



Lake County

Building Code Update Analysis

Proposed Amendments to the 2012 International Code Conference Building Codes And the NFPA 70 National Electrical Code 2011

3/21/2014



Lake County

Building Code Update Analysis

PROPOSED AMENDMENTS TO THE ICC
INTERNATIONAL BUILDING CODE 2012

PROPOSED AMENDMENTS TO THE
ICC INTERNATIONAL BUILDING CODE 2012 EDITION

There are no significant differences between the 2006 International Building Code and the 2012 International Building Code. This code regulates new commercial buildings and alterations to existing commercial buildings.

General Amendments

#1 ICC International Energy Conservation Code

Any and all references to the ICC International Energy Conservation Code or Chapter 13 are hereby deleted and replaced with the State of Illinois Energy Conservation Code.

The state of Illinois energy conservation code is mandated by state law. It adopts the 2012 International Energy Conservation Code with several minor amendments.

#2 ICC International Plumbing Code

Any and all references to the ICC International Plumbing Code are hereby deleted and replaced with the State of Illinois Plumbing Code, current edition.

The state of Illinois Plumbing Code is mandated by state law. We currently have several amendments to this code that make it more restrictive. The state code is in the process of being rewritten and at that time we will review the new code and present any suggested amendments to the County board.

#3 ICC International Property Maintenance Code

Any and all references to the ICC International Property Maintenance Code are hereby deleted and replaced with the “**Lake County Nuisance Ordinance**”.

Lake County currently has a nuisance ordinance that addresses property maintenance issues. The nuisance ordinance can be amended and updated as needed.

#4 ICC International Private Sewage Disposal Code

Any and all references to the ICC International Private Sewage Disposal Code are hereby deleted and replaced with the “**Lake County Board of Health Ordinance Article V**”

#5 ICC International Building Code

Any and all references in the ICC International Building Code that has the words “**fire code official**” shall be changed to read “**Building Official**”.

It is important that Lake County maintain itself as the authority having jurisdiction when it comes to all building code issues.

Specific Amendments

#6 Page 1	Section 101.1	Insert the words “ Lake County Planning, Building & Development ” to replace “[NAME OF JURISDICTION]”.
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#7 Page 1	Section 101.2 Exception	Delete all the words that are after “detached one and two family dwellings”.
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*The intention of this amendment is to regulate all structures that contain more than two dwelling units under the rules of the **International Building Code***

#8 Page 2	Section 103	Delete the words “ DEPARTMENT OF BUILDING SAFETY ” and insert the words “ Planning, Building & Development Department ”.
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#9 Page2	Section 103.1	Delete the words “Department of Building Safety” and insert the words “ Planning, Building & Development Department ”.
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#10 Page 2	Section 103.3	Delete the last sentence with no substitution.
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This sentence references the International Property Maintenance Code. Property maintenance issues are addressed through the Lake County nuisance ordinance.

#11 Page 3	Section 105.1.1	Delete the sub-section with no substitution.
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#12 Page 3 Section 105.1.2

Delete the sub-section with no substitution.

The above two sub sections would allow the issuance of annual permits for routine maintenance of structures by qualified tradepersons.

#13 Page 3 & 4

Section 105.2 **Building**

Amend Item # 1. ~~One story detached accessory structures used as tool and storage sheds, p~~
Playhouses and similar uses, provided the floor area does not exceed 120 square feet.

Item # 6 Delete the words “and are not part of an accessible route” at the end of the paragraph.

Item #6 would not require permits for sidewalks. The proposed amendment would require permits for sidewalks that are part of an accessible route. This gives Lake County the ability to regulate sidewalks required for accessibility to public buildings.

Delete with no substitution Items 2, 3, 4, 5, and 8.

Item #2 exempts fences less than six feet tall from permits. Permits or registrations should be required for all fences.

Item #3 exempts permits for oil derricks. While it is unlikely we will ever have an oil derrick constructed in unincorporated Lake County, if it were to happen we should maintain jurisdiction.

Item #4 exempts retaining walls less than 4 feet from permit unless they support a surcharge or impounding class I, II or IIIA liquids. (The class I, II or IIIA designation, defines the flammability of the liquid) Lake County currently requires permits for all retaining walls except small decorative landscape features.

Item #5 exempts water tanks supported directly on grade and the capacity does not exceed 5000 gallons in the ratio of height to diameter or width does not exceed 2:1. Lake County should retain jurisdiction over all above ground water storage tanks.

Item #8 exempts temporary motion picture, television and theater stage sets and scenery.

#14 Page 4 Section 105.3

Item # 6 Delete the word “applicant” and “applicant’s” and insert the word “owner” and “owner’s”.

#15 Page 5 Section 105.5

Delete the existing Section and insert the words:

Permit time limits. All permits shall become void if;

1. A substantial start of construction is not made within 6 months from the date of issuance.
2. Substantial work is not performed during any 6 month period.
3. Within 2 years from date of issuance of a building permit a Certificate of Occupancy is not issued.
4. Permits for above ground or in ground swimming pools are not completed after a one-year period.
5. Permits for demolition are not completed 90 days after date of issuance.
6. Permits for fences, re-siding, re-roofing, decks, electrical up grade, sheds, detached garages, screen porches and any minor alteration to an existing building that does not exceed 400 square feet are not completed six months after issuance.

The above section modifies permit expiration dates to require completion of the projects in a time frame consistent with the type of project

#16 Page 5 Section 107.1

Delete the words “**two or more**” and insert the word “**three**”.

This change would require three sets of plans per application. One is sent to the appropriate fire department, one is returned to the applicant, and one is retained by this department.

#17 Page 5 Section 107.2.1

Delete the words: “**Electronic media documents are permitted to be submitted when approved by the building official.**” and insert “**Scale of plans shall be not less than 1/8 inch to a foot or more than 1/4 inch to a foot.**”

Exception: Sections or sketches drawn to a larger scale for clarity.”

