

# **ENGINEERING DIVISION**

# M E M O R A N D U M

# TO:Mayor Laurel L. Prussing and Members of the City CouncilFROM:William R. Gray, Public Works DirectorGale L. Jamison, Assistant City EngineerBradley M. Bennett, Senior Civil Engineer

DATE: September 5, 2013

# **RE:** Flood Damage Prevention Ordinance

## **Action Requested**

The Engineering Division recommends adoption of the attached amendments to the Flood Damage Prevention Ordinance to comply with the Federal Emergency Management Agency's (FEMA) National Flood Insurance Program (NFIP) requirements.

## **Background and Facts**

The amendments to the ordinance are necessary following the issuance of revised Preliminary Flood Insurance Study and Flood Insurance Rate Maps for the City of Urbana. These documents and maps are issued by FEMA and the Illinois Department of Natural Resources Office of Water Resources (IDNR OWR).

The City received its final revised maps and study on April 2, 2013. This started a six-month compliance period during which the City must adopt the new maps and update its Flood Damage Prevention Ordinance to participate in the NFIP.

The last flood hazard boundary maps for the City of Urbana were adopted and became effective back in 1981. The Flood Damage Prevention Ordinance was last revised in 2011 when the Fire and Building Safety Codes were updated.

FEMA's Map Modernization Program is a national effort to update flood risk maps and convert them to a digital format. This digital format allows for easier distribution and more frequent updates to the maps by the floodplain administrators when there are changes in the floodplain due to capital projects or development. Features of the Map Modernization Program included:

- Acquisition of high-resolution topographic data used to develop more accurate flood hazard data and floodplain mapping.
- Use of the updated flood hazard data and floodplain mapping to produce seamless DFIRM coverage statewide.
- Production of Digital Flood Insurance Rate Maps on a countywide basis so that the county and its incorporated municipalities are shown on the same set of maps.
- Production of digital orthophotos that were used as base mapping.
- Conversion of Flood Insurance Rate Maps to the North American Vertical Datum of 1988 (NAVD 88).
- Implementation of a state-of-the-art, dynamic information technology infrastructure, allowing citizens to view the maps and study data via the Internet.

The new flood hazard maps for the City of Urbana and Champaign County are available on-line at <a href="http://urbanaillinois.us/posts/2013/08/fema-releases-new-flood-hazard-maps-urbana">http://urbanaillinois.us/posts/2013/08/fema-releases-new-flood-hazard-maps-urbana</a>.

## **Recommendation**

The City must update its Flood Damage Prevention Ordinance and adopt the revised study and maps in order to maintain its participation in the NFIP. Without this participation by the City, property owners would not be able to purchase flood insurance; and consequently, lending institutions could not extend financing for properties located within Special Flood Hazard Areas i.e. floodplains). It is recommended that the attached amendments to the Flood Damage Prevention Ordinance be adopted. The amended ordinance will adopt the revised study and flood hazard maps and meet all the NFIP requirements.

Attachments: Letter from FEMA on New Flood Hazard Maps An Ordinance Amending Urbana City Code Chapter Five, Article XI (Flood Hazard Areas) Red-Lined Version of Ordinance Amending Urbana City Code Chapter Five, Article XI (Flood Hazard Areas)

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Federal Emergency Management Agency

Washington, D.C. 20472

CERTIFIED MAIL RETURN RECEIPT REQUESTED IN REPLY REFER TO: 19P

April 2, 2013

The Honorable Laurel Lunt-Prussing Mayor, City of Urbana 400 South Vine Street Post Office Box 219 Urbana, Illinois 61801 Community:

Community No.: Map Panels Affected: City of Urbana, Champaign County, Illinois 170035 See FIRM Index

Dear Mayor Lunt-Prussing:

This is to formally notify you of the final flood hazard determination (FHD) for the City of Urbana, Champaign County, Illinois, in compliance with Title 44, Chapter I, Part 67, Section 67.11, Code of Federal Regulations (CFR). This section requires that notice of final flood hazards shall be sent to the Chief Executive Officer of the community, all individual appellants, and the State Coordinating Agency, and shall be published in the *Federal Register*.

On January 16, 1981, the Department of Homeland Security's Federal Emergency Management Agency (FEMA) issued a Flood Insurance Rate Map (FIRM) that identified the Special Flood Hazard Areas (SFHAs), the areas subject to inundation by the base (1-percent-annual-chance) flood, in your community. Recently, FEMA completed a re-evaluation of flood hazards in your community. On June 27, 2012, FEMA provided you with Preliminary copies of the FIRM and Flood Insurance Study (FIS) report that identify existing flood hazards in your community, including Base Flood Elevations (BFEs). The proposed FHDs for your community were published in *The News-Gazette, The County-Star, Mahomet Citizen* and *The Leader* on October 18, 2012 and October 25, 2012, and in the *Federal Register*, at Part 67, Volume 77, No. 184, Pages 58562 - 58564, on September 21, 2012.

The statutory 90-day appeal period, which was initiated on the second newspaper publication date cited above, has ended. FEMA did not receive any appeals of the proposed FHDs during that time. Accordingly, the FHDs for your community are considered final. The final notice for FHDs will be published in the *Federal Register* as soon as possible. The FIRM for your community will become effective on October 2, 2013. Before the effective date, FEMA will send you final printed copies of the FIRM and FIS report.

Because the FIS report establishing the FHDs for your community has been completed, certain additional requirements must be met under Section 1361 of the National Flood Insurance Act of 1968, as amended, within 6 months from the date of this letter. Prior to October 2, 2013, your community is required, as a condition of continued eligibility in the National Flood Insurance Program (NFIP), to adopt or show evidence of adoption of floodplain management regulations that meet the standards of Paragraph 60.3(d) of the enclosed NFIP regulations (44 CFR 59, etc.) by the effective date of the FIRM. These standards are the minimum requirements and do not supersede any State or local requirements of a more stringent nature.

It must be emphasized that all the standards specified in Paragraph 60.3(d) of the NFIP regulations must be enacted in a legally enforceable document. This includes adoption of the current effective FIRM and FIS report to which the regulations apply and other modifications made by this map revision. Some of the standards should already have been enacted by your community in order to establish initial eligibility in the NFIP. Your community can meet any additional requirements by taking one of the following actions:

- 1. Amending existing regulations to incorporate any additional requirements of Paragraph 60.3(d);
- 2. Adopting all the standards of Paragraph 60.3(d) into one new, comprehensive set of regulations; or
- 3. Showing evidence that regulations have previously been adopted that meet or exceed the minimum requirements of Paragraph 60.3(d).

Communities that fail to enact the necessary floodplain management regulations will be suspended from participation in the NFIP and subject to the prohibitions contained in Section 202(a) of the Flood Disaster Protection Act of 1973 (Public Law 93-234) as amended.

In addition to your community using the FIRM and FIS report to manage development in the floodplain, FEMA will use the FIRM and FIS report to establish appropriate flood insurance rates. On the effective date of the revised FIRM, actuarial rates for flood insurance will be charged for all new structures and substantial improvements to existing structures located in the identified SFHAs. These rates may be higher if structures are not built in compliance with the floodplain management standards of the NFIP. The actuarial flood insurance rates increase as the lowest elevations (including basement) of new structures decrease in relation to the BFEs established for your community. This is an important consideration for new construction because building at a higher elevation can greatly reduce the cost of flood insurance.

To assist your community in maintaining the FIRM, we have enclosed a Summary of Map Actions to document previous Letter of Map Change (LOMC) actions (i.e., Letters of Map Amendment (LOMAs), Letters of Map Revision (LOMRs)) that will be superseded when the revised FIRM panels referenced above become effective. Information on LOMCs is presented in the following four categories: (1) LOMCs for which results have been included on the revised FIRM panels; (2) LOMCs for which results could not be shown on the revised FIRM panels because of scale limitations or because the LOMC issued had determined that the lots or structures involved were outside the SFHA as shown on the FIRM; (3) LOMCs for which results have not been included on the revised FIRM panels because the flood hazard information on which the original determinations were based are being superseded by new flood hazard information; and (4) LOMCs issued for multiple lots or structures where the determination for one or more of the lots or structures cannot be revalidated through an administrative process like the LOMCs in Category 2 above. LOMCs in Category 2 will be revalidated through a single letter that reaffirms the validity of a previously issued LOMC; the letter will be sent to your community shortly before the effective date of the revised FIRM and will become effective 1 day after the revised FIRM becomes effective. For the LOMCs listed in Category 4, we will review the data previously submitted for the LOMA or LOMR request and issue a new determination for the affected properties after the revised FIRM becomes effective.

The FIRM and FIS report for your community have been prepared in our countywide format, which means that flood hazard information for all jurisdictions within Champaign County has been combined into one FIRM and FIS report. When the FIRM and FIS report are printed and distributed, your community will receive only those panels that present flood hazard information for your community. We will provide complete sets of the FIRM panels to county officials, where they will be available for review by your community.

The FIRM panels have been computer-generated. Once the FIRM and FIS report are printed and distributed, the digital files containing the flood hazard data for the entire county can be provided to your community for use in a computer mapping system. These files can be used in conjunction with other thematic data for floodplain management purposes, insurance purchase and rating requirements, and many other planning applications. Copies of the digital files or paper copies of the FIRM panels may be obtained by calling our FEMA Map Information eXchange (FMIX), toll free, at 1-877-FEMA-MAP (1-877-336-2627). In addition, your community may be eligible for additional credits under our Community Rating System if you implement your activities using digital mapping files.

If your community is encountering difficulties in enacting the necessary floodplain management measures required to continue participation in the NFIP, we urge you to call the Director, Federal Insurance and Mitigation Division of FEMA in Chicago, Illinois, at (312) 408-5500, for assistance. If you have any questions concerning mapping issues in general or the enclosed Summary of Map Actions, please call FMIX at the telephone number shown above. Additional information and resources your community may find helpful regarding the NFIP and floodplain management, such as *The National Flood Insurance Program Code of Federal Regulations, Answers to Questions About the NFIP, Frequently Asked Questions Regarding the Effect that Revised Flood Hazards have on Existing Structures. Use of Flood Insurance Study (FIS) Data as Available Data, and National Flood Insurance Program Elevation Certificate and Instructions, can be found on our website at http://www.floodmaps.fema.gov/lfd. Paper copies of these documents may also be obtained by calling FMIX.* 

Sincerely,

Luis Rodriguez, P.E., Chief Engineering Management Branch Federal Insurance and Mitigation Administration

Enclosure: Final Summary of Map Actions

cc: Community Map Repository Gale Jamison, Assistant City Engineer, City of Urbana

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#### FINAL SUMMARY OF MAP ACTIONS

Community: URBANA, CITY OF

Community No: 170035

To assist your community in maintaining the Flood Insurance Rate Map (FIRM), we have summarized below the previously issued Letter of Map Change (LOMC) actions (i.e., Letters of Map Revision (LOMRs) and Letters of Map Amendment (LOMAs)) that will be affected when the revised FIRM becomes effective on October 2, 2013.

