



Agenda Item No: 14

City Council
Agenda Supplement

Meeting Date: February 20, 2018

Item: Discussion of 2018 International Building Codes

Recommendation: For information only.

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Background:

The City last had a significant update in its building codes in 2008, when it adopted the 2006 International Code Council codes. The City has been reviewing various updates that have been published by the ICC and other agencies, and is suggesting that the City Council adopt the 2018 building codes. Below is a table that shows the current version that the City is using, and the version or code that will either update or replace the code:

<i>Proposed Code Version</i>	<i>Current Code Version</i>	<i>Year Adopted</i>
2018 International Building Code	2006 International Building Code	2008
2018 International Existing Building Code	N/A	N/A
2018 International Fire Code	2006 Fire Code	2008
2018 International Fuel Gas Code	2006 International Fuel Gas Code	2008
2018 International Mechanical Code	2006 International Mechanical Code	2008
2018 International Property Maintenance Code	2006 International Property Maintenance Code (Currently called the "Housing Code")	2008
2018 International Residential Code	2006 International Residential Code	2008
2017 National Electrical Code	2005 National Electrical Code	2008

The updated codes represent the most current advances in life safety building codes and add clarity to the City's existing codes. The updated codes will address the amendments that the City has adopted in the past, as well as the amendments that are outdated and ineffective, and should not be perpetuated. Any development or permit application that was formally submitted to the City prior to the date of adopting the new codes will be subject to enforcement under the previous version of the code.

Benefits of Adopting the 2018 Codes

- **The 2018 Codes would represent an update to our existing codes by incorporating life safety provisions that have been added since the adoption of the 2006 ICC code series. Specifically; language has been added to compensate for single family homes constructed without sprinklers in the form of fire rated assemblies, regulations for operable window opening limitations to protect children from accidental falls and revisions to the Means of Egress section.**
- **Many of the discrepancies in the older codes have been corrected in the new proposed codes. The new 2018 Residential Code has a section that specifically addresses deck construction. This will provide the contractors, plan reviewers and inspectors with specific guidelines for deck construction.**
- **The new codes will also incorporate braced wall construction techniques which are currently not enforced. This provision provides for a structure which is constructed to withstand higher wind speeds which will be a benefit for owners and occupants of structures.**

Summary of Changes from Existing Codes to the Proposed Codes

INTERNATIONAL BUILDING CODE

1. Provisions specific to the construction of public parking garages added to code
2. Provisions for storm shelter construction included in the code

Provisions apply to new construction of educational use group buildings

3. Requirements specific to ambulatory care facilities added to code
4. Means of egress chapter expanded and clarified providing more detail
5. Load calculation for business use group altered to allow for a larger space to be used

Change will benefit property owners as existing buildings may have additional opportunities for reuse.

6. Requirements for window fall protection.

Change provides for an enhanced safety feature for residents

7. Requirements for carbon monoxide detectors

Change provides for an enhanced safety feature for residents

8. Chapter addressing existing building repairs and remodel removed from code and new Existing Building Code created by ICC

Change was initiated in 2015 code series. New code provides property owners with clarification and may provide for some code provision relief on remodeling of existing buildings

9. Provisions for braced wall panels created

Requirement expected to add minimal cost to overall construction cost

INTERNATIONAL RESIDENTIAL CODE

1. Fire sprinkler requirement added for all new single family, duplex and townhome construction

Sprinkler requirement added to code in 2012. The 2018 code has provisions to add safety features such as drywall or limited area sprinkler for the floor joists of basements. The removal of the sprinkler requirement for single family and duplex construction matches our existing codes and will not add cost to construction.

2. Requirements for floor protections in buildings not equipped with an automatic fire sprinkler system

The addition of the floor protection for sprinkled buildings allows for the removal of the requirement in single family and duplex construction and provides an enhanced level of protection.

3. Fire resistant construction section expanded for fire separation requirements for added protection when sprinklers are not installed.

The addition of the floor protection for sprinkled buildings allows for the removal of the requirement in single family and duplex construction and provides an enhanced level of protection.

4. Door into house from garage required to be self-closing.

Requirement provides additional life safety protection for residents

5. Requirements for window fall protection.

Change provides for an enhanced safety feature for residents

6. Requirements for carbon monoxide detectors

Change provides for an enhanced safety feature for residents

7. Section 507 Decks created

Change provides contractors, property owners and plan reviewers with a set of standards specific to deck construction.

8. Additional requirements for deck attachments to resist lateral loads added

Change provides for an increased level of safety for decks. Requirement for additional connections adds minimal costs.

9. Provisions for braced wall panels created

Requirement expected to add minimal cost to overall construction cost.

10. Provisions created for basement remodel of existing homes that may not require an emergency egress window

Change provides for an enhanced ability to remodel an existing basement without additional costs.

INTERNATIONAL PROPERTY MAINTENANCE CODE

1. Minimum area requirements for overcrowding provided.

Change will provide clear area requirements for occupancy

2. Requirements for grease trap maintenance.

Change will allow for the ability to ensure compliance. This ability will provide Public Works the ability to ensure responsible use of municipal sewer services.

3. Language added for repairs to electrical systems due to water damage

Change will provide the ability to ensure electrical systems are fully operational after subject to a flooding event. This will provide an enhanced level of safety for residents.