Lake County currently requires commercial plans to be prepared and sealed by a design professional registered in the state of Illinois except in certain instances. Electronic submittals will not have an original seal or signature. Our department does not have the capability to do electronic plan reviews at this time.

#18 Page 6 Section 107.2.5

In the first sentence delete the word “**a site plan**” and insert the words “**three site plans**”.

#19 Page 6 Section 107.3.1

Delete the words “as **Reviewed for Code Compliance**” with no substitution.

Lake County currently uses a stamp that approves the drawings but has a statement regarding errors and omissions.

20 Page 8 Section 111.2

Delete the words “**that contains the following.**”
And all of the numbered items with no substitution. Insert a sentence that reads “**The Certificate of Occupancy shall be as prescribed by the Building Official.**”

The amendment above clarifies information required on a certificate of occupancy.

#21 Page 9 Section 113

Delete the entire section and replace with:

“113.1 Application for Appeal: Any person shall have the right to appeal a decision of the Building Official to the Zoning Board of Appeals. An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of this code do not fully apply, or an equivalent form of construction is to be used.

113.2 Disqualification of Member: A member shall not hear an appeal in which that member has any personal, professional or financial interest.

113.3 Compensation of Members: Compensation of members shall be determined by law.

113.4 Notice of Meeting: Any appeal must be filed with the Zoning Board of Appeals within 30 days after the date of the Building Official’s decision thereon.

113.5 Open Hearing: All hearings before the Board of Appeals shall be open to the public. The appellant, the appellant’s representative, the Building Official and any person whose interests are affected shall be given an opportunity to be heard.

113.5.1 Procedure: The Zoning Board of Appeals shall adopt and make available to the public through the Secretary, procedures under which a hearing will be conducted. The procedures shall not require compliance with strict rules of evidence but shall mandate that only relevant information be received.

113.6 Administration: The Building Official shall take immediate action in accordance with the decision of the Zoning Board of Appeals.”

Currently, appeals to the interpretation of the Building Code are heard by the Zoning Board of Appeals. We will be looking into an alternate hearing process in the near future.

#22 Page 9 Section 114.4

Delete the words “**penalties as prescribed by law**” and insert the words “**a fine of \$500.00 per offense. Each week shall constitute a separate offence.**”

This amendment clarifies fines that could be imposed for violations of the building code.

#23 Page 49 Section 310.1

Under the R-3 Group add a paragraph that reads

“All two (2) hour fire separation assemblies between R-3 residential units shall not contain any mechanical or plumbing systems, unless the mechanical or plumbing system is part of a tested assembly. Electrical systems shall be allowed in accordance with the NFPA 70 National Electrical Code 2011.”

This requirement eliminates combustible materials such as PVC plumbing, flexible ductwork, and non metallic sheathed electrical cable from required fire separation assemblies.

#24 Page 40 Section 403.1

Add a sentence to the end of the paragraph that reads

“The height of the building for fire department access shall be measured from the average grade elevation to the highest finished floor level.”

This defines exactly how fire department access height shall be determined.

#25 Page 72 Section 411.1

Change the existing exception to number “1” and add another exception to read,

“2. A temporary use permit (not to exceed 30 days) may be issued for a haunted house in an existing structure provided the following criteria is approved.

- A. A special inspection has been conducted and the report is in the office.**
- B. A plot plan showing sufficient parking for the anticipated**

- customers and all structures on the property.
- C. A floor plan showing the existing and proposed layout of partitions, windows and means of egress.
 - D. A list of all interior finishes and materials to be used for decorations and their flame spread and smoke development ratings.
 - E. Plans showing permanent, temporary and emergency lighting.
 - F. Methods of assuring continuous movement of occupants through the amusement such as but not limited to;
 - 1) Permanently stationed supervisory personnel.
 - 2) Directional arrows.
 - 3) Other means.
 - G. Method of assuring fire protection such as but not limited to;
 - 1) An automatic sprinkler system.
 - 2) Fire detection/alarm system.
 - 3) Portable fire extinguishers.”

The above requirements help ensure that temporary haunted houses are as safe as possible for the public and employees.

#26 Page 97

Section 505.2.2 Delete the words “**Section 1007**” and insert the words “**State of Illinois Accessibility Standard**”.

The Illinois Accessibility Code is mandated by state law.

#27 Page 208 Section 903.3.1.4

Add a subsection to read;

“903.3.1.4 Emergency power supply. Every automatic fire suppression system that requires or is equipped with an electric fire pump shall have an emergency generator to provide power in the case of primary power loss.

Exception. Upon submittal of documentation from the Fire Chief having jurisdiction of the area, stating that he has reviewed all pertinent information concerning the interruption of the power supply of the area and is accepting the utility provider as a reliable power supply for the fire pump.

Without reliable power, a fire pump will be of little or no use during a fire event. This requirement will allow the automatic fire sprinklers to function as long as there is water available. The generator is not required to be sized to power the entire building, only the fire pump and the well.

The exception allows for the possibility of the generator being eliminated if all parties except that there is in fact reliable power available at the site.

28 Page 243 Section 1006.1 Illumination required.

After the words exit discharge insert the words **“and toilet rooms”**

Commercial toilet rooms typically do not have windows. Occupants are generally not familiar with the spaces. In the event of a power failure at any time of day, illumination is needed to safely evacuate occupants.

#29 Page 243 Section 1007

Delete the entire section and insert a new section to read:

Section 1007
Accessible Means of Egress

1007.1 Accessible Means of Egress Required. Accessible means of egress shall comply with the Illinois Capitol Development Board, Accessibility Standards.

The Illinois Accessibility Code is mandated by state law.

#30 Page 248 Section 1008.1.5

Add new subsection to read:

“1008.1.5.1 Grade Exit Discharge Doors: Where required to swing in the direction of egress travel, all required grade exit doors shall be provided with a hard surfaced area underneath the door swing.