#### 1. LOMCs Incorporated

The modifications effected by the LOMCs listed below will be reflected on the revised FIRM. In addition, these LOMCs will remain in effect until the revised FIRM becomes effective.

LOMC	Case No.	Date Issued	Project Identifier	Oid Panel	New Panel
			NO CASES RECORDED		

#### 2. LOMCs Not incorporated

The modifications effected by the LOMCs listed below will not be reflected on the revised FIRM panels because of scale limitations or because the LOMC issued had determined that the lot(s) or structure(s) involved were outside the Special Flood Hazard Area, as shown on the FIRM. These LOMCs will remain in effect until the revised FIRM becomes effective. These LOMCs will be revalidated free of charge 1 day after the revised FIRM becomes effective through a single revalidation letter that reaffirms the validity of the previous LOMCs.

LOMC	Case No.	Date Issued	Project Identifier	Oid Panel	New Panel
LOMR-F	199101116FIA	07/24/1986		0009B	17019C0427D
LOMR-F	199101134FIA	09/04/1986		0009B	17019C0427D
LOMA	87-05-0777W	06/05/1987	SEC 5, TWP 19N, R9E OF 3RD PRINC. MERIDIAN	1700350009B	17019C0313D 17019C0314D
LOMA	87-05-0776W	06/02/1987	LOT 2 - N.C. RICKER'S SUBDIVISION - 609 WEST ELM STREET	1700350005B	17019C0427D
LOMA	02-05-0110A	11/07/2001	LOT 2, CRYSTAL LAKE PARK ADDITION-212 CRYSTAL LAKE DRIVE	1700350009B	17019C0427D
LOMA	07-05-3201A	04/05/2007	PORTION OF LOTS 2-6, WORTHY'S ADDITION 300 WEST MAIN STREET (IL)	1700350009B	17019C0427D
LOMA	07-0 <b>5-422</b> 5A	06/28/2007	EAST UNIVERSITY SUBDIV, LOT 2 601 EAST UNIVERSITY AVENUE (IL)	1700350009B	17019C0427D
LOMA	11-05-8723A	09/20/2011	TIMBER HILLS SUBDIVISION, LOT 9 1917 HAGAN BOULEVARD	1700350009B	17019C0314D

#### FINAL SUMMARY OF MAP ACTIONS

Community: URBANA, CITY OF

Community No: 170035

LOMC	Case No.	Date Issued	Project Identifier	Old Panel	New Pan <del>e</del> l
LOMA	13-05-2624A	01/24/2013	A PORTION OF LOT 2, SUTTONS SUBDIVISION 503-505 SPRINGFIELD AVENUE	1700350009B	17019C0427
LOMA	13-05-3153A	02/12/2013	LOT 2 AND A PORTION OF LOT 1, HANNAH C. GILL'S SUBDIVISION - 806 WEST GREEN STREET	1700350010B	17019C0427
LOMA	11-05-6890A	06/29/2011	105 South Lincoln	1700350009B	17019C0426
LOMA	12-05-1991A	01/04/2012	101 South Lincoln Avenue	1700350009B	17019C0426

#### 3. LOMCs Superseded

The modifications effected by the LOMCs listed below have not been reflected on the Final revised FIRM panels because they are being superseded by new detailed flood hazard information or the information available was not sufficient to make a determination. The reason each is being superseded is noted below. These LOMCs will no longer be in effect when the revised FIRM becomes effective.

LOMC	Case No.	Date Issued	Project Identifier	Reason Determination Will be Superseded	
LOMA	99-05-1582A	03/24/1999	C.R. GRIGGS ADDITION - LOT 4 - 509 WEST MAIN STREET	4	
LOMA	04-05-2091A	02/20/2004	C.R. GRIGGS ADDITION, LOT 3: 507 WEST MAIN STREET	4	

1. Insufficient information available to make a determination.

2. Lowest Adjacent Grade and Lowest Finished Floor are below the proposed Base Flood Elevation.

3. Lowest Ground Elevation is below the proposed Base Flood Elevation.

4. Revised hydrologic and hydraulic analyses.

5. Revised topographic information.

#### 4. LOMCs To Be Redetermined

The LOMCs in Category 2 above will be revalidated through a single revalidation letter that reaffirms the validity of the determination in the previously issued LOMC. For LOMCs issued for multiple lots or structures where the determination for one or more of the lots or structures has changed, the LOMC cannot be revalidated through this administrative process. Therefore, we will review the data previously submitted for the LOMC requests listed below and issue a new determination for the affected properties after the effective date of the revised FIRM.

LOMC	Case No.	Date Issued	Project Identifier	Old Panel	New Panel
			NO CASES RECORDED		

#### ORDINANCE NO. 2013-09-079

#### AN ORDINANCE AMENDING URBANA CITY CODE CHAPTER FIVE, ARTICLE XI

#### (Flood Hazard Areas)

WHEREAS, the City of Urbana ("City") is a home rule unit of local government pursuant to Article VII, Section 6, of the Illinois Constitution, 1970, and may exercise any power and perform any function pertaining to its government and affairs, including the power to regulate for the protection of the public health, safety, and welfare; and

WHEREAS, the City Council heretofore did on the 28th day of July 2011, pursuant to Ordinance No. 2011-07-062, enact Urbana City Code Chapter 5, Article XI, to establish a flood safety code for the protection of the public health, safety, and welfare; and

WHEREAS, changes in federal flood plain management criteria require the City to amend the said Article XI to maintain the City's standing as a participating community in the National Flood Insurance Program; and

WHEREAS, the Urbana Building Safety Code Board of Appeals reviewed the proposed amendment to Article XI at a meeting held on September 5, 2013, and thereafter voted to recommended that the City Council adopt said amendment; and

WHEREAS, the City Council finds that amending Article XI, as provided herein, will protect the health, safety, and welfare of the public.

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of Urbana, Champaign County, Illinois, as follows:

#### Section 1.

Urbana City Code Chapter 5, "Building, Fire and Flood Safety Codes," Article XI, "Flood Hazard Areas," is hereby amended and as amended shall read as set forth in Exhibit "A," which is attached hereto and incorporated herein by reference.

#### Section 2.

Those sections, paragraphs, and provisions of the Urbana City Code that are not expressly amended or repealed by this Ordinance are hereby re-enacted, and it is expressly declared to be the intention of this Ordinance not to repeal or amend any portions of the Urbana City Code other than those expressly set forth as amended or repealed in this Ordinance. The invalidity of any section or provision of this Ordinance hereby passed and approved shall not invalidate other sections or provisions thereof.

#### Section 3.

This Ordinance shall not be construed to affect any suit or proceeding pending in any court, or any rights acquired, or a liability incurred, or any cause or causes of action acquired or existing prior to the effective date of this Ordinance; nor shall any right or remedy of any character be lost, impaired, or affected by this Ordinance.

#### Section 4.

The City Clerk is directed to publish this Ordinance in pamphlet form by authority of the corporate authorities, and this Ordinance shall be in full force and effect from and after its passage.

This Ordinance is hereby passed by the affirmative vote, the "ayes" and "nays" being called, of a majority of the members of the Council of the City of Urbana, Illinois, at a meeting of said Council.

PASSED BY THE CITY COUNCIL this \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_.

AYES:

NAYS:

ABSENT:

ABSTAINED:

Phyllis D. Clark, City Clerk

APPROVED BY THE MAYOR this \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_.

Laurel Lunt Prussing, Mayor

## Exhibit A

Urbana City Code Chapter 5 Building, Fire and Flood Safety Codes Article XI Flood Hazard Areas

## Sec. 5-201. Authority; purposes.

This article is enacted pursuant to the police powers granted to this City by the Illinois Municipal Code (65 ILCS 5/1-2-1, 5/11-12-12, 5/11-30-2, 5/11-30-8 and 5/11-31-2) for the following purposes:

- A. To prevent unwise developments from increasing flood or drainage hazards to others;
- B. To protect new buildings and major improvements to buildings from flood damage;
- C. To promote and protect the public health, safety, and general welfare of the citizens from the hazards of flooding;
- D. Too lessen the burden on the taxpayer for flood control, repairs to public facilities and utilities, and flood rescue and relief operations;
- E. To maintain property values and a stable tax base by minimizing the potential for creating blight areas;
- F. To make federally subsidized flood insurance available; and
- G. To preserve the natural characteristics and functions of watercourses and floodplains in order to moderate flood and stormwater impacts, improve water quality, reduce soil erosion, protect aquatic and riparian habitat, provide recreational opportunities, provide aesthetic benefits, and enhance community and economic development.

### Sec. 5-202. Definitions.

For the purposes of this article, the following definitions are adopted:

**Base Flood** means the flood having a one percent (1%) probability of being equaled or exceeded in any given year. The base flood is also known as the 100-year flood. The base flood elevation at any location is as defined in section 5-203 of this article.

**Base Flood Elevation (BFE)** means the elevation in relation to mean sea level of the crest of the base flood.

**Basement** means that portion of a building having its floor sub-grade (below ground level) on all sides.

**Building** means a walled and roofed structure, including gas or liquid storage tank that is principally above ground including manufactured homes, prefabricated buildings and gas or liquid storage tanks. The term also includes recreational vehicles and travel trailers installed on a site for more than 180 days.

*City Engineer* or *Building Official* means the City Engineer or Building Official of the City as it pertains; whichever official by training, experience, or ordinance is best assigned to review and approve a particular type of development or a particular development issue which may arise in the administration of this flood damage prevention article.

*Critical Facility* means any facility which is critical to the health and welfare of the population and, if flooded, would create an added dimension to the disaster. Damage to

these critical facilities can impact the delivery of vital services, can cause greater damage to other sectors of the community, or can put special populations at risk. Examples of critical facilities where flood protection should be required include: emergency services facilities (such as fire and police stations), schools, hospitals retirement homes and senior care facilities, major roads and bridges, critical utility sites (telephone switching stations or electrical transformers, and hazardous material storage facilities (chemicals, petrochemicals, hazardous or toxic substances).

**Development** means any human-made change to real estate including, but not necessarily limited to:

- 1. Demolition, construction, reconstruction, repair, placement of a building, or any structural alteration to a building;
- 2. Substantial improvement of an existing building;
- Installation of a manufactured home on a site, preparing a site for a manufactured home, or installing a travel trailer on a site for more than 180 days;
- 4. Installation of utilities, construction of roads, bridges, culverts or similar projects;
- 5. Construction or erection of levees, dams walls or fences;
- 6. Drilling, mining, filling, dredging, grading, excavating, paving, or other alterations of the ground surface;
- 7. Storage of materials including the placement of gas and liquid storage tanks, and channel modifications or any other activity that might change the direction, height, or velocity of flood or surface waters.

"Development" does not include routine maintenance of existing buildings and facilities, resurfacing roads, or gardening, plowing, and similar practices that do not involve filing, grading, or construction of levees.

**Existing Manufactured Home Park** or **Subdivision** means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed or buildings to be constructed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the floodplain management regulations adopted by a community.

*Expansion to an Existing Manufactured Home Park* or *Subdivision* means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

FEMA means Federal Emergency Management Agency.

**Flood** means a general and temporary condition of partial or complete inundation of normally dry land areas from the overflow, the unusual and rapid accumulation, or the runoff of surface waters from any source.

