

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

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

SYNOPSIS

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

STRATEGIC PLAN ALIGNMENT

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

FISCAL IMPACT

N/A

UPDATE & RECOMMENDATION

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

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

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

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

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

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

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

BACKGROUND

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

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

The specific codes targeted for adoption are:

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

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

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

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

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

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

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

ATTACHMENT
Ordinance

ORDINANCE NO. _____

**AN ORDINANCE ADOPTING THE 2006 INTERNATIONAL MECHANICAL CODE
AND AMENDMENTS THERETO**

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

Section 1. Section 7.53. is hereby renumbered to be Section 7.1701.

7.53. 2006 International Mechanical Code - Adoption.

The International Code Council ~~2000~~2006 International Mechanical Code, as promulgated by the International Code Council ("ICC"), being particularly the ~~2000~~2006 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 International Mechanical Code, as modified and amended, may be referred to for all purposes as the "Downers Grove International Mechanical Code" or the "Mechanical 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.

Section 2. Section 7.54. is hereby repealed in its entirety

7.54. Definitions.

~~For the purposes of the Mechanical Code, the following words and phrases shall have the meanings respectively ascribed to them by this Article:~~

~~_____ Code official. The Director of Community Development of the Village.~~

Section 3. Section 7.55. is hereby renumbered to be Section 7.1702.

7.55. International Mechanical Code - Amendments.

The deletions from and modifications and amendments to the International Mechanical Code as referred in ~~Section 7-53~~this Article are the following:

~~(1) Section 101.1 is amended by deleting the same in its entirety~~ and substituting in lieu thereof the following:

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

Section 101.2 is amended by adding the following at the end of the first paragraph:

"The installation of fuel gas distribution piping and equipment, fuel gas-fired appliances and fuel gas-fired appliance venting systems shall be regulated by the International Fuel Gas Code and this code"

Section 101.2 is further amended to add the following exception"

2006 Mechanical Code

Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories high with separate means of egress and their accessory structures shall also comply with Chapters 12 through 23 of the International Residential Code.

Section 102.5 is amended by deleting the same in its entirety.

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

Section 102.7 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.

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 with the Exception of Section 106.2 is amended by deleting the same in its entirety and addressed in Chapter 7, Article III of the Downers Grove Municipal Code.

Section 108 with the Exception of Section 108.7 is amended by deleting the same in its entirety and addressed in Chapter 7, Article X of the Downers Grove Municipal Code.

Section 109 is amended by deleting the same in its entirety and are addressed in Chapter 7, Article IX of the Downers Grove Municipal Code.

~~(2) Sections 103.1, 103.2 and 103.3 are amended by deleting the same in their entirety.~~

~~(3) Section 106.5.3 is amended by deleting the same in its entirety and substituting in lieu thereof the following:~~

~~_____ The code official shall authorize the refunding of fees as follows:~~

~~_____ a. The full amount of any fees erroneously paid or collected hereunder, except that review fees and twenty five percent (25%) of the administrative fee will not be refunded.~~

~~_____ b. Not more than fifty percent (50%) of the permit fee will be refunded in the event that work has not commenced within sixty (60) days of issuance of the permit.~~

~~_____ c. There shall be no refund of any fees if the issuance date of the permit is sixty one (61) days old or if any work pertaining to the permit has started.~~

~~(4) Section 109 is amended by deleting the same in its entirety and substituting in lieu thereof the following:~~

~~_____ "All appeals concerning the interpretation of the Mechanical Code shall be heard by the Board of Appeals pursuant to Section 7-9(h) of the Downers Grove Municipal Code."~~

~~(5) **Section 201.3** is amended by deleting the same in its entirety words "ICC Electrical Code" and "International Plumbing Code" and substituting in lieu thereof the following:~~

~~2002 National Electrical Code and Illinois State Plumbing Code~~

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

2006 Mechanical Code

Section 202 is amended by adding the following definitions:

Combination Fire/Smoke Damper. A listed device installed in ducts and air transfer openings designed to close automatically upon the detection of heat and resist the passage of flame and smoke. The device is installed to operate automatically and be controlled by a smoke detection system.

Fire Damper. A listed device installed in ducts and air transfer openings designed to close automatically upon detection of heat and to restrict the passage of flame. Fire dampers are classified for use in either static systems that will automatically shut down in the event of a fire, or in dynamic systems that continue to operate during a fire. A dynamic fire damper is tested and rated for closure under an elevated temperature air flow.

Make Up Air. The amount or percentage of fresh air delivered or mixed with recirculating air on a normal cycle of air by volume.

Occupiable Space. An enclosed space intended for human activities, excluding those spaces intended primarily for other purposes, such as storage rooms and equipment rooms, that are only intended to be occupied occasionally and for short periods of time.

Section 202 is further amended by amending the following definition:

Smoke Damper. A listed device that is designed to resist the passage of air and smoke. The device is arranged to operate automatically, controlled by a smoke detection system, and when required, is capable of being positioned from a remote command station.

Section 301.3 is amended by adding the following at the end of the paragraph:

"and the applicable provisions of this code."