1008.1.5.2 Stoop surface: The exterior surface shall have a slip resistant surface that has a slope not greater than 1:50 in any direction.

1008.1.5.3 Support: Sufficient wing walls and/or foundation wall is required under all stoops. Wing walls shall have a minimum of one (1) number 4 reinforcing bar located not more than six (6) inches beneath the top edge of concrete and extending downward into the foundation wall not less than two (2) feet.

1008.1.5.4 Stoop extension: The outer perimeter of the stoop shall not project out beyond the wing wall and/or foundation wall more than twelve (12) inches in any direction.”

The above requirements eliminate the possibility that stoops can shift from freeze/thaw events and prevent an egress door from opening. This is an issue because according to the accessibility code the maximum difference between a floor inside a building and the stoop outside a building can be no greater than one half inch. During freezing weather it is not uncommon for concrete stoops to shift or move more than one half inch.

This requirement typically adds an additional cost of \$200 per exit door to the cost of a project.

#31 Page 281 Chapter 11

Delete the entire Chapter and insert a new section to read:

Chapter 11 Accessibility

1101.1 **Applicability.** The provisions of the State of Illinois Accessibility Standards shall control the design and construction of facilities for accessibility to physically disabled persons.

The Illinois Accessibility Code is mandated by state law.

#32 Page 345 Section 1608.1

Add to the end of the paragraph;

"In no case shall the design snow load be less than 30 pounds per square foot.

Snowfall in this area, especially the potential for large moisture laden snow events, is such that a thirty pound per square foot snow load is warranted.

#33 Page 407 Section 1809.5

Delete from Item #1 the words "**below the frost line of the locality**" and insert the words "**a minimum of forty-two (42) inches measured from adjacent finished grade level.**"

Based on the climate in Lake County, a foundation should extend a minimum of 42 inches below finished grade in order to have adequate protection from frost.

37 Page 405Section 1808.7.4

Change this section to require the top of a foundation to be a minimum of 6" above the finished Grade.

This height requirement helps protect structures from moisture, snow accumulation, and insect infestation.

#38 Page 547 Table 2902.

Delete the entire table and insert “**Table B**” from the State of Illinois Plumbing Code.

The state of Illinois Plumbing Code is mandated by state law.

39 Page 550 Section 2902.6 (New) Add a new section to read;

2902.6 Waste lines. All plumbing waste lines that are located in, or under concrete slabs shall be cast iron.

Exception: Waste lines that go through the foundation wall shall be ductile iron and extend on the outside of the foundation wall a minimum of five feet.



Lake County

Building Code Update Analysis

PROPOSED AMENDMENTS TO THE ICC
INTERNATIONAL RESIDENTIAL CODE 2012

Proposed Amendments to the
2012 International Residential Code (IRC)

General Amendments

ICC Electrical Code

#40 Any and all references to the ICC Electrical Code are hereby deleted and replaced with **NFPA 70, National Electrical Code 2011.**

As a part of this project, we are proposing adoption of the 2011 National Electrical Code.

#41 ICC International Energy Conservation Code

Any and all references to the ICC International Energy Conservation Code or Chapter 11 are hereby deleted and replaced with the **State of Illinois Energy Conservation Code.**

The state of Illinois energy conservation code is mandated by state law. It adopts the 2012 International Energy Conservation Code with several minor amendments.

42 ICC International Plumbing Code

Any and all references to the ICC International Plumbing Code are hereby deleted and replaced with the State of Illinois Plumbing Code, current edition.

The state of Illinois Plumbing Code is mandated by state law. We currently have several amendments to this code that make it more restrictive. The state code is in the process of being rewritten and at that time we will review the new code and present any suggested amendments to the County board.

#43 ICC International Property Maintenance Code

Any and all references to the ICC International Property Maintenance Code are hereby deleted and replaced with the **“Lake County Nuisance Ordinance.”**

Lake County currently has a nuisance ordinance that addresses property maintenance issues. The nuisance ordinance can be amended and updated as needed.

#44 ICC International Private Sewage Disposal Code

Any and all references to the ICC International Private Sewage Disposal Code are hereby deleted and replaced with the **“Lake County Board of Health Ordinance Article V”.**

Private sewage disposal systems are regulated by the Lake County Health Department.

Specific Amendments

#45 Page 1 Section R101.1

Insert the words “**Lake County Planning, Building & Development**” to replace “[NAME OF JURISDICTION]”.

#46 Page 2 Section R103

Delete the words “**DEPARTMENT OF BUILDING SAFETY**” and insert the words “**Lake County Planning, Building & Development Department**”.

#47 Page 2 Section R103.1

Delete the words “**DEPARTMENT OF BUILDING SAFETY**” and insert the words “**Lake County Planning, Building and Development Department**”.

#48 Page 3 Section R105.2

Amend item 1, delete with no substitution Items 2, 3, and 10. Add # 11 to read as follows:

11. Structures determined by the Building Official to be eligible for the registration program.

- Item #1 “~~One—story detached accessory structures used as tool and Storage sheds, Playhouses and similar uses, provided the floor area does not exceed 200 square feet~~”
- Item #2 “Fences not over 7 feet high.”
- Item #3 “Retaining walls that are not over 4 feet in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge.”
- Item #10 “Decks not exceeding 200 square feet in area, that are not more than 16 inches above grade at any point, are not attached to a dwelling, are not part of a pool barrier, and do not serve the exit door required by section R311.4.”

Item #1 One story detached accessory structures 100 square feet or less in size require a \$25 registration fee. Larger detached accessory structures will require a permit. Playhouses and similar uses that do not exceed 200 square feet will not be regulated.

Item #2 exempts fences less than six feet tall from permits. Permits or registrations should be required for all fences.

