents, fire damage beyond charring, significant splits and checks, horizontal or vertical shear cracks, excessive cutting or notching, detached, dislodged or failing connections, inadequate support.~~
- ~~10. Concrete or masonry that has been subjected to deterioration, ultimate deformation, fractures, fissures, spalling, exposed reinforcement, detached dislodged or failing connections.~~
- ~~11. Aluminum that has been subjected to deterioration, corrosion, elastic or ultimate deformation, stress or strain cracks, joint fatigue, detached, dislodged, or failing connections.~~

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Section 304.14 shall be amended to include the following dates:
"from April 1st to November 1st"

Section 305.1.1 shall be added as follows: ~~amended by deleting the words "International Existing Building Code".~~

~~**305.1.1 Unsafe conditions.** The following conditions shall be determined as unsafe and shall be repaired or replaced to comply with the International Building Code and the International Fire Code as required for existing buildings. All items listed must be capable of resisting all nominal loads and load effects:~~

- ~~1. The nominal strength of any structural member is exceeded by nominal loads, the load effects or the required strength.~~
- ~~2. The anchorage of the floor or roof to walls or columns, and of walls and columns to foundations is not structurally sound or properly anchored.~~
- ~~3. Stairs, landings, balconies and all similar walking surfaces, including guards and handrails, are not structurally sound or properly anchored.~~
- ~~4. Steel members that have been subjected to deterioration, ultimate deformation, metal fatigue, or detached, dislodged, or failing connections.~~
- ~~5. Wood members that have been subjected to deterioration, ultimate deformation, damage from insects or rodents, fire damage beyond charring, significant splits and checks, horizontal or vertical shear cracks, excessive cutting or notching, detached, dislodged or failing connections, or inadequate support.~~

Section 306.1307.1 is amended by deleting the exception.

Section 404.3 shall be deleted in its entirety and by substituting in lieu thereof the following:

~~**404.3 Minimum ceiling heights.** Habitable spaces, hallways, corridors, laundry areas, bathrooms, and toilet rooms shall have a clear ceiling height of not less than seven (7) feet.~~

~~Exceptions:~~

- ~~1. In one and two family dwellings, beams or girders spaced not less than four (4) feet on center projecting not more than six (6) inches below the required ceiling height~~
- ~~2. Basement rooms in one and two family dwellings may have a ceiling height of not less than 6 feet 8 inches, with not less than six (6) feet four (4) inches of clear height under beams, girders, ducts and similar obstructions.~~
- ~~3. Rooms occupied exclusively for sleeping, study or similar purposes and having a sloped ceiling over all or part of the room, with a clear ceiling height of at least seven (7) feet over not less than one half of the required minimum floor area. In calculating the floor area of such rooms, only those portions of the floor area with a clear ceiling height of five (5) feet or more shall be included.~~

Section 404.4 shall be deleted in its entirety and by substituting in lieu thereof the following:

~~**404.4 Minimum room areas.** Every dwelling unit shall have at least one habitable room that shall have not less than one hundred twenty (120) square feet of gross floor area.~~

Section 404.4.1 shall be deleted in its entirety and by substituting in lieu thereof the following:

~~**404.4.1 Other rooms.** Other habitable rooms shall have a floor area of not less than seventy (70) square feet.~~

~~Exceptions:~~

- ~~1. Kitchens.~~

Section 505.1 is amended by deleting the words "International Plumbing Code" and substituting in lieu thereof the following:

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

Section 306.1.1 is amended by deleting the words "or the International Existing Building Code".

Section 602.2 shall be deleted in its entirety and by substituting in lieu thereof the following:

602.2 Residential occupancies. Dwellings shall be provided with heating facilities capable of maintaining a room temperature of sixty-eight (68) degrees in all habitable rooms, bathrooms, and toilet rooms when the temperature is above negative four (-4) degrees outside. Cooking appliances shall not be used to provide space heating to meet the requirements of this section.

Section 602.3 shall be amended by adding the following dates:

"from October 1st to May 15th"

Section 602.3 shall further be amended by deleting Exception #1 ~~and #2.~~ in its entirety and substituting in lieu thereof the following:

1. When the outdoor temperature is below negative four (-4) degrees, maintenance of the minimum room temperature shall not be required provided that the heating system is operating at its full design capacity.

~~**Section 602.3** shall further be amended by deleting Exception #2.~~

Section 602.4 shall be amended by adding the following dates:

"from October 1st to May 15th"

~~**Section 604.2** 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 702.1 is amended by adding the words "and International Building Code".

Section 702.2 is amended by adding the words "and International Building Code".

Section 704.1 is amended by adding the words "and International Building Code".

Section 704.2 is amended by adding the words "and International Building Code".

~~**Section 704.3** is amended by deleting the first sentence in its entirety and substituting in lieu thereof the following:~~

~~"In Group R-3 occupancies, single station smoke alarms shall receive their primary power from the building wiring provided that such wiring is served from a commercial source and shall be equipped with a battery backup."~~

~~**Section 704.4** is amended by deleting the first sentence and substituting in lieu thereof the following:~~

~~"Where more than one smoke alarm is required to be installed within an individual dwelling unit in Group R-3 and in dwellings not regulated as Group R occupancies, the smoke alarms shall be interconnected in such a manner that the activation on one alarm will activate all of the alarms in the individual unit."~~

~~**Section 704.5** is hereby added as follows:~~

~~**704.5 Carbon Monoxide Detection.** Every dwelling unit shall be equipped with at least one approved carbon monoxide alarm within fifteen (15) feet of every room used for sleeping purposes. The~~

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~~carbon monoxide alarm may be combined with the smoke detecting devices provided that the combined unit emits an alarm in a manner that clearly differentiates the hazards. The carbon monoxide alarms may be either battery powered, plug-in with battery back-up, or wired into the structure's AC power line with a secondary battery back-up.~~

Referenced Standards

~~_____ Delete all references to the "ICC Electrical Code" and substitute in lieu thereof the following:
 _____ "National Electrical Code as adopted and amended by the Village"~~

Delete all references to the "International Plumbing Code and substitute in lieu thereof the following:

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

Delete all references to the "International Zoning Code" and substitute in lieu thereof the following:

"Downers Grove Zoning Ordinance as adopted and amended by the Village"

~~_____ Delete all references to the "International Existing Building Code"~~

(Ord. No. 2900, § 2.)

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