Flood Fringe means that portion of the floodplain outside of the regulatory floodway.

*Flood Insurance Rate Map (FIRM)* means a map prepared by FEMA that depicts the floodplain or special flood hazard area (SFHA) within a community. This map includes insurance rate zones and may or may not depict floodways and show base flood elevations.

*Flood Insurance Study* means an examination, evaluation, and determination of flood hazards and, if appropriate, corresponding water surface elevations.

*Floodplain* and *Special Flood Hazard Area (SFHA)* are synonymous. Those lands within the jurisdiction of the City the extraterritorial jurisdiction of the City or that may be annexed into the City, that are subject to inundation by the base flood. The floodplains of the City are generally identified as such on panel numbers 313, 314, 318, 325, 426, 427, 429, 431, and 450 of the countywide Flood Insurance Rate Map of Champaign County prepared by FEMA and effective October 2, 2013, as amended. Floodplain also includes those areas of known flooding as identified by the community.

The floodplains of those parts of unincorporated Champaign County that are within the extraterritorial jurisdiction of the City or that may be annexed into the City are generally identified as such on the Flood Insurance Rate map prepared for Champaign County by FEMA and effective October 2, 2013, as amended.

*Floodproofing* means any combination of structural or nonstructural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate, property and their contents.

*Floodproofing Certificate* means a form published by FEMA that is used to certify that a building has been designed and constructed to be structurally dry flood proofed to the flood protection elevation.

*Flood Protection Elevation (FPE)* means the elevation of the base flood plus one foot of freeboard at any given location in the floodplain.

**Floodway** means that portion of the floodplain required to store and convey the base flood. The floodway for the floodplains of Boneyard Creek, McCullough Creek, and Saline Branch shall be as delineated on the countywide Flood Insurance Rate Map of Champaign County prepared by FEMA and effective October 2, 2013, as amended. The floodways for each of the remaining floodplains of the City shall be according to the best data available from Federal, State, or other sources.

*Freeboard* means an increment of elevation added to the base flood elevation to provide a factor of safety for uncertainties in calculations, future watershed development, unknown localized conditions, wave actions, and unpredictable effects such as those caused by ice or debris jams.

Historic Structure means any structure that is:

- 1. Listed individually in the National Register of Historic Places or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
- 2. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
- 3. Individually listed on the state inventory of historic places by the Illinois Historic Preservation Agency;
- 4. Individually listed on a local inventory of historic places that has been certified by the Illinois Historic Preservation Agency.

IDNR/OWR means Illinois Department of Natural Resources/Office of Water Resources.

**IDNR /OWR Jurisdictional Stream** means Illinois Department of Natural Resource Office of Water Resources has jurisdiction over any stream serving a tributary area of 640 acres or more in an urban area, or in the floodway of any stream serving a tributary area of 6,400 acres or more in a rural area. Construction on these streams requires a permit from the Department. (III Admin. Code tit. 17, pt. 3700.30). The Department may grant approval for specific types of activities by issuance of a statewide permit which meets the standards defined in section 5-206 of this article.

**Lowest Floor** means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor. Provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of section 5-207 of this article.

*Manufactured Home* means a structure transportable in one or more sections that is built on a permanent chassis and is designed to be used with or without a permanent foundation when connected to required utilities.

*Manufactured Home Park* or *Subdivision* means a parcel (or contiguous parcels) of land divided into two or more lots for rent or sale.

*New Construction* means structures for which the start of construction commenced or after the effective date of floodplain management regulations adopted by a community and includes any subsequent improvements of such structures.

*New Manufactured Home Park* or *Subdivision*- A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed or buildings to be constructed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of the floodplain management regulations adopted by a community.

**NFIP** means National Flood Insurance Program.

Recreational Vehicle or Travel Trailer means a vehicle which is:

- 1. Built on a single chassis;
- 2. Four hundred (400) square feet or less in size;
- 3. Designed to be self-propelled or permanently towable by a light duty truck and designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel or seasonal use.

**Repetitive Loss** means flood related damages sustained by a structure on two separate occasions during a ten year period for which the cost of repairs at the time of each such flood event on the average equals or exceeds 25% of the market value of the structure before the damage occurred.

Special Flood Hazard Area (SFHA) is synonymous with "floodplain."

*Start of Construction* includes substantial improvement and means the date the building permit was issued. This, provided the actual start of construction, repair, reconstruction,

rehabilitation, addition placement or other improvement, was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns or any work beyond the stage of excavation or placement of a manufactured home on a foundation. For a substantial improvement, actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building whether or not that alteration affects the external dimensions of the building.

Structure is synonymous with "Building."

**Substantial Damage** means damage of any origin sustained by a structure whereby the cumulative percentage of damage during the life of the building equals or exceeds fifty percent (50%) of the market value of the structure before the damage occurred regardless of actual repair work performed. Volunteer labor and materials must be included in this determination. The term includes "Repetitive Loss" buildings."

**Substantial Improvement** means any reconstruction, rehabilitation, addition, or improvement of a structure taking place during the life of the building in which the cumulative percentage of improvements equals or exceeds fifty percent (50%) of the market value of the structure before the improvement or repair is started, or increases the floor area by more than twenty percent (20%).

"Substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure. This term includes structures which have incurred repetitive loss or substantial damage, regardless of the actual repair work done.

The term does not include:

- 1. Any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions; or
- 2. Any alteration of a structure listed on the National Register of Historic Places or the Illinois Register of Historic Places.

*Violation* means the failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without the required federal, state, and/or local permits and elevation certification is presumed to be in violation until such time as the documentation is provided.

# Sec. 5-203. Base Flood Elevation.

This article's protection standard is the base flood. The best available base flood data are listed below. Whenever a party disagrees with the best available data, the party shall finance the detailed engineering study needed to replace the existing data with better data and submit it to the FEMA and IDNR/OWR for approval prior to any development of the site.

A. The base flood elevation for the floodplains of Boneyard Creek, McCullough Creek, and Saline Branch shall be as delineated on the 100-year flood profiles in the countywide Flood Insurance Study of Champaign County prepared by FEMA and effective October 2, 2013, as amended.

- B. The base flood elevation for each floodplain delineated as an "AH Zone" or AO Zone" shall be that elevation (or depth) delineated on the countywide Flood Insurance Rate Map of Champaign County.
- C. The base flood elevation for each of the remaining floodplains delineated as an "A Zone" on the countywide Flood Insurance Rate Map of Champaign County shall be according to the best data available from federal, state, or other sources. Should no other data exist, an engineering study must be financed by the applicant to determine base flood elevations.
- D. The base flood elevation for the floodplains of those parts of unincorporated Champaign County that are within the extraterritorial jurisdiction of the City, or that may be annexed into the City, shall be as delineated on the 100-year flood profiles in the Flood Insurance Study of Champaign County prepared by FEMA and effective October 2, 2013, as amended.

# Sec. 5-204. Duties of City Engineer.

The City Engineer shall be responsible for the general administration of this article and shall ensure that all development activities within the floodplains under the jurisdiction of the City meet the requirements of this article. Specifically, the City Engineer shall:

- A. Process development permits in accordance with section 5-205;
- B. Ensure that all development in a floodway (or a floodplain with no delineated floodway) meets the damage prevention requirements of section 5-206;
- C. Ensure that the building protection requirements for all buildings subject to section 5-207 are met and maintain a record of the "as-built" elevation of the lowest floor (including basement) or floodproof certificate;
- D. Assure that all subdivisions and annexations meet the requirements of section 5-208;
- E. Ensure that water supply and waste disposal systems meet the Public Health standards of section 5-209;
- F. If a variance is requested, ensure that the requirements of section 5-211 are met and maintain documentation of any variances granted;
- G. Inspect all development projects and take any and all penalty actions outlined in section 5-213 as a necessary to ensure compliance with this article;
- H. Assure that applicants are aware of and obtain any and all other required local, state, and federal permits;
- I. Notify IDNR/OWR and any neighboring communities prior to any alteration or relocation of a watercourse;
- J. Provide information and assistance to citizens upon request about permit procedures and floodplain construction techniques;
- K. Cooperate with state and federal floodplain management agencies to coordinate base flood data and to improve the administration of this article;
- L. Maintain for public inspection base flood data, floodplain maps, copies of state and federal permits, and documentation of compliance for development activities subject to this article;
- M. Perform site inspections to ensure compliance with this article and make substantial damage determinations for structures within the floodplain; and
- N. Maintain the accuracy of floodplain maps including notifying IDNR/OWR and/or submitting information to FEMA within six months whenever a modification of the floodplain may change the base flood elevation or result in a change to the floodplain map.

## Sec. 5-205. Development Permit.

No person, firm, corporation, or governmental body not exempted by law shall commence any development in the floodplain without first obtaining a development permit from the City Engineer The City Engineer shall not issue a development permit if the proposed development does not meet the requirements of this article.

- A. The application for development permit shall be accompanied by:
  - 1. Drawings of the site, drawn to scale showing property line dimensions;
  - 2. Existing grade elevations and all changes in grade resulting from excavation or filling;
  - 3. The location and dimensions of all buildings and additions to buildings;
  - 4. The elevation of the lowest floor (including basement) of all proposed buildings subject to the requirements of section 5-207 of this article, and
  - 5. The cost of project or improvements as estimated by a licensed engineer or architect. A signed estimate by a contractor may also meet this requirement.
- B. Upon receipt of an application for a development permit, the City Engineer shall compare the elevation of the site to the base flood elevation. Any development located on land that is shown by survey elevation to be below the current base flood elevation is subject to the provisions of this article. In addition, any development located on land shown to be below the base flood elevation and hydraulically connected to a flood source, but not identified as floodplain on the current Flood Insurance Rate Map, is subject to the provisions of this article. Any development located on land that can be shown by survey data to be higher than the current base flood elevation and which has not been filled after the date of the site's first Flood Insurance Rate Map is not in the floodplain and therefore not subject to the provisions of this article.
- C. The City Engineer shall maintain documentation of the existing ground elevation at the development site and certification that this ground elevation existed prior to the date of the site's first Flood Insurance Rate Map identification.
- D. The City Engineer shall be responsible for obtaining from the applicant copies of all other federal, state, and local permits, approvals or permit-not-required letters that may be required for this type of activity. The City Engineer shall not issue a permit unless all other federal, state, and local permits have been obtained.