Item #3 exempts retaining walls less than 4 feet from permit unless they support a surcharge or impounding class I, II or IIIA liquids. (The class I, II or IIIA designation, defines the flammability of the liquid) Lake County currently requires permits for all retaining walls except small decorative landscape features.

Item # 10 is a proposed amendment that would allow decks to be constructed without a permit, provided that they are not attached to a house, are less than 200 square feet in area, are not

part of a means of egress, are not part of a pool barrier, and are less than 16" above grade.

Item #11 will allow the Building Official to add certain structures to the registration program.

#49 Page 5 Section 105.7

This section refers to the placement of the permit card. The current text of this section is as follows "The building permit or copy thereof shall be on the site of the work until the completion of the project." The section as amended should read as follows "The building permit card shall be kept on the site of the work in an accessible location, protected from adverse weather until the completion of the project."

This change will help keep the permit card from getting damaged as a result of the weather and keep it available to the inspector to record inspection results.

#50 Page 5 Section 106.1.3

Delete this entire section and replace with "Refer to Article 8 of the Lake County Unified Development Ordinance"

The Lake County Unified Development Ordinance addresses construction in flood hazard areas.

#51 Section 109.1.1

Change the title of this section from Foundation Inspection to **Footing Inspection**.

52 Page 8 Section R112 Board of Appeals Delete the entire section and replace with:

R112.1 Application for Appeal: Any person shall have the right to appeal a decision of the Building Official to the Zoning Board of Appeals. An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of this code do not fully apply, or an equivalent form of construction is to be used.

R112.2 Disqualification of Member: A member shall not hear an appeal in which that member has any personal, professional or financial interest.

R112.3 Compensation of Members: Compensation of members shall be determined by law.

R112.4 Notice of Meeting: Any appeal must be filed with the Zoning Board of Appeals within 30 days after the date of the Building Official's decision thereon.

R112.5 Open Hearing: All hearings before the Board of Appeals shall be open to the public. The appellant, the appellant's representative, the Building Official and any person whose interests are affected shall be given an opportunity to be heard.

R112.5.1 Procedure: The Zoning Board of Appeals shall adopt and make available to the public through the Secretary, procedures under which a hearing will be conducted. The procedures shall not require compliance with strict rules of evidence but shall mandate that only relevant information be received.

R112.6 Administration: The Building Official shall take immediate action in accordance with the decision of the Zoning Board of Appeals."

Currently, appeals to the interpretation of the Building Code are heard by the Zoning Board of Appeals. We will be looking into an alternate hearing process in the near future.

#53 Page 26 Table R301.2(1)

Complete this table as follows:

Ground Snow Load	Wind Design		Seismic Design Category ^f	Subject to Damage From			Winter Design Temp ^e	Ice Barrier Underlayment Required ^h	Flood Hazards	Air Freezing Index ⁱ	Mean Annual Temp ^j
	Speed ^d (MPH)	Topographic Effects ^k		Weathering ^a	Frost Line Depth ^b	Termite ^c					
30 PSF	90	No	A	Severe	42"	No	2	Yes	See Article 8 of the Lake County Unified Development Ordinance	2,000	50

The ICC leaves this table blank to be filled in by the authority having jurisdiction

#54 Page 48 Section R302 Delete this section with no substitution.

This section deals with fire resistant construction. Section R302.1, and Tables R 302.1 (1) and R 302.1 (2) and any references to these tables should be deleted as they would conflict with the minimum separation requirements of the UDO.

#55 Page 51 Table R302.6

All references to ½ inch gypsum board should be changed to 5/8 inch Type X gypsum board.

Delete the last line in the table.

Add the following Exception:

Exception: One and two family dwellings that are protected by an automatic residential fire sprinkler system shall be allowed to substitute ½ inch gypsum board in place of 5/8 inch Type X gypsum board.

This section addresses fire separation between a residential unit and an attached garage. Because our proposed amendment #57 would remove the provision requiring automatic fire sprinklers in new one or two family dwellings, the fire separation between a house and garage should be increased. The additional cost of 5/8 gypsum board amounts to .03 per square foot and translates into an additional cost of less than \$50 for a two car garage.

56 Page 54 Section R305.1 Change the section to read as follows:

Minimum height. Habitable space, hallways, bathrooms, toilet rooms, laundry rooms and portions of basements containing these spaces shall have a ceiling height of not less than 7'6".

57 Page 54 Section R305.1 Add an additional exception numbered 3 to read as follows:

3. Ceilings and finished basements can have a minimum height less than 7'6" provided that no permanently installed fixtures will extend below 7 feet.

This section addresses minimum ceiling heights. The minimum ceiling height required by the 2012 IRC is 7 feet. The current minimum ceiling height required under the Lake County One and Two Family Dwelling Code is 7'-6".

#58 Page 62 R313

Delete the entire section with no substitution

This section requires that automatic fire sprinklers be installed in town houses and one and two family dwellings.

Homeowners, contractors, developers, and design professionals all feel that the additional cost of adding an automatic fire sprinkler system to a new single family dwelling is not a good value and does not provide an additional level of safety that would justify the cost. Considerable discussion was held during the focus group meetings, including a thorough and detailed presentation by representatives from the Lake County Fire Inspectors Association.

#59 Section Page 63 R314.3.1 Change this section to read as follows:

Alterations, repairs and additions. When alterations, repairs or additions requiring a permit occur, and the cost of the alterations, repairs or additions exceeds 50% of the assessed value of the dwelling or when one or more sleeping rooms are added or created in existing dwellings, the individual dwelling unit shall be equipped with smoke alarms located as required for new dwellings.

*As written, the current text of this section would require that a house that currently does not have smoke detectors must have them installed if **any** alterations that require a permit are done*

on the interior of the house. The text does not address the size of the alterations. This could result in significant work throughout the entire house if a permit were issued for a minor alteration. The proposed amendment would not require installation of smoke detectors in an existing dwelling unless the value of the proposed work exceeded 50% of the assessed value of the dwelling.