~~(6)~~ **Section 301.7** is amended by deleting the words "ICC Electrical Code" and substituting in lieu thereof the following:

2002 "National Electrical Code as adopted and amended by the Village"

~~(7)~~ **Section 301.8** is amended by deleting the words "International Plumbing Code" and substituting in lieu thereof the following:

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

Section 301.13 is amended by deleting the exception.

Section 301.13.1 is deleted in its entirety.

~~(8)~~ **Section 306.3.1** is amended by deleting the words "ICC Electrical Code" and substituting in lieu thereof the following:

2002 "National Electrical Code as adopted and amended by the Village"

~~(9)~~ **Section 306.4.1** is amended by deleting the words "ICC Electrical Code" and substituting in lieu thereof the following:

2002 "National Electrical Code as adopted and amended by the Village"

Section 306.5.2 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 308.8 is amended by adding the following at the end of the paragraph:

"and the International Residential Code."

2006 Mechanical Code

Section 308.10 is amended adding the following at the end of the paragraph:
"and the International Residential Code."

Section 511.1.1 is amended by deleting the words "ICC Electrical Code" in the exceptions and substituting in lieu thereof the following:
"National Electrical Code as adopted and amended by the Village"

~~(10)~~ **Section 512.2** is amended by deleting the words "International Plumbing Code" and substituting in lieu thereof the following:
Illinois" State of Illinois Plumbing Code as adopted and amended by the Village"

~~(11)~~ **Section 513.11** is amended by deleting the words "ICC Electrical Code" and substituting in lieu thereof the following:
2002"National Electrical Code as adopted and amended by the Village"

~~(12)~~ **Section 513.12.1** is amended by deleting the words "ICC Electrical Code" and substituting in lieu thereof the following:
2002"National Electrical Code as adopted and amended by the Village"

~~(13)~~ **Section 602.2.1.1** is amended by deleting the words "ICC Electrical Code" and substituting in lieu thereof the following:
2002"National Electrical Code as adopted and amended by the Village"

Section 602.3 is amended by deleting the same in its entirety and substituting in lieu thereof the following:
602.3 Stud cavity and joist space plenums. Stud wall cavities and the spaces between solid floor joists shall not be utilized for supply or return air plenums serving habitable spaces.

Section 603.4.1 is hereby added as follows:
603.4.1 Minimum fasteners. Round metallic ducts shall be mechanically fastened by means of at least three sheet metal screws or rivets spaced equally around the joint.

Section 607.1.1.1 is hereby added as follows:
607.1.1.1 Ducts that penetrate non fire-resistance rated assemblies. The space around a duct penetrating a non fire-resistance rated assembly shall comply with Section 716.6.3 of the International Building Code.

Section 607.5.6 is hereby added as follows:
607.5.6 Exterior walls. Ducts and air transfer openings in fire-resistance rated exterior walls required to have protected openings in accordance with Section 704.14 of the International Building Code shall be protected with listed fire dampers installed in accordance with their listing.

~~(14)~~ **Section 908.5** is amended by deleting the words "International Plumbing Code" and substituting in lieu thereof the following:
Illinois" State of Illinois Plumbing Code as adopted and amended by the Village"

~~(15)~~ **Section 1002.1** is amended by deleting the words "International Plumbing Code" and substituting in lieu thereof the following:
Illinois" State of Illinois Plumbing Code as adopted and amended by the Village"

2006 Mechanical Code

~~(16)~~ **Section 1002.2** is amended by deleting the words "International Plumbing Code" and substituting in lieu thereof the following:

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

~~(17)~~ **Section 1002.3** is amended by deleting the words "International Plumbing Code" and substituting in lieu thereof the following:

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

Section 1005.2 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 1006.6 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"

~~(18)~~ **Section 1008.2** is amended by deleting the words "International Plumbing Code" and substituting in lieu thereof the following:

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

~~(19)~~ **Section 1009.3** is amended by deleting the words "International Plumbing Code" and substituting in lieu thereof the following:

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

~~(20)~~ **Section 1101.4** is amended by deleting the words "International Plumbing Code" and substituting in lieu thereof the following:

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

Section 1106.3 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 1106.4 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"

~~(21)~~ ~~Sub~~**Section 1201.1** is amended by deleting the words "International Plumbing Code" and substituting in lieu thereof the following:

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

Section 1204.1 is amended by deleting the exception.

Section 1206.2 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 1206.3 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"

2006 Mechanical Code

Section 1301.6 is hereby added as follows:

1301.6 State of Illinois Regulations. All tank installations and removals shall also comply with the applicable regulations of the Office of the State Fire Marshall.

Section 1305.2.1 shall be deleted in its entirety and substituting in lieu thereof the following:

1305.2.1 Flood hazard. All fuel oil pipe, equipment and appliances located in flood hazard areas shall be located above the design flood elevation.

Section 1401.2 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"

~~(22) Referenced Standards are amended by deleting the words "International Plumbing Code" and substituting in lieu thereof the following:~~

~~Illinois State Plumbing Code~~

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 November 6, 2009.

Mayor

Passed:

Published:

Attest: _____

Village Clerk