# Sec. 5-206. Preventing Increased Flood Heights and Resulting Damages.

Within any floodway identified on the countywide Flood Insurance Rate Map, and within all other floodplains where a floodway has not been delineated, the following standards shall apply:

- A. Except as provided in subsection (B) of this section, no development shall be allowed which, acting in combination with existing and anticipated development, will cause any increase in flood heights or velocities or threat to public health and safety. The following specific development activities shall be considered as meeting this requirement:
  - 1. Bridge and culvert crossings of streams in rural areas meeting the conditions of the IDNR /OWR Statewide Permit Number 2;
  - 2. Barge fleeting facilities meeting the conditions of IDNR/OWR Statewide Permit Number 3;

- 3. Aerial utility crossings meeting the conditions of IDNR/OWR Statewide Permit Number 4;
- 4. Minor boat docks meeting the following conditions of IDNR/OWR Statewide Permit Number 5;
- 5. Minor, non-obstructive activities such as underground utility lines, light poles, sign posts, driveways, athletic fields, patios, playground equipment, minor storage buildings not exceeding 70 square feet and raising buildings on the same footprint which does not involve fill and any other activity meeting the conditions of IDNR/OWR Statewide Permit Number 6;
- 6. Outfall Structures and drainage ditch outlets meeting the following conditions of IDNR/OWR Statewide Permit Number 7;
- 7. Underground pipeline and utility crossings meeting the conditions of IDNR/OWR Statewide Permit Number 8;
- 8. Bank stabilization projects meeting the conditions of IDNR/OWR Statewide Permit Number 9;
- 9. Accessory structures and additions to existing residential buildings meeting the conditions of IDNR/OWR Statewide Permit Number 10;
- 10. Minor maintenance dredging activities meeting the following conditions of IDNR/OWR Statewide Permit Number 11;
- 11. Bridge and culvert replacement structures and bridge widening meeting the following conditions of IDNR/OWR statewide Permit Number 12;
- 12. Temporary construction activities meeting the following conditions of IDNR/OWR statewide Permit Number 13;
- 13. Any Development determined by IDNR/OWR to be located entirely within a flood fringe area shall be exempt from State Floodway permit requirements.
- B. Other development activities not listed in subsection (A) of this section may be permitted only if:
  - 1. A permit has been issued for the work by IDNR/OWR (or written documentation is provided that an IDNR/OWR permit is not required); or
  - 2. Sufficient data has been provided to FEMA when necessary, and approval obtained from FEMA for a revision of the regulatory map and base flood elevation.

# Sec. 5-207. Protecting Buildings.

- A. In addition to the state permit and damage prevention requirements of section 5-206 of this article, all buildings located in the floodplain shall be protected from flood damage below the flood protection elevation. This building protection requirement applies to the following situations:
  - Construction or placement of a new building or alteration or addition to an existing building valued at more than one thousand dollars (\$1,000) or seventy (70) square feet.
  - 2. Substantial improvements or structural alterations made to an existing building that increase the floor area by more than twenty percent (20%) or equal or exceed the market value by fifty percent (50%). Alteration shall be figured cumulatively during the life of the building. If substantially improved, the existing structure and the addition must meet the flood protection standards of this section.
  - 3. Repairs made to a substantially damaged building. These repairs shall be figured cumulatively during the life of the building. If substantially damaged the

entire structure must meet the flood protection standards of this section within 24 months of the date the damage occurred.

- 4. Installing a manufactured home on a new site or a new manufactured home on an existing site. (The building protection requirements do not apply to returning a manufactured home to the same site it lawfully occupied before it was removed to avoid flood damage).
- 5. Installing a travel trailer or recreational vehicle on a site for more than 180 days per year.
- 6. Repetitive loss to an existing building as defined in section 5-202.
- B. Residential or non-residential buildings can meet the building protection requirements by one of the following methods:
  - 1. The building may be constructed on permanent land fill in accordance with the following:
    - a) The lowest floor (including basement) shall be at or above the flood protection elevation;
    - b) The fill shall be placed in layers no greater than six inches before compaction and should extend at least 10 feet beyond the foundation before sloping below the flood protection elevation;
    - c) The fill shall be protected against erosion and scour during flooding by vegetative cover, riprap, or other structural measure;
    - d) The fill shall be composed of rock or soil and not incorporated debris or refuse material; and
    - e) The fill shall not adversely affect the flow of surface drainage from or onto neighboring properties and when necessary stormwater management techniques such as swales or basins shall be incorporated.
  - 2. The building may be elevated on solid walls in accordance with the following:
    - a) The building or improvements shall be elevated on stilts, piles, walls, crawlspace, or other foundation that is permanently open to flood waters;
    - b) The lowest floor and all electrical, heating, ventilating, plumbing, and air conditioning equipment and utility meters shall be located at or above the flood protection elevation;
    - c) If walls are used, all enclosed areas below the flood protection elevation shall address hydrostatic pressures by allowing the automatic entry and exit of flood waters. Designs must either be certified by a licensed professional engineer or by having a minimum of one (1) permanent opening on each wall no more than one (1) foot above grade with a minimum of two (2) openings. The openings shall provide a total net area of not less than one (1) square inch for every one (1) square foot of enclosed area subject to flooding below the base flood elevation; and
    - d) The foundation and supporting members shall be anchored, designed, and certified so as to minimize exposure to hydrodynamic forces such as current, waves, ice, and floating debris.
      - i. All structural components below the flood protection elevation shall be constructed of materials resistant to flood damage;
      - ii. Water and sewer pipes, electrical and telephone lines, submersible pumps, and other service facilities may be located below the flood protection elevation provided they are waterproofed;

- iii. The area below the flood protection elevation shall be used solely for parking or building access and not later modified or occupied as habitable space; or
- iv. In lieu of the above criteria, the design methods to comply with these requirements may be certified by a licensed professional engineer or architect.
- 3. The building may be constructed with a crawlspace located below the flood protection elevation provided that the following conditions are met:
  - a) The building must be designed and adequately anchored to resist flotation, collapse, and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;
  - b) Any enclosed area below the flood protection elevation shall have openings that equalize hydrostatic pressures by allowing for the automatic entry and exit of floodwaters. A minimum of one opening on each wall having a total net area of not less than one (1) square inch per one (1) square foot of enclosed area. The openings shall be no more than one (1) foot above grade;
  - c) The interior grade of the crawlspace below the flood protection elevation must not be more than two (2) feet below the lowest adjacent exterior grade;
  - d) The interior height of the crawlspace measured from the interior grade of the crawl to the top of the foundations wall must not exceed four (4) feet at any point;
  - e) An adequate drainage system must be installed to remove floodwaters from the interior area of the crawlspace within a reasonable period of time after a flood event;
  - f) Portions of the building below the flood protection elevation must be constructed with materials resistant to flood damage; and
  - g) Utility systems within the crawlspace must be elevated above the flood protection elevation.
- C. Non-residential buildings may be structurally dry floodproofed (in lieu of elevation) provided a licensed professional engineer or architect certifies that:
  - 1. Below the flood protection elevation the structure and attendant utility facilities are watertight and capable of resisting the effects of the base flood;
  - The building design accounts for flood velocities, duration, rate of rise, hydrostatic and hydrodynamic forces, the effects of buoyancy, and the impact from debris and ice;
  - Floodproofing measures will be incorporated into the building design and operable without human intervention and without an outside source of electricity;

Levees, berms, floodwalls and similar works are not considered floodproofing for the purpose of this subsection.

- D. Manufactured homes or travel trailers to be permanently installed on site shall be:
  - Elevated to or above the flood protection elevation in accordance with subsection (B) of this section; and

- 2. Anchored to resist flotation, collapse, or lateral movement by being tied down in accordance with the rules and regulations for the Illinois Mobile Home Tie-Down Act issued pursuant to 77 Ill. Adm. Code § 870, as amended.
- E. Travel trailers and recreational vehicles on site for more than 180 days per year shall meet the elevation requirements of subsection (D) of this section unless the following conditions are met:
  - 1. The vehicle must be either self-propelled or towable by a light duty truck;
  - 2. The hitch must remain on the vehicle at all times;
  - 3. The vehicle must not be attached to external structures such as decks and porches;
  - 4. The vehicle must be designed solely for recreation, camping, travel, or seasonal use rather than as a permanent dwelling;
  - 5. The vehicles largest horizontal projections must be no larger than 400 square feet;
  - 6. The vehicle's wheels must remain on axles and inflated;
  - 7. Air conditioning units must be attached to the frame so as to be safe for movement of the floodplain;
  - 8. Propane tanks as well as electrical and sewage connections must be quickdisconnect;
  - 9. The vehicle must be licensed and titled as a recreational vehicle or park model; and
  - 10. The vehicle must either be entirely be supported by jacks, or have a hitch jack permanently mounted, have the tires touching the ground, and be supported by block in a manner that will allow the block to be easily removed by used of the hitch jack.
- F. Garages, sheds or other minor accessory structures constructed ancillary to an existing residential use may be permitted provided the following conditions are met:
  - 1. The garage or shed must be non-habitable;
  - 2. The garage or shed must be used only for the storage of vehicles and tools and cannot be modified later into another use;
  - 3. The garage or shed must be located outside of the floodway or have the appropriate state and/or federal permits;
  - 4. The garage or shed must be on a single family lot and be accessory to an existing principle structure on the same lot;
  - 5. Below the base flood elevation, the garage or shed must be built of materials not susceptible to flood damage;
  - 6. All utilities, plumbing, heating, air conditioning, and electrical must be elevated above the flood protection elevation;
  - 7. The garage or shed must have at least one permanent opening on each wall not more than one (1) foot above grade with one (1) square inch of opening for every one (1) square foot of floor area;
  - 8. The garage or shed must be less than \$15,000 in market value or replacement cost whichever is greater or less than 576 square feet (24'x24');
  - 9. The structure shall be anchored to resist floatation and overturning;
  - 10. All flammable or toxic materials (gasoline, paint, insecticides, fertilizers, etc.) shall be stored above the flood protection elevation;
  - 11. The lowest floor elevation should be documented and the owner advised of the flood insurance implications.

## Sec. 5-208. Subdivision Requirements.

The City Engineer shall take into account hazards, to the extent that they are known, in all official actions related to land management use and development.

- A. New subdivisions, manufactured home parks, annexation agreements, planned unit developments, and additions to manufactured home parks and subdivisions shall meet the damage prevention and building protections standards of sections 5-206 and 5-207 of this article.
- B. Any proposal for such development shall include the following data:
  - The base flood elevation and the boundary of the floodplain. Where the base flood elevation is not available from an existing study, the applicant shall be responsible for calculating the base flood elevation;
  - 2. The boundary of the floodway when applicable; and
  - 3. A signed statement by a Licensed Professional Engineer that the proposed plat or plan accounts for changes in the drainage of surface waters in accordance with the Plat Act (765 ILCS 205/2), as amended.
- C. Streets, blocks lots, parks and other public grounds shall be located and laid out in such a manner as to preserve and utilize natural streams and channels. Wherever possible the floodplains shall be included within parks or other public grounds.

## Sec. 5-209. Public Health and Other Standards.

- A. Public health standards must be met for all floodplain development. In addition to the requirements of sections 5-206 and 5-207 of this article the following standards apply:
  - No development in the floodplain shall include locating or storing chemicals, explosives, buoyant materials, flammable liquids, pollutants, or other hazardous or toxic materials below the flood protection elevation unless such materials are stored in a floodproofed and anchored storage tank and certified by a professional engineer or floodproofed building constructed according to the requirements of section 5-207 of this article;
  - 2. Public utilities and facilities such as sewer, gas, and electric shall be located and constructed to minimize or eliminate flood damage;
  - 3. Public sanitary sewer systems and water supply systems shall be located and constructed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters;
  - 4. New and replacement on-site sanitary sewer lines or waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding. Manholes or other above ground openings located below the flood protection elevation shall be watertight;
  - 5. Construction of new or substantially improved critical facilities shall be located outside the limits of the floodplain. Construction of new critical facilities shall be permissible within the floodplain if no feasible alternative site is available. Critical facilities constructed within the SFHA shall have the lowest floor (including basement) elevated or structurally dry floodproofed to the 500-year flood frequency elevation or three feet above the level of the 100-year flood frequency elevation whichever is greater. Floodproofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into

floodwaters. Access routes elevated to or above the level of the base flood elevation shall be provided to all critical facilities.