#60 Page 68 Section R322 “Flood Resistant Construction”

Delete this section and replace with the following sentence:

“Refer to Article 8 of the Lake County Unified Development Ordinance.”

The Lake County Unified Development Ordinance addresses construction in flood hazard areas.

#61 Page 78 Table R403.1 Delete the current table and insert the following table:

Table R403.1 minimum width of concrete,
precast or masonry footings (inches)

Number of stories and type of construction	Thickness of footing (inches)	Projection on each side of foundation wall (inches)
One story (without basement)		
Frame	8	4
Masonry veneer on frame	8	4
Masonry	8	4
One story (with basement)		
Frame	8	4
Masonry veneer on frame	8	4
Masonry	8	4
Over one story (with or without a basement)		
Frame	8	4
Masonry veneer on frame	8	4
Masonry	12	6

The minimum footing width and thickness is based on soil conditions generally found throughout Lake County. This department typically does not ask for a soil report when issuing a permit that involves a new footing and foundation. In most cases the above footing sizes are adequate unless substandard soil is encountered.

#62 Page 109 Section R405.1 Rewrite this section as follows and delete the exception:

Concrete or masonry foundations. Drains shall be provided around all concrete or masonry foundations that retain earth and enclosed crawl spaces, habitable or usable spaces located below grade. The foundation drain shall consist of drainage tiles or perforated pipe placed on a minimum of 2 inches of washed gravel or crushed rock with a minimum aggregate size of one half inch in diameter and covered with not less than 12 inches of the same material. Foundation drains must be covered with a filter membrane with a minimum width of 18 inches. Foundation

drains must connect to a sump pit located inside the basement or crawl space of the dwelling. The drains must discharge by gravity or mechanical means into an approved drainage system.

The exception to this section would allow foundation drains to be eliminated under certain conditions. This could result in flooded basements and crawlspaces. Soil conditions in Lake County warrant a foundation drainage system. Costs incurred by homeowners who would like to eliminate the foundation drain would be approximately \$500.

#63 Page 112 Section R408.6 Rewrite this section as follows:

Finished grade. The finished grade of under floor surfaces must be located a minimum of 24 inches and a maximum of 42 inches below the bottom of the floor framing.

This amendment addresses the minimum and maximum height for crawlspaces. The minimum height allows adequate room to service all of the buildings mechanical systems located in the crawlspace and keeps a floor framing high enough above grade to eliminate any potential problems from moisture.

#64 Section 408.7 Delete this section with no substitution

Delete this section. Issues relating to flood resistance are addressed in article 8 of the Lake County Unified Development Ordinance.

#65 Page 157 Section 602.3.2 Delete the exception.

This exception allows for a single top plate to be used under certain conditions in bearing walls. This practice has caused many problems requiring expensive corrections over the years and should not be allowed.

#66 Page 439 Section 903

Add the following section: 903.5 When a dwelling is provided with a basement or has habitable rooms below grade, gutters and downspouts shall be installed, unless omission is specifically permitted by the Building Official. All exterior doors, not protected with gutters, shall be protected from roof runoff by a continuous gutter and downspouts or an approved type diverter.

In order to protect both finished and unfinished basements from flooding gutters should be required on all dwellings that have basements. The approximate cost for gutters on a house with a footprint of 1500 square feet is \$1,200 - \$1500. The section is written to allow alternate drainage systems if approved by the Building Official.



Lake County

Building Code Update Analysis

PROPOSED AMENDMENTS TO THE NFPA70
NATIONAL ELECTRICAL CODE 2011

PROPOSED AMENDMENTS TO THE
NFPA 70 NATIONAL ELECTRICAL CODE 2011

#67 Page 70-25 (New Section)

90-10 MEANS OF APPEAL

(a) Application for appeal: Any person shall have the right to appeal a decision of the Building Official to the Zoning Board of Appeals. An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of this code do not fully apply, or an equivalent form of construction is to be used.

(b) Disqualification of member: A member shall not hear an appeal in which that member has any personal, professional or financial interest.

(c) Compensation of members: Compensation of members shall be determined by law.

(d) Notice of meeting: An appeal must be filed with the Zoning Board of Appeals within 30 days after the date of the Building Official's decision thereon.

(e) Open hearing: All hearings before the Board of Appeals shall be open to the public. The appellant, the appellant's representative, the Building Official and any person whose interest are affected shall be given an opportunity to be heard.

(f) 121.6.1 Procedure: The Zoning Board of Appeals shall adopt and make available to the public through the Secretary, procedures under which a hearing will be conducted. The procedures shall not require compliance with strict rules of evidence but shall mandate that only relevant information is received.

(g) Section 121.7 Administration: The Building Official shall take immediate action in accordance with the decision of the Zoning Board of Appeals."

#70 Page 70-50 Section 210.8

Add the following sentence to the "Exception 2 (5)":

Single dedicated receptacles that supply power to sump pumps, battery backup sump pumps and ejector pumps must be protected by an alarmed GFCI receptacle.

Requiring sump pumps and ejector pumps to be on ground for protected circuits could result in the circuit being tripped without the knowledge of the homeowner and could result in a

basement flooded with storm water and/or sewage. If these receptacles are alarmed, a homeowner would be aware that the circuit tripped.

#71 Page 70-51, Section 210-11(a) Number of Branch Circuits

Add to the end of the section the following:

“The total number of openings for any branch circuit shall not exceed 9 openings for a 15 ampere circuit or 12 openings for a 20 ampere circuit.”

This amendment establishes a limit for openings on branch circuits and decreases the likelihood of a circuit overload

#72 Page 70-52, Section 210-12 Arc-Fault Circuit-Interrupter Protection (AFCI)

Insert the following exception:

Exception to 210-12(B) In circumstances where the Building Official deems that it is not practical to comply with this requirement due to existing conditions, the requirement can be waived, provided every effort is made to comply with the intent of the code.