4. Language added for repairs to electrical systems due to fire damage

Change will provide the ability to ensure electrical systems are fully operational after subject to a flooding event. This will provide an enhanced level of safety for residents.

5. Chapter 7 Fire Safety Requirements expanded

This will provide an enhanced level of safety for residents.

INTERNATIONAL EXISTING BUILDING CODE

1. Provisions of new code are intended to replace Chapter 34 of the current IBC and provide designers with an alternate path for compliance
2. Section 305.8.10 similar to the IAC. Compliance is only required when the work includes the bathroom during a change of occupancy

This provision will allow property owners to reuse existing structures for new tenants without requirement for the creation of compliant bathrooms in some instances.

3. Section 405.2.1 allows for the repair of an existing element that does not meet current code requirements

Provision can be used in the case of an older house with porch that has low guardrail. This would be a cost saving for homeowners allowing the reuse of an existing guardrail.

4. Section 503.1 allows for the alteration of a building that doesn't meet code requirements as long as the structure is not less compliant when complete.

Current practice now specifically covered under code as allowable. This would be a cost saving for homeowners.

5. Section 505.3 allows for a non-compliant egress window to be installed as a replacement in an existing opening

Current practice now covered under code as allowable. This would be a cost saving for homeowners.

NATIONAL ELECTRIC CODE

1. Allow for the use of non-metallic cable- Romex.

Use currently prohibited, change will provide homeowners another option which may reduce overall construction costs.

2. Requirement for all ceiling boxes to have 3-wire installation

Minimal cost at time of installation which would provide a cost savings for future ceiling fan installation

3. Requirement to provide 20 amp dedicated circuit to garage

Will provide additional power for potential heavy load uses

4. Requirement to provide 20 amp dedicated circuit to outside electrical outlet

Will provide additional power for potential heavy load uses

5. Requirement for GFCI protection of dishwasher power supply

Requirement expected to add minimal cost to overall construction cost.

6. AFCI protection expanded to include entire house

Change was initiated in 2014 NEC. Requirement expected to add minimal cost to overall construction cost.

7. Requirement for GFCI protection of all outlets in laundry room

Exception created for outlets serving unit. Requirement expected to add minimal cost to overall construction cost.

INTERNATIONAL MECHANICAL CODE

1. Locking access port caps required to prevent unauthorized access to potentially dangerous chemicals if inhaled

Change is a life safety issue and should not have a significant impact on cost

2. Where exhaust duct equivalent length exceeds 35 feet the equivalent length shall be identified on a permanent label or tag. Label or tag shall be mounted within 6 feet of the exhaust duct connection.

Change is for future information and should not have a significant impact on cost

3. Section 805.7 added providing specific clearance requirements for factory built chimneys which pass through insulated assemblies

Change is a life safety issue and should not have a significant impact on cost

4. Section 14 Solar Thermal Systems multiple changes to provide more details on installation and safety measures

Change is a life safety issue and should not have a significant impact on cost

INTERNATIONAL FIRE CODE

Fire code officials, building officials, contractors, and others involved in the field of fire safety recognize the need for a modern, up-to-date fire code. The International Fire Code (IFC), 2018 Edition, is intended to meet these needs through model code regulations that safeguard the public health and safety.

Adoption of the 2018 IFC will allow the Fire Rescue Department to keep current with changes in the building industry such as: mobile food preparation vehicle requirements, Lockdown plans for schools, carbon monoxide detection requirements, solar photovoltaic power system requirements, outdoor assembly event requirements, and on-demand mobile fueling operations.

Many of the revisions to the City's Fire Code and amendments are minor revisions to section numbers or titles to remain consistent with the 2018 IFC or language changes to clarify code

requirements. In the 2018 IFC, Chapter 31 has been expanded greatly over the years and now includes the language from Section 2405, Public Events, rendering this section unneeded.

No changes are being proposed to the other building codes utilized by the City, including:

- 2014 Illinois Plumbing Code
 - The City adopted and updated the 2014 Illinois State Plumbing Code on May 17, 2016
- 2015 International Energy Conservation Code
 - Adoption of the most current Energy Conservation Code is automatic by State mandate. The State typically notifies municipalities of enforcement start date between March and June of year created. That notification of enforcement of 2018 IECC will begin soon. A review of the code does not indicate major revisions or additional costs associated with update.
- 1997 Illinois Accessibility Code
 - This is a State code and this the most current version of this code
- 2000 National Fire Protection Association Life Safety Code
 - This is this the most current version of this code adopted by the State of Illinois

The City adopted and updated the 2014 Illinois State Plumbing Code on May 17, 2016.

The City is adopting the new International Existing Building Code. This new code from ICC addresses the alteration, remodeling, and maintenance of existing buildings. Previously, these requirements were in the International Building Code. The City is also inserting the separate swimming pool section of the City Code into the Residential Code Chapter. Additionally, the Property Maintenance Code chapter is being renamed from the old Housing Code title to reflect the codes therein more accurately.

Public Outreach

After the initial informational presentation to the City Council on February 20, 2018, then the proposed Codes will be available on the City's website for comment; a public input session will be held on February 28, 2018 at 4:00pm; and a presentation will be provided to the Chamber of Commerce's Business Committee. Any comments or questions from the development community will be compiled for the City Council's information.