B. All other activities defined as development shall be designed so as not to alter flood flows or increase potential flood damages.

## Sec. 5-210. Carrying Capacity and Notification.

For all projects involving channel modification, fill, or stream maintenance (including levees), the flood carrying capacity of the watercourse shall be maintained. In addition, the City shall notify adjacent communities in writing 30 days prior to the issuance of a permit for the alteration or relocation of the watercourse.

## Sec. 5-211. Variances.

Whenever the standards of this article place undue hardship on a specific development proposal, the applicant may apply to the Building Safety Code Board of Appeals for a variance. The Building Safety Code Board of Appeals shall review the applicant's request for a variance and shall submit its recommendation to the City Council. The City Council may attach such conditions to granting of a variance as it deems necessary to further the intent of this article.

- A. No variance shall be granted unless the applicant demonstrates that all of the following conditions are met:
  - 1. The development activity cannot be located outside the floodplain;
  - 2. An exceptional hardship would result if the variance were not granted;
  - 3. The relief requested is the minimum necessary;
  - 4. There will be no additional threat to public health, safety, or creation of a nuisance;
  - 5. There will be no additional public expense for flood protection, rescue or relief operations, policing, or repairs to roads, utilities, or other public facilities;
  - 6. The applicant's circumstances are unique and do not establish a pattern inconsistent with the intent of the NFIP; and
  - 7. All other state and federal permits have been obtained.
- B. The Building Safety Code Board of Appeals shall notify an applicant in writing that a variance from the requirements of the building protections standards of section 5-207 of this article that would lessen the degree of protection to a building will:
  - 1. Result in increased premium rates for flood insurance up to \$25 per \$100 of insurance coverage;
  - 2. Increase the risk to life and property; and
  - 3. Require that the applicant proceed with knowledge of these risks and that the applicant acknowledge in writing the assumption of the risk and liability.
- C. Historic Structures. Variances to the building protection requirements of section 5-207 of this article which are requested in connection with reconstruction, repair, or alteration of a historic site or historic structure as defined in "Historic Structures" may be granted using criteria more permissive than the requirements of sections 5-206 and 5-207 of this article subject to the conditions that:

- 1. The repair or rehabilitation is the minimum necessary to preserve the historic character and design of the structure;
- 2. The repair or rehabilitation will not result in the structure being removed as a certified historic structure.
- D. Agriculture.
  - Any variance granted for an agricultural structure shall be decided individually based on a case by case analysis of the building's unique circumstances. Variances granted shall meet the following conditions as well as those criteria and conditions set forth in this article.
  - 2. In order to minimize flood damages during the 100-year flood and the threat to public health and safety, the following conditions shall be included for any variance issued for agricultural structures that are constructed at-grade and wet-floodproofed.
    - All agricultural structures considered for a variance from the floodplain management regulations of this article shall demonstrate that the varied structure is located in wide, expansive floodplain areas and no other alternate location outside of the special flood hazard area exists for the agricultural structure. Residential structures or animal confinement facilities, such as farm houses, cannot be considered agricultural structures;
    - b) Use of the varied structures must be limited to agricultural purposes in zone A only as identified on the community's FIRM;
    - c) For any new or substantially damaged agricultural structures, the exterior and interior building components and elements (i.e., foundation, wall framing, exterior and interior finishes, flooring, etc.) below the base flood elevation, must be built with flood-resistant materials in accordance with section 5-207 of this article;
    - d) The agricultural structures must be adequately anchored to prevent flotation, collapse, or lateral movement of the structures in accordance with section 5-207 of this article. All of the building's structural components must be capable of resisting specific flood-related forces including hydrostatic, buoyancy, and hydrodynamic and debris impact forces;
    - e) Any mechanical, electrical, or other utility equipment must be located above the base flood elevation or floodproofed so that they are contained within a watertight, floodproofed enclosure that is capable of resisting damage during flood conditions in accordance with section 5-207 of this article;
    - f) The NFIP requires that enclosure or foundation walls, subject to the 100year flood, contain openings that will permit the automatic entry and exit of floodwaters in accordance with section 5-207(B) of this article;
    - g) The agricultural structures must comply with the floodplain management floodway provisions of section 5-206 of this article. No variances may be issued for agricultural structures within any designated floodway;
    - Wet-floodproofing construction techniques must be reviewed and approved by the floodplain administrator and a registered professional engineer or architect prior to the issuance of any floodplain development permit for construction.

## Sec. 5-212. Disclaimer of Liability.

The degree of protection required by this article is considered reasonable for regulatory purposes and is based on available information derived from engineering and scientific methods of study. Larger floods may occur or flood heights may be increased by manmade or natural causes. This article does not imply that development either inside or outside of the floodplain will be free from flooding or damage. This article does not create liability on the part of the City or any officer or employee thereof for any flood damage that results from proper reliance on this article or any administrative decision made lawfully thereunder.

## Sec. 5-213. Penalties.

Failure to obtain a permit for development in the floodplain or failure to comply with the conditions of a permit or a variance shall be deemed to be a violation of this article. Upon due investigation, the City Engineer may determine that a violation of the minimum standards of this article exists. The City Engineer shall notify the owner in writing of such violation and shall inform the owner that any such violation is considered a willful act to increase flood damages and therefore may cause coverage by a Standard Flood Insurance Policy to be suspended.

- A. If such owner fails after ten days notice to correct the violation, the City shall make application to the circuit court for an injunction requiring conformance with this article or make such other order as the court deems necessary to secure compliance with this article.
- B. Any person who violates this article shall upon conviction thereof be fined not less than \$100 nor more than \$750 for each offense. A separate offense shall be deemed committed upon each day during or on which a violation occurs or continues.
- C. The City shall record a notice of violation on the title of the property.
- D. The City Engineer is authorized to issue an order requiring the suspension of the subject development. The stop-work order shall be in writing, indicate the reason for the issuance, and shall order the action, if necessary, to resolve the circumstances requiring the stop-work order. The stop-work order constitutes a suspension of the permit.
- E. No site development permit shall be permanently suspended or revoked until a hearing is held by the Building Safety Code Board of Appeals. Written notice of such hearing shall be served on the permittee and shall state:
  - 1. The grounds for the complaint, reasons for suspension or revocation; and
  - 2. The time and place of the hearing.

At such hearing the permittee shall be given an opportunity to present evidence on his or her behalf. At the conclusion of the hearing, the Building Safety Code Board of Appeals shall determine whether the permit shall be suspended or revoked.

F. Nothing herein shall prevent the City of Urbana from taking such other lawful action to prevent or remedy any violations. All costs connected therewith shall accrue to the person or persons responsible.

### Secs. 5-214 – 5-230. Reserved.

#### ORDINANCE NO.

#### AN ORDINANCE AMENDING URBANA CITY CODE CHAPTER FIVE, ARTICLE XI

#### (Flood Hazard Areas)

WHEREAS, the City of Urbana ("City") is a home rule unit of local government pursuant to Article VII, Section 6, of the Illinois Constitution, 1970, and may exercise any power and perform any function pertaining to its government and affairs, including the power to regulate for the protection of the public health, safety, and welfare; and

WHEREAS, the City Council heretofore did on the 28th day of July 2011, pursuant to Ordinance No. 2011-07-062, enact Urbana City Code Chapter 5, Article XI, to establish a flood safety code for the protection of the public health, safety, and welfare; and

WHEREAS, changes in federal flood plain management criteria require the City to amend the said Article XI to maintain the City's standing as a participating community in the National Flood Insurance Program; and

WHEREAS, the Urbana Building Safety Code Board of Appeals reviewed the proposed amendment to Article XI at a meeting held on September 5, 2013, and thereafter voted to recommended that the City Council adopt said amendment; and

WHEREAS, the City Council finds that amending Article XI, as provided herein, will protect the health, safety, and welfare of the public.

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of Urbana, Champaign County, Illinois, as follows:

#### Section 1.

Urbana City Code Chapter 5, "Building, Fire and Flood Safety Codes," Article XI, "Flood Hazard Areas," is hereby amended with the underlined text indicating new language and the strikethrough text indicating deletions as set forth in Exhibit "A," which is attached hereto and incorporated herein by reference.

#### Section 2.

Those sections, paragraphs, and provisions of the Urbana City Code that are not expressly amended or repealed by this Ordinance are hereby re-enacted, and it is expressly declared to be the intention of this Ordinance not to repeal or amend any portions of the Urbana City Code other than those expressly set forth as amended or repealed in this Ordinance. The invalidity of any section or provision of this Ordinance hereby passed and approved shall not invalidate other sections or provisions thereof.

#### Section 3.

This Ordinance shall not be construed to affect any suit or proceeding pending

in any court, or any rights acquired, or a liability incurred, or any cause or causes of action acquired or existing prior to the effective date of this Ordinance; nor shall any right or remedy of any character be lost, impaired, or affected by this Ordinance.

#### Section 4.

The City Clerk is directed to publish this Ordinance in pamphlet form by authority of the corporate authorities, and this Ordinance shall be in full force and effect from and after its passage.

This Ordinance is hereby passed by the affirmative vote, the "ayes" and "nays" being called, of a majority of the members of the Council of the City of Urbana, Illinois, at a meeting of said Council.

PASSED BY THE CITY COUNCIL this \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_.

AYES:

NAYS:

ABSENT:

ABSTAINED:

Phyllis D. Clark, City Clerk

APPROVED BY THE MAYOR this \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_.

Laurel Lunt Prussing, Mayor

Flood Hazard Areas / 2

## Exhibit A

Urbana City Code Chapter 5 Building, Fire and Flood Safety Codes Article XI Flood Hazard Areas

## Sec. 5-201. Authority.

This Article is enacted pursuant to the police powers granted to this City by the Illinois Municipal Code (65 IL. Compiled Statutes 5/1-2-1, 5/11-12-12, 5/11-30-2, 5/11-30-8, and 5/11-31-2.

## Sec. 5-201. Authority; purposes.

This article is enacted pursuant to the police powers granted to this City by the Illinois Municipal Code (65 ILCS 5/1-2-1, 5/11-12-12, 5/11-30-2, 5/11-30-8 and 5/11-31-2) for the following purposes:

- A. To prevent unwise developments from increasing flood or drainage hazards to others;
- B. To protect new buildings and major improvements to buildings from flood damage;
- C. To promote and protect the public health, safety, and general welfare of the citizens from the hazards of flooding;
- D. Too lessen the burden on the taxpayer for flood control, repairs to public facilities and utilities, and flood rescue and relief operations;
- E. To maintain property values and a stable tax base by minimizing the potential for creating blight areas;
- F. To make federally subsidized flood insurance available; and
- <u>G.</u> To preserve the natural characteristics and functions of watercourses and floodplains in order to moderate flood and stormwater impacts, improve water quality, reduce soil erosion, protect aquatic and riparian habitat, provide recreational opportunities, provide aesthetic benefits, and enhance community and economic development.