This section, as written, requires that if any work is performed on an existing circuit that is currently not (AFCI) protected, it must be modified to provide (AFCI) protection. This could place an undue burden on homeowners in older homes that cannot easily accommodate the required change, such as older dwellings with fuse boxes.

#73 Page 70-82, Section 230-43 Wiring Methods for 600 volts Nominal, or Less

Add a new number twenty (20) to read:

“(20) For overhead service entrance cables on the outside of one and two family dwelling, only items 3, 4 or 5 above are allowed.”

This amendment requires that overhead electrical services be installed in a manner consistent with Commonwealth Edison recommendations. It would be counterproductive to allow a wiring method that the electrical supplier would probably not approve.

#74 Page 70-82, Section 230-50 Protection Against Physical Damage

Add a new number seven (7) to read:

“(7) for overhead service entrance cables on the outside of one and 2 family dwellings, only items 1,2 or 4 above are allowed.”

This amendment requires that overhead electrical services be installed in a manner consistent with Commonwealth Edison recommendations. It would be counterproductive to allow a wiring method that the electrical supplier would probably not approve.

#75 Page 70-137, Section 300-5(A) Minimum Cover Requirements.

Add a paragraph to the end of the section to read:

“Underground installation of an electrical service cannot be located in the same trench with plumbing or gas service(s) unless the minimum distance between utility services located in the same trench, shall be a minimum of twelve (12) inches measured in a horizontal dimension. Utility services located in separate trenches shall be located a minimum of twelve (12) inches apart horizontally.”

Exception: Plumbing and electrical systems that are part of a swimming pool installation may be located in the same trench in circumstances where the Building Official determines that it is not practical to comply with the separation requirement.

This amendment eliminates the danger posed by someone accidentally severing multiple utility lines at the same time which could possibly cause a fire or electrocution.

76 Page 70-186, Section 320-12 Uses Not Permitted

Add a new number (6) to read:

(6) “In any occupancy other than one and two family dwellings.

77 Page 70-196, Section 334-10 Uses Permitted

Delete Items (2), (3), and (5) with no substitution.

The above 2 amendments (75 & 76) limit the use of armored cable (BX) and nonmetallic sheathed cable (Romex). They would not be allowed where subject to damage or in commercial buildings.



Lake County

Building Code Update Analysis

PROPOSED AMENDMENTS TO THE ICC
INTERNATIONAL MECHANICAL CODE 2012

PROPOSED AMENDMENTS TO THE
ICC INTERNATIONAL MECHANICAL CODE 2012

General Amendments

78 ICC Electrical Code

Any and all references to the ICC Electrical Code are hereby deleted and replaced with NFPA 70 National Electrical Code 2011.

The 2011 National Electrical Code will replace the existing 2005 National Electrical Code.

79 ICC International Existing Building Code

Any and all references to the ICC International Existing Building Code are hereby deleted with no substitution.

#80 ICC International Energy Conservation Code

Any and all references to the ICC International Energy Conservation Code are hereby deleted and replaced with the State of Illinois Energy Conservation Code.

The state of Illinois energy conservation code is mandated by state law. It adopts the 2012 International Energy Conservation Code with several minor amendments.

#81 ICC International Plumbing Code

Any and all references to the ICC International Plumbing Code are hereby deleted and replaced with the State of Illinois Plumbing Code, current edition.

The state of Illinois Plumbing Code is mandated by state law.

#82 Code Official

Any and all references to the Code Official are hereby deleted and replaced with “**Building Official**”.

Specific Amendments

#83 Page 1 Section 101.1

Insert the words “**Lake County Planning, Building & Development**” to replace “[NAME OF JURISDICTION]”.

#84 Page 5 Section 106.5.2 Fee schedule

Delete the words “as indicated in the following schedule.” and “[JURISDICTION TO INSERT APPROPRIATE SCHEDULE]”. Insert the words “the effective fee schedule as adopted by Lake County”.

85 Page 6 Section 108.4 Violation penalties

Delete the words “[SPECIFY OFFENSE]” and insert the word “petty offense”. In the eighth (8th) line delete the word “[AMOUNT]” and insert the number “\$500.00”. In the eighth (8th) and ninth (9th) lines delete the words “or by imprisonment not exceeding [NUMBER OF DAYS], or both such fine and imprisonment.”. In the last sentence delete the word “day” and insert the word “week”.

#86 Page 7 Section 108.5 Stop work orders

In the fourteenth (14th) line delete the first reference to “[AMOUNT]” and insert the number “\$100” delete the second reference to “[AMOUNT]” and insert the number “\$500”.

#87 Page 7 Section 109 MEANS OF APPEAL Delete the entire section and replace with;

“109.1 Application for Appeal: Any person shall have the right to appeal a decision of the Building Official to the Zoning Board of Appeals. An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of this code do not fully apply, or an equivalent form of construction is to be used.

109.2 Disqualification of Member: A member shall not hear an appeal in which that member has any personal, professional or financial interest.

109.3 Compensation of Members: Compensation of members shall be determined by law.

109.4 Notice of Meeting: Any appeal must be filed with the Zoning Board of Appeals within 30 days after the date of the Building Official’s decision thereon.

109.5 Open Hearing: All hearings before the Board of Appeals shall be open to the public. The appellant, the appellant’s representative, the Building Official and any person whose interests are affected shall be given an opportunity to be heard.

109.5.1 Procedure: The Zoning Board of Appeals shall adopt and make available to the public through the Secretary, procedures under which a hearing will be conducted. The procedures shall not

require compliance with strict rules of evidence but shall mandate that only relevant information be received.

109.6 Administration: The Building Official shall take immediate action in accordance with the decision of the Zoning Board of Appeals.”

Currently, appeals to the interpretation of the Building Code are heard by the Zoning Board of Appeals. We will be looking into an alternate hearing process in the near future.

#88 Page 129 Appendix B, Recommended Permit Fee Schedule

Delete with no substitution.



Lake County

Building Code Update Analysis

PROPOSED AMENDMENTS TO THE ICC
INTERNATIONAL FUEL GAS CODE 2012

PROPOSED LAKE COUNTY AMENDMENTS TO THE
ICC INTERNATIONAL FUEL GAS CODE 2012

General Amendments

#89 ICC Electrical Code

Any and all references to the ICC Electrical Code are hereby deleted and replaced with NFPA 70 National Electrical Code 2011.

The 2011 National Electrical Code will replace the existing 2005 National Electrical Code.

#90 ICC International Existing Building Code

Any and all references to the ICC International Existing Building Code are hereby deleted with no substitution.

#91 ICC International Energy Conservation Code

Any and all references to the ICC International Energy Conservation Code are hereby deleted and replaced with the State of Illinois Energy Conservation Code.

The state of Illinois energy conservation code is mandated by state law. It adopts the 2012 International Energy Conservation Code with several minor amendments.

#92 ICC International Plumbing Code

Any and all references to the ICC International Plumbing Code are hereby deleted and replaced with the State of Illinois Plumbing Code, current edition.

The state of Illinois Plumbing Code is mandated by state law.

#93 Code Official

Any and all references to the Code Official are hereby deleted and replaced with “**Building Official**”.

Specific Amendments

#94 Page 1 Section 101.1

Insert the words “**Lake County Planning, Building and Development**” to replace “[NAME OF JURISDICTION]”.

#95 Page 5 Section 106.6.2 Fee schedule

Delete the words “as indicated in the following schedule.” and “[JURISDICTION TO INSERT APPROPRIATE SCHEDULE]”. Insert the words **“the effective fee schedule as adopted by Lake County”**.

#96 Page 7 Section 108.4 Violation penalties

Delete the words “[SPECIFY OFFENSE]” and insert the word **“petty offense”**. In the eighth (8th) line delete the word “[AMOUNT]” and insert the number **“\$500.00”**. In the ninth (9th) and tenth (10th) lines delete the words **“or by imprisonment not exceeding [NUMBER OF DAYS], or both such fine and imprisonment.”**. In the last sentence delete the word **“day”** and insert the word **“week”**.

#97 Page 7 Section 109 MEANS OF APPEAL Delete the entire section and replace with;

“109.1 Application for Appeal: Any person shall have the right to appeal a decision of the Building Official to the Zoning Board of Appeals. An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of this code do not fully apply, or an equivalent form of construction is to be used.

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109.5.1 Procedure: The Zoning Board of Appeals shall adopt and make available to the public through the Secretary, procedures

under which a hearing will be conducted. The procedures shall not require compliance with strict rules of evidence but shall mandate that only relevant information be received.

109.6 Administration: The Building Official shall take immediate action in accordance with the decision of the Zoning Board of Appeals.”

#98 Page 95 Corrugated vent connector size

Delete this entire section with no substitution.

Corrugated vent connectors are subject to damage during installation as well as after installation since they are not concealed behind walls. Since they are part of systems that ventilate products of combustion from buildings (carbon monoxide), they should not be allowed. It is actually less expensive to install solid single wall vent connectors. It is actually less expensive to install solid pipe as opposed to the flexible connectors.



Lake County

Building Code Update Analysis

PROPOSED AMENDMENTS TO THE ICC
INTERNATIONAL SWIMMING POOL and SPA
CODE 2012

PROPOSED AMENDMENTS TO THE 2012
ICC INTERNATIONAL SWIMMING POOL AND SPA CODE

General Amendments

#99 Any and all references in the ICC International Swimming Pool and Spa Code to the “**Code Official**” shall be changed to “**Building Official**”.

ICC International Plumbing Code

Any and all references to the ICC International Plumbing Code are hereby deleted and replaced with the State of Illinois Plumbing Code, current edition.

The State of Illinois mandates that all municipalities must enforce the State of Illinois Plumbing Code.

Specific Amendments

#100 Page 1

Section 101.1 Insert the words “**Lake County Planning, Building & Development Department**” to replace “[NAME OF JURISDICTION]”.

#101 Page 2

Section 103.1 Delete the words “**DEPARTMENT OF BUILDING SAFETY**” and insert the words “**Lake County Planning, Building & Development Department**”.

#102 Page 4

Section 105.5.3 Current Code Text:

Expiration. Every permit issued shall become invalid unless the work authorized by such permit is commenced within 180 days after its issuance, or if the work authorized by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. The code official is authorized to grant in writing, one or more extensions of time, for a period not more than 180 days. The extension shall be requested in writing and justifiable cause demonstrated.

Change the first sentence to read as follows:

“Every permit issued shall become invalid unless the work authorized by such permit is commenced within 180 days after its issuance, or if the work authorized by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced, or if the work authorized by such permit is not completed within one year of the date of permit issuance.”

There is currently no provision in this code that sets a time limit for completion of a project. This change corrects that oversight.

#103 Page 4

Section 105.5.4 Delete the last sentence of this section with no substitution.

Extensions: Any permittee holding an unexpired permit shall have the right to apply for an extension of the time within which the permittee will commence work under that permit when work is unable to be commenced within the time required by this section for good and satisfactory reasons. The code official shall extend the time for action by the permittee for a period not exceeding 180 days if . **The fee for an extension shall be one half the amount required for a new permit for such work.** there is reasonable cause

The last sentence of this section requires an extension fee of one half of the amount required for a new permit. If an applicant requests an extension, and has good cause, it is typically granted without additional fees under our current ordinance.

#104 Page 4

Section 105.6.2 Current Code Text:

Fee Schedule. The fees for all work shall be as indicated in the following schedule:

[JURISDICTION TO INSERT APPROPRIATE SCHEDULE]

Insert the following as needed: "**Planning, Building & Development Department Land Development Fee Schedule**".