## Sec. 5-202 Findings of Fact.

A. The flood hazard areas in the City and the extraterritorial area over which the Cityexercises jurisdiction are subject to periodic inundation which may result in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the taxbase, all of which adversely affect the public health, safety, and general welfare.

B. These flood losses are caused by the cumulative effect of obstructions in areas of special flood hazards which increase flood heights and velocities, and when inadequately anchored, damage uses in other areas. Uses that are inadequately floodproofed, elevated or otherwise protected from flood damage also contribute to the flood loss.

### Sec. 5-203. Statement of Purpose.

It is the purpose of this Article to promote the public health, safety, and general welfare, and tominimize public and private losses due to flood conditions in specific areas by provisionsdesigned to:

1. protect human life and health;

- 2. minimize expenditure of public money for costly flood control projects;
- 3. minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- 4. protect new buildings and major improvements to buildings from flood damage;
- 5. prevent new development from increasing flood or drainage hazards to others;
- 6. minimize prolonged business interruptions;
- 7. minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, and bridges located in areas of specialflood hazard;
- 8. help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas;
- 9. make federally subsidized flood insurance available for property in the City;
- 10. ensure that those who occupy the areas of special flood hazard assumeresponsibility for their actions; and
- 11. preserve the natural characteristics and functions of watercourses and floodplainsin order to moderate flood and storm water impacts, improve water quality, reduce soil

erosion, protect aquatic and riparian habitat, provide recreational-

opportunities, provide aesthetic benefits and enhance community and economic development.

## Sec. 5-204. Methods of Reducing Flood Losses.

In order to accomplish its purpose, this Article includes methods and provisions for:

- 1. restricting or prohibiting uses which are dangerous to health, safety, and propertydue to water or erosion hazards, or which result in damaging increases in erosionor in flood heights or velocities;
- 2. requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- 3. controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel floodwaters;
- 4. controlling filling, grading, dredging, and other development which may increase flood damage; and
- 5. preventing or regulating the construction of flood barriers which will unnaturally divert
  - floodwaters or which may increase flood hazards in other areas.

## Sec. 5-205. Definitions.

Unless specifically defined below, words or phrases used in this Article shall be interpreted soas to give them the meaning they have in common usage and to give this Article its mostreasonable application.

**Appeal** means a request for a review of the City Engineer's or Building Official's interpretation of any provision of this article or a request for a variance.

Base flood means the flood having a 1% chance of being equaled or exceeded in any given-

year. The base flood is also known as the 100-year flood. The base flood elevation (BFE) at any location is as defined in section 5-207 and section 5-214 of this article.

**Base Flood Elevation (BFE)**-means the elevation in relation to mean sea level of the crestof the base flood.

**Building**-means a structure that is principally above ground and is enclosed by walls and a roof. The term includes a gas or liquid storage tank, a manufactured home, or a prefabricated

building. The term also includes recreational vehicles and travel trailers to be installed on asite for more than 180 days.

**City Engineer** or **Building Official** means the City Engineer or Building Official of the City as it pertains; whichever official by training, experience, or ordinance is best assigned to review and approve a particular type of development or a particular development issue which may arise in the administration of this flood damage prevention article.

**Critical Facility** means any public or private facility which, if flooded, would create an added dimension to the disaster or would increase the hazard to life and health. Examples are public buildings, emergency operations and communication centers, health care facilities and nursing homes, schools, and toxic waste treatment, handling or storage facilities.

**Development**-means any human-made change to improved or unimproved realestate, including, but not limited to:

- 1. construction, reconstruction, or placement of a building or an addition to a building valued at more than \$1,000.00;
- installing a manufactured home on a site or preparing a site for a manufactured home;
- 3. drilling, mining, installing utilities or facilities, construction of roads, bridges or similar projects.
- 4. construction or erection of levees, walls or fences;
- 5. filling, dredging, grading, excavating, paving, or other nonagricultural alterationsof the ground surface;
- 6. storage of materials including the placement of gas or liquid storage tanks; and
- 7. channel modifications or any other activity that might change the direction, height, or velocity of floodwaters or surface waters.

Development does not include:

- 1. maintenance of existing buildings and facilities such as re-roofing or resurfacing roads;
- 2. repairs made to a damaged building that do not change the building's exteriordimensions and that are valued at less than 50% of the value of the buildingbefore the damage occurred; and
- 3. gardening, plowing, and similar agricultural practices that do not involvefilling, grading, or construction of levees.

Existing Manufactured Home Park or Manufactured Home Subdivision means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or

sale for which the construction of facilities for servicing the lot on which the manufacturedhome is to be affixed (including, at a minimum, the installation of utilities, either final sitegrading or the pouring of concrete pads, and the construction of streets) is completed beforethe effective date of this Article.

## Expansion to an Existing Manufactured Home Park or Manufactured Home-

**Subdivision** means the preparation of additional sites by the construction of facilities forservicing the lots on which the manufactured homes are to be affixed (including theinstallation of utilities, either final site grading or pouring of concrete or the construction ofstreets).

FEMA means Federal Emergency Management Agency.

**Flood** or **Flooding**-means a general and temporary condition of partial or completeinundation of normally dry land areas from the unusual and rapid accumulation or run-off ofsurface waters from any source.

Flood Fringe means that portion of the floodplain outside of the regulatory floodway.

Flood Insurance Rate Map (FIRM) means a map prepared by the Federal Emergency Management Agency that depicts the floodplain or special flood hazard area (SFHA) within a community. This map includes insurance rate zones and may or may not depict floodways and show base flood elevations.

**Floodplain** and **Special Flood Hazard Area (SFHA)** are synonymous. Those lands within the jurisdiction of the City of Urbana that are subject to inundation by the base flood. The floodplains of the Boneyard Creek, McCullough Creek and Saline Branch are generally identified as such on the Flood Insurance Rate Map of the City of Urbana prepared by the Federal-Emergency Management Agency and dated July 16, 1980, as amended. The floodplains of those parts of unincorporated City of Urbana that are within the extraterritorial jurisdictionof

the City of Urbana or that may be annexed into the City of Urbana are generally identified as such on the Flood Insurance Rate Map prepared for Champaign County by the Federal-Emergency Management Agency and dated July 16, 1980, as amended. Floodplain also includes those areas of known flooding as identified by the community.

**Floodproofing**-means any combination of structural or nonstructural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate, property and their contents.

**Floodproofing Certificate** means a form published by the Federal Emergency Management Agency that is used to certify that a building has been designed and constructed to be structurally dry floodproofed to the flood protection elevation.

Flood Protection Elevation or FPE means the elevation of the base flood plus one foot of freeboard at any given location in the floodplain.

Floodway means that portion of the floodplain required to store and convey the base flood. The floodway for the floodplains of the Boneyard Creek, McCullough Creek and Saline Branchshall be as delineated on the Flood Boundary and Floodway Map prepared by FEMA and dated July 16, 1980, as amended. The floodways for each of the remaining floodplains of the City of Urbana shall be according to the best data available from Federal, State, or othersources.

**IDNR/OWR**-means Illinois Department of Natural Resources/Office of Water Resources.

Manufactured Home or Prefabricated Building means a structure that is transportable in one or more sections, built on a permanent chassis, and designed to be used with or without a permanent foundation when connected to the required utilities. It does not include recreational vehicles or travel trailers.

**New Construction** means structures for which the "start of construction" commenced on or after the effective date of this article.

**New Manufactured Home Park** or **Manufactured Home Subdivision** means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale for which the construction of facilities for servicing the lot (including, at a minimum, the installation of utilities, either final site grading or the pouring of concrete pads and the construction of streets) is completed on or after the effective date of this article.

**NFIP**-means National Flood Insurance Program.

**Repetitive Loss** means flood related damages sustained by a structure on two separate occasions during a ten year period for which the cost of repairs at the time of each such flood event on the average equals or exceeds 25% of the market value of the structure before the damage occurred.

Special Flood Hazard Area (SFHA). See definition of floodplain.

**Start of Construction** means the first placement of permanent construction of a structure (other than a manufactured home) on a site, such as the pouring of slabs or footings or any-work beyond the stage of excavation. Permanent construction does not include land preparation, such

as clearing, grading, and filling; nor does it include the installation of streets and/orwalkways; nor does it include excavation for footings, piers or foundations or the erection oftemporary forms; nor does it include the installation on the property of accessory buildingssuch as garages

or sheds not occupied as dwelling units or not as part of the main structure. For a structure-(other than a manufactured home) without a basement or poured footings, the "start ofconstruction" includes the first permanent framing or assembly of a structure or any partthereof

on its piling or foundation. For manufactured homes not within a manufactured home park or manufactured home subdivision, "start of construction" means the affixing of the-

manufactured home to its permanent site. For manufactured homes within manufacturedhome parks or manufactured home subdivisions, "start of construction" is the date on whichthe construction of

facilities for servicing the site on which the manufactured home is to be affixed (including, at a minimum, the construction of streets, either final site grading or the pouring of

concrete pads, and installation of utilities) is completed.

**Structure** means a walled and roofed building, a manufactured home, or a gas or liquidstorage tank, that is principally above ground.

**Substantial Damage** means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damage condition would equal or exceed 50% of the market value of the structure before the damage occurred regardless of actual repair work performed. Volunteer labor and materials must be included in this determination.

**Substantial Improvement** means any repair, reconstruction, addition, or improvement of a structure, the cost of which equals or exceeds 50% of the market value of the structure either:

- 1. before the improvement or repair is started; or
- 2. if the structure has been damaged and is being restored to its market value beforethe damage occurred.

If the applicant is unable to produce reasonable evidence of the market value prior to the occurrence of flood damage, the City Engineer or Building Official shall establish the market value by multiplying the assessed valuation by three.

For purposes of this definition "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure.

The term does not, however, include either:

- any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure
  - safe living conditions; or
- 2. any alteration of a structure listed on the National Register of Historic Places or astate inventory of historic places.

Travel Trailer (or Recreational Vehicle) means a vehicle which is:

- 1. built on a single chassis;
- 2. 400 square feet or less in size;
- 3. designed to be self-propelled or permanently towable by a light duty truck; and
- 4. designed primarily not for use as a permanent dwelling but as temporaryliving quarters for recreational, camping, travel, or seasonal use.

**Variances**-means a grant of relief from the requirements of this Article whichpermits construction in a manner that would otherwise be prohibited by this-Article.

Sec. 5-202. Definitions.

For the purposes of this article, the following definitions are adopted:

Base Flood means the flood having a one percent (1%) probability of being equaled or

exceeded in any given year. The base flood is also known as the 100-year flood. The base flood elevation at any location is as defined in section 5-203 of this article.