#105 Page 4

Section 105.6.3 Delete the entire section and insert the following:

"The Building Official shall authorize the refunding of fees in accordance with the current adoption of the **Department Policy and Procedure Relating to Fee Refunds and Reductions**".

Section 105.6 .3 deals with the refunding of permit fees under certain circumstances. Lake County has a specific policy in place.

Any person who shall violate any provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter or repair an aquatic vessel in violation of the approved construction documents or directive of the code official, or of a permit or certificate issued under the provisions of this code, shall be subject to a fine of \$500 per week. Each week shall constitute a separate offense.

The ICC code text currently calls for a fine to be determined by the authority having jurisdiction and/or possible imprisonment. The \$500 per week fine is consistent with our current policy, but is often reduced by the presiding judge if the case is brought to court.

“108.1 Application for Appeal: Any person shall have the right to appeal a decision of the Building Official to the Zoning Board of Appeals. An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of this code do not fully apply, or an equivalent form of construction is to be used.

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108.5 Open Hearing: All hearings before the Board of Appeals shall be open to the public. The appellant, the appellant’s representative, the Building Official and any person whose interests are affected shall be given an opportunity to be heard.

108.5.1 Procedure: The Zoning Board of Appeals shall adopt and make available to the public through the Secretary, procedures under which a hearing will be conducted. The procedures shall not require compliance with strict rules of evidence but shall mandate that only relevant information be received.

108.6 Administration: The Building Official shall take immediate action in accordance with the decision of the Zoning Board of Appeals.”

*As part of a future project we will be researching the possibility of establishing a **Building Code** board of appeals.*

#108 Page 13

Section 304 1) Change section 304.1 to read as follows:

General. Article 8 of the Lake County Unified Development Ordinance shall control the design and construction of aquatic vessels installed in flood hazard areas.

2) Delete sections 304.2 through 304.5.

All development in flood hazard areas is addressed by Article 8 of the Lake County Unified Development Ordinance.

#109 Page 14

Section 305.4Current Code Text:

Structure wall as a barrier. Where a wall of a dwelling or structure serves as part of the barrier, doors and operable Windows with a sill height of less than 40 inches (1219 mm) that provide direct access to the aquatic vessel through the wall shall be equipped with one or more of the following:

1. An alarm that produces an audible warning when the door or its screen or window, is opened. The alarm shall be listed and labeled as a water hazard entrance alarm in accordance with UL 2017. In dwellings or structures not required to be Accessible units, Type A units or Type B units, the deactivation switch shall be located 54 inches (1372 mm) or more above the threshold of the door. In dwellings or structures required to be Accessible units, Type A units or Type B units, the deactivation switch shall be located not greater than 54 inches (1372 mm) and not less than 48 inches (1219 mm) above the threshold of the door.

2. A safety cover that it's listed and labeled in accordance with ASTM F1346.
3. An approved means of protection, such as self-closing doors with self latching devices, provided that the degree of protection afforded is not less than the protection afforded by items 1 or 2.

Change the first paragraph to read as follows:

Where a wall of a dwelling or structure serves as part of the barrier, doors that provide direct access to the aquatic vessel through the wall shall be equipped with one or more of the following:

We recommend removing the provision that windows be protected. It is assumed that most operable windows have screens that would act as a deterrent to unauthorized entrance to the pool area.



Lake County

Building Code Update Analysis

PROPOSED AMENDMENTS TO THE ICC
INTERNATIONAL FIRE CODE 2012

PROPOSED AMENDMENTS TO THE 2012
ICC INTERNATIONAL FIRE CODE

General Amendments

#110 Any and all references to the *fire code official* shall be changed to **“Building Official”**

#111 Any and all references to the International Property Maintenance code shall be changed to the Lake County Nuisance Ordinance.

#112 Page 1 Section 101.1 Title Insert **“Lake County Planning, Building & Development”** in place of [Name of Jurisdiction]

#113 Page 2 Section 103 Delete section 103 with no substitution.

This section establishes a “Department of Fire Prevention”. Enforcement of this code will be by the Lake County Planning, Building, & Development Department.

Page 4 Section 105.1.1 **Types of permits.**

Delete #1 and change #2 to #1

Item number 1 addresses operational permits. This Department does not issue operational permits.

114 Page 12 Section 108 Board of Appeals Delete the entire section and insert the following:

“108.1 Application for Appeal: Any person shall have the right to appeal a decision of the Building Official to the Zoning Board of Appeals. An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of this code do not fully apply, or an equivalent form of construction is to be used.

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108.5.1 Procedure: The Zoning Board of Appeals shall adopt and make available to the public through the Secretary, procedures under which a hearing will be conducted. The procedures shall not require compliance with strict rules of evidence but shall mandate that only relevant information be received.

108.6 Administration: The Building Official shall take immediate action in accordance with the decision of the Zoning Board of Appeals.”

#115 Page 14 Section 113 Delete this section with no substitution.

All fees will be collected as part of the permit process in place under the International Building Code and the International Residential Code and in accordance with the Lake County Planning, Building, & Development Department Plan Development Fee Schedule.

#116 Page 46 Section 307 Delete this section and replace with:

Section 307

Open burning shall be in accordance with the “Lake County Nuisance Ordinance”.

#117 Page 97 Chapter 9 Delete this chapter and replace with:

**Chapter 9
Fire Protection Systems
Fire protection systems shall be regulated in
accordance with Chapter 9 of the 2012 International
Building Code**

#118 Page 139 Chapter 10 Delete this chapter and replace with:

**Chapter 10
Means of Egress
Means of egress shall be regulated in
accordance with Chapter 10 of the 2012 International
Building Code**

Chapter 9 and Chapter 10 are both addressed in the International Building Code.