**Base Flood Elevation (BFE)** means the elevation in relation to mean sea level of the crest of the base flood.

**Basement** means that portion of a building having its floor sub-grade (below ground level) on all sides.

**Building** means a walled and roofed structure, including gas or liquid storage tank that is principally above ground including manufactured homes, prefabricated buildings and gas or liquid storage tanks. The term also includes recreational vehicles and travel trailers installed on a site for more than 180 days.

*City Engineer* or *Building Official* means the City Engineer or Building Official of the City as it pertains; whichever official by training, experience, or ordinance is best assigned to review and approve a particular type of development or a particular development issue which may arise in the administration of this flood damage prevention article.

**Critical Facility** means any facility which is critical to the health and welfare of the population and, if flooded, would create an added dimension to the disaster. Damage to these critical facilities can impact the delivery of vital services, can cause greater damage to other sectors of the community, or can put special populations at risk. Examples of critical facilities where flood protection should be required include: emergency services facilities (such as fire and police stations), schools, hospitals retirement homes and senior care facilities, major roads and bridges, critical utility sites (telephone switching stations or electrical transformers, and hazardous material storage facilities (chemicals, petrochemicals, hazardous or toxic substances).

**Development** means any human-made change to real estate including, but not necessarily limited to:

- 1. Demolition, construction, reconstruction, repair, placement of a building, or any structural alteration to a building;
- 2. Substantial improvement of an existing building;
- 3. Installation of a manufactured home on a site, preparing a site for a manufactured home, or installing a travel trailer on a site for more than 180 days;
- 4. Installation of utilities, construction of roads, bridges, culverts or similar projects;
- 5. Construction or erection of levees, dams walls or fences;
- 6. Drilling, mining, filling, dredging, grading, excavating, paving, or other alterations of the ground surface;
- 7. Storage of materials including the placement of gas and liquid storage tanks, and channel modifications or any other activity that might change the direction, height, or velocity of flood or surface waters.

<u>"Development" does not include routine maintenance of existing buildings and facilities, resurfacing roads, or gardening, plowing, and similar practices that do not involve filing, grading, or construction of levees.</u>

Existing Manufactured Home Park or Subdivision means a manufactured home park or

subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed or buildings to be constructed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the floodplain management regulations adopted by a community.

**Expansion to an Existing Manufactured Home Park** or **Subdivision** means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

FEMA means Federal Emergency Management Agency.

**Flood** means a general and temporary condition of partial or complete inundation of normally dry land areas from the overflow, the unusual and rapid accumulation, or the runoff of surface waters from any source.

Flood Fringe means that portion of the floodplain outside of the regulatory floodway.

**Flood Insurance Rate Map (FIRM)** means a map prepared by FEMA that depicts the floodplain or special flood hazard area (SFHA) within a community. This map includes insurance rate zones and may or may not depict floodways and show base flood elevations.

*Flood Insurance Study* means an examination, evaluation, and determination of flood hazards and, if appropriate, corresponding water surface elevations.

**Floodplain** and **Special Flood Hazard Area (SFHA)** are synonymous. Those lands within the jurisdiction of the City the extraterritorial jurisdiction of the City or that may be annexed into the City, that are subject to inundation by the base flood. The floodplains of the City are generally identified as such on panel numbers 313, 314, 318, 325, 426, 427, 429, 431, and 450 of the countywide Flood Insurance Rate Map of Champaign County prepared by FEMA and effective October 2, 2013, as amended. Floodplain also includes those areas of known flooding as identified by the community.

The floodplains of those parts of unincorporated Champaign County that are within the extraterritorial jurisdiction of the City or that may be annexed into the City are generally identified as such on the Flood Insurance Rate map prepared for Champaign County by FEMA and effective October 2, 2013, as amended.

*Floodproofing* means any combination of structural or nonstructural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate, property and their contents.

*Floodproofing Certificate* means a form published by FEMA that is used to certify that a building has been designed and constructed to be structurally dry flood proofed to the flood protection elevation.

**Flood Protection Elevation (FPE)** means the elevation of the base flood plus one foot of freeboard at any given location in the floodplain.

*Floodway* means that portion of the floodplain required to store and convey the base flood. The floodway for the floodplains of Boneyard Creek, McCullough Creek, and Saline Branch shall be as delineated on the countywide Flood Insurance Rate Map of Champaign County prepared by FEMA and effective October 2, 2013, as amended. The floodways for each of the remaining floodplains of the City shall be according to the best data available from Federal, State, or other sources.

*Freeboard* means an increment of elevation added to the base flood elevation to provide a factor of safety for uncertainties in calculations, future watershed development, unknown localized conditions, wave actions, and unpredictable effects such as those caused by ice or debris jams.

Historic Structure means any structure that is:

- 1. Listed individually in the National Register of Historic Places or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register:
- 2. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
- 3. Individually listed on the state inventory of historic places by the Illinois Historic Preservation Agency;
- 4. Individually listed on a local inventory of historic places that has been certified by the Illinois Historic Preservation Agency.

IDNR/OWR means Illinois Department of Natural Resources/Office of Water Resources.

**IDNR /OWR Jurisdictional Stream** means Illinois Department of Natural Resource Office of Water Resources has jurisdiction over any stream serving a tributary area of 640 acres or more in an urban area, or in the floodway of any stream serving a tributary area of 6,400 acres or more in a rural area. Construction on these streams requires a permit from the Department. (III Admin. Code tit. 17, pt. 3700.30). The Department may grant approval for specific types of activities by issuance of a statewide permit which meets the standards defined in section 5-206 of this article.

**Lowest Floor** means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor. Provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of section 5-207 of this article.

**Manufactured Home** means a structure transportable in one or more sections that is built on a permanent chassis and is designed to be used with or without a permanent foundation when connected to required utilities.

*Manufactured Home Park* or *Subdivision* means a parcel (or contiguous parcels) of land divided into two or more lots for rent or sale.

*New Construction* means structures for which the start of construction commenced or after the effective date of floodplain management regulations adopted by a community and includes any subsequent improvements of such structures.

**New Manufactured Home Park** or **Subdivision**- A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the

manufactured homes are to be affixed or buildings to be constructed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of the floodplain management regulations adopted by a community.

**NFIP** means National Flood Insurance Program.

# Recreational Vehicle or Travel Trailer means a vehicle which is:

- 1. Built on a single chassis;
- 2. Four hundred (400) square feet or less in size;
- 3. Designed to be self-propelled or permanently towable by a light duty truck and designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel or seasonal use.

**Repetitive Loss** means flood related damages sustained by a structure on two separate occasions during a ten year period for which the cost of repairs at the time of each such flood event on the average equals or exceeds 25% of the market value of the structure before the damage occurred.

# Special Flood Hazard Area (SFHA) is synonymous with "floodplain."

**Start of Construction** includes substantial improvement and means the date the building permit was issued. This, provided the actual start of construction, repair, reconstruction, rehabilitation, addition placement or other improvement, was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns or any work beyond the stage of excavation or placement of a manufactured home on a foundation. For a substantial improvement, actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building whether or not that alteration affects the external dimensions of the building.

Structure is synonymous with "Building."

**Substantial Damage** means damage of any origin sustained by a structure whereby the cumulative percentage of damage during the life of the building equals or exceeds fifty percent (50%) of the market value of the structure before the damage occurred regardless of actual repair work performed. Volunteer labor and materials must be included in this determination. The term includes "Repetitive Loss" buildings."

**Substantial Improvement** means any reconstruction, rehabilitation, addition, or improvement of a structure taking place during the life of the building in which the cumulative percentage of improvements equals or exceeds fifty percent (50%) of the market value of the structure before the improvement or repair is started, or increases the floor area by more than twenty percent (20%).

"Substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure. This term includes structures which have incurred repetitive loss or substantial damage, regardless of the actual repair work done.

The term does not include:

- 1. Any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions; or
- 2. Any alteration of a structure listed on the National Register of Historic Places or the Illinois Register of Historic Places.

**Violation** means the failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without the required federal, state, and/or local permits and elevation certification is presumed to be in violation until such time as the documentation is provided.

# Sec. 5-203. Base Flood Elevation.

This article's protection standard is the base flood. The best available base flood data are listed below. Whenever a party disagrees with the best available data, the party shall finance the detailed engineering study needed to replace the existing data with better data and submit it to the FEMA and IDNR/OWR for approval prior to any development of the site.

- A. The base flood elevation for the floodplains of Boneyard Creek, McCullough Creek, and Saline Branch shall be as delineated on the 100-year flood profiles in the countywide Flood Insurance Study of Champaign County prepared by FEMA and effective October 2, 2013, as amended.
- B. The base flood elevation for each floodplain delineated as an "AH Zone" or AO Zone" shall be that elevation (or depth) delineated on the countywide Flood Insurance Rate Map of Champaign County.
- C. The base flood elevation for each of the remaining floodplains delineated as an "A Zone" on the countywide Flood Insurance Rate Map of Champaign County shall be according to the best data available from federal, state, or other sources. Should no other data exist, an engineering study must be financed by the applicant to determine base flood elevations.
- D.The base flood elevation for the floodplains of those parts of unincorporated<br/>Champaign County that are within the extraterritorial jurisdiction of the City, or that<br/>may be annexed into the City, shall be as delineated on the 100-year flood profiles in<br/>the Flood Insurance Study of Champaign County prepared by FEMA and effective<br/>October 2, 2013, as amended.

# Sec. 5-204. Duties of City Engineer.

The City Engineer shall be responsible for the general administration of this article and shall ensure that all development activities within the floodplains under the jurisdiction of the City meet the requirements of this article. Specifically, the City Engineer shall:

- A. Process development permits in accordance with section 5-205;
- B. Ensure that all development in a floodway (or a floodplain with no delineated floodway) meets the damage prevention requirements of section 5-206;
- C. Ensure that the building protection requirements for all buildings subject to section 5-207 are met and maintain a record of the "as-built" elevation of the lowest floor (including basement) or floodproof certificate;
- D. Assure that all subdivisions and annexations meet the requirements of section 5-208;

- E. Ensure that water supply and waste disposal systems meet the Public Health standards of section 5-209;
- F. If a variance is requested, ensure that the requirements of section 5-211 are met and maintain documentation of any variances granted;
- <u>G.</u> Inspect all development projects and take any and all penalty actions outlined in section 5-213 as a necessary to ensure compliance with this article;
- H. Assure that applicants are aware of and obtain any and all other required local, state, and federal permits;
- I. Notify IDNR/OWR and any neighboring communities prior to any alteration or relocation of a watercourse;
- J.Provide information and assistance to citizens upon request about permit proceduresand floodplain construction techniques;
- K. Cooperate with state and federal floodplain management agencies to coordinate base flood data and to improve the administration of this article;
- L. Maintain for public inspection base flood data, floodplain maps, copies of state and federal permits, and documentation of compliance for development activities subject to this article;
- <u>M.</u> Perform site inspections to ensure compliance with this article and make substantial damage determinations for structures within the floodplain; and
- N. Maintain the accuracy of floodplain maps including notifying IDNR/OWR and/or submitting information to FEMA within six months whenever a modification of the floodplain may change the base flood elevation or result in a change to the floodplain map.

# Sec. 5-205. Development Permit.

No person, firm, corporation, or governmental body not exempted by law shall commence any development in the floodplain without first obtaining a development permit from the City Engineer The City Engineer shall not issue a development permit if the proposed development does not meet the requirements of this article.

- A. The application for development permit shall be accompanied by:
  - 1. Drawings of the site, drawn to scale showing property line dimensions;
  - 2. Existing grade elevations and all changes in grade resulting from excavation or filling;
  - 3. The location and dimensions of all buildings and additions to buildings;
  - 4. The elevation of the lowest floor (including basement) of all proposed buildings subject to the requirements of section 5-207 of this article, and
  - 5. The cost of project or improvements as estimated by a licensed engineer or architect. A signed estimate by a contractor may also meet this requirement.
- B. Upon receipt of an application for a development permit, the City Engineer shall compare the elevation of the site to the base flood elevation. Any development located on land that is shown by survey elevation to be below the current base flood elevation is subject to the provisions of this article. In addition, any development located on land shown to be below the base flood elevation and hydraulically connected to a flood source, but not identified as floodplain on the current Flood Insurance Rate Map, is subject to the provisions of this article. Any development located on land that can be shown by survey data to be higher than the current base flood elevation and which has not been filled after the date of the site's first Flood Insurance Rate Map is not in the floodplain and therefore not subject to the provisions of this article.

- C. The City Engineer shall maintain documentation of the existing ground elevation at the development site and certification that this ground elevation existed prior to the date of the site's first Flood Insurance Rate Map identification.
- D. The City Engineer shall be responsible for obtaining from the applicant copies of all other federal, state, and local permits, approvals or permit-not-required letters that may be required for this type of activity. The City Engineer shall not issue a permit unless all other federal, state, and local permits have been obtained.

## Sec. 5-206. Lands to Which this Article Applies.

This Article shall apply to special flood hazard areas within the jurisdiction of the City, thoseparts of unincorporated City of Urbana that are within the extraterritorial jurisdiction of the Cityof Urbana, or that may be annexed into the City of Urbana.

## Sec. 5-206. Preventing Increased Flood Heights and Resulting Damages.

Within any floodway identified on the countywide Flood Insurance Rate Map, and within all other floodplains where a floodway has not been delineated, the following standards shall apply:

- A. Except as provided in subsection (B) of this section, no development shall be allowed which, acting in combination with existing and anticipated development, will cause any increase in flood heights or velocities or threat to public health and safety. The following specific development activities shall be considered as meeting this requirement:
  - 1. Bridge and culvert crossings of streams in rural areas meeting the conditions of the IDNR /OWR Statewide Permit Number 2;
  - 2. Barge fleeting facilities meeting the conditions of IDNR/OWR Statewide Permit Number 3;
  - 3. Aerial utility crossings meeting the conditions of IDNR/OWR Statewide Permit Number 4;
  - 4. Minor boat docks meeting the following conditions of IDNR/OWR Statewide Permit Number 5;
  - 5. Minor, non-obstructive activities such as underground utility lines, light poles, sign posts, driveways, athletic fields, patios, playground equipment, minor storage buildings not exceeding 70 square feet and raising buildings on the same footprint which does not involve fill and any other activity meeting the conditions of IDNR/OWR Statewide Permit Number 6;
  - 6. Outfall Structures and drainage ditch outlets meeting the following conditions of IDNR/OWR Statewide Permit Number 7;
  - 7. Underground pipeline and utility crossings meeting the conditions of IDNR/OWR Statewide Permit Number 8;
  - 8. Bank stabilization projects meeting the conditions of IDNR/OWR Statewide Permit Number 9;
  - 9. Accessory structures and additions to existing residential buildings meeting the conditions of IDNR/OWR Statewide Permit Number 10;
  - 10. Minor maintenance dredging activities meeting the following conditions of IDNR/OWR Statewide Permit Number 11:
  - 11. Bridge and culvert replacement structures and bridge widening meeting the following conditions of IDNR/OWR statewide Permit Number 12;

- 12. Temporary construction activities meeting the following conditions of IDNR/OWR statewide Permit Number 13;
- 13. Any Development determined by IDNR/OWR to be located entirely within a flood fringe area shall be exempt from State Floodway permit requirements.
- B. Other development activities not listed in subsection (A) of this section may be permitted only if:
  - 1. A permit has been issued for the work by IDNR/OWR (or written documentation is provided that an IDNR/OWR permit is not required); or
  - 2. Sufficient data has been provided to FEMA when necessary, and approval obtained from FEMA for a revision of the regulatory map and base flood elevation.

## Sec. 5-207. Basis for Establishing Special Flood Hazard Areas.

The Special Flood Hazard Areas identified by the Federal Insurance Administration in an engineering report entitled "The Flood Insurance Study for the City of Urbana," dated July-16,

1980, as amended, with accompanying flood insurance rate maps and flood boundaryfloodway maps and flood hazard boundary maps of the County of Champaign dated March 1, 1984, are hereby adopted by reference and declared to be a part of this Article. The Flood-Insurance Study

is on file at the Department of Community Development Services, City of Urbana.

# Sec. 5-207. Protecting Buildings.

- A. In addition to the state permit and damage prevention requirements of section 5-206 of this article, all buildings located in the floodplain shall be protected from flood damage below the flood protection elevation. This building protection requirement applies to the following situations:
  - 1. Construction or placement of a new building or alteration or addition to an existing building valued at more than one thousand dollars (\$1,000) or seventy (70) square feet.
  - 2. Substantial improvements or structural alterations made to an existing building that increase the floor area by more than twenty percent (20%) or equal or exceed the market value by fifty percent (50%). Alteration shall be figured cumulatively during the life of the building. If substantially improved, the existing structure and the addition must meet the flood protection standards of this section.
  - 3. Repairs made to a substantially damaged building. These repairs shall be figured cumulatively during the life of the building. If substantially damaged the entire structure must meet the flood protection standards of this section within 24 months of the date the damage occurred.
  - 4. Installing a manufactured home on a new site or a new manufactured home on an existing site. (The building protection requirements do not apply to returning a manufactured home to the same site it lawfully occupied before it was removed to avoid flood damage).

- 5. Installing a travel trailer or recreational vehicle on a site for more than 180 days per year.
- 6. Repetitive loss to an existing building as defined in section 5-202.
- B. Residential or non-residential buildings can meet the building protection requirements by one of the following methods:
  - 1. <u>The building may be constructed on permanent land fill in accordance with the following:</u>
    - a) The lowest floor (including basement) shall be at or above the flood protection elevation;
    - b) The fill shall be placed in layers no greater than six inches before compaction and should extend at least 10 feet beyond the foundation before sloping below the flood protection elevation;
    - c) The fill shall be protected against erosion and scour during flooding by vegetative cover, riprap, or other structural measure;
    - d) The fill shall be composed of rock or soil and not incorporated debris or refuse material; and
    - e) The fill shall not adversely affect the flow of surface drainage from or onto neighboring properties and when necessary stormwater management techniques such as swales or basins shall be incorporated.
  - 2. The building may be elevated on solid walls in accordance with the following:
    - a) The building or improvements shall be elevated on stilts, piles, walls, crawlspace, or other foundation that is permanently open to flood waters;
    - b) The lowest floor and all electrical, heating, ventilating, plumbing, and air conditioning equipment and utility meters shall be located at or above the flood protection elevation;
    - c) If walls are used, all enclosed areas below the flood protection elevation shall address hydrostatic pressures by allowing the automatic entry and exit of flood waters. Designs must either be certified by a licensed professional engineer or by having a minimum of one (1) permanent opening on each wall no more than one (1) foot above grade with a minimum of two (2) openings. The openings shall provide a total net area of not less than one (1) square inch for every one (1) square foot of enclosed area subject to flooding below the base flood elevation; and
    - a)d) The foundation and supporting members shall be anchored, designed, and certified so as to minimize exposure to hydrodynamic forces such as current, waves, ice, and floating debris.
      - i. All structural components below the flood protection elevation shall be constructed of materials resistant to flood damage;
      - ii. Water and sewer pipes, electrical and telephone lines, submersible pumps, and other service facilities may be located below the flood protection elevation provided they are waterproofed;
      - iii. The area below the flood protection elevation shall be used solely for parking or building access and not later modified or occupied as habitable space; or

- iv. In lieu of the above criteria, the design methods to comply with these requirements may be certified by a licensed professional engineer or architect.
- 3. The building may be constructed with a crawlspace located below the flood protection elevation provided that the following conditions are met:
  - a) The building must be designed and adequately anchored to resist flotation, collapse, and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;
  - b) Any enclosed area below the flood protection elevation shall have openings that equalize hydrostatic pressures by allowing for the automatic entry and exit of floodwaters. A minimum of one opening on each wall having a total net area of not less than one (1) square inch per one (1) square foot of enclosed area. The openings shall be no more than one (1) foot above grade;
  - c) The interior grade of the crawlspace below the flood protection elevation must not be more than two (2) feet below the lowest adjacent exterior grade;
  - d) The interior height of the crawlspace measured from the interior grade of the crawl to the top of the foundations wall must not exceed four (4) feet at any point;
  - e) An adequate drainage system must be installed to remove floodwaters from the interior area of the crawlspace within a reasonable period of time after a flood event;
  - f)Portions of the building below the flood protection elevation must be<br/>constructed with materials resistant to flood damage; and
  - g) Utility systems within the crawlspace must be elevated above the flood protection elevation.
- C. Non-residential buildings may be structurally dry floodproofed (in lieu of elevation) provided a licensed professional engineer or architect certifies that:
  - 1. Below the flood protection elevation the structure and attendant utility facilities are watertight and capable of resisting the effects of the base flood;
  - 2. The building design accounts for flood velocities, duration, rate of rise, hydrostatic and hydrodynamic forces, the effects of buoyancy, and the impact from debris and ice;
  - 3. Floodproofing measures will be incorporated into the building design and operable without human intervention and without an outside source of electricity;

Levees, berms, floodwalls and similar works are not considered floodproofing for the purpose of this subsection.

- D. Manufactured homes or travel trailers to be permanently installed on site shall be:
  - 1. Elevated to or above the flood protection elevation in accordance with subsection (B) of this section; and
  - 2. Anchored to resist flotation, collapse, or lateral movement by being tied down in accordance with the rules and regulations for the Illinois Mobile Home Tie-Down Act issued pursuant to 77 Ill. Adm. Code § 870, as amended.

- E. Travel trailers and recreational vehicles on site for more than 180 days per year shall meet the elevation requirements of subsection (D) of this section unless the following conditions are met:
  - 1. The vehicle must be either self-propelled or towable by a light duty truck;
  - 2. The hitch must remain on the vehicle at all times;
  - 3. The vehicle must not be attached to external structures such as decks and porches;
  - 4. The vehicle must be designed solely for recreation, camping, travel, or seasonal use rather than as a permanent dwelling;
  - 5. The vehicles largest horizontal projections must be no larger than 400 square feet;
  - 6. The vehicle's wheels must remain on axles and inflated;
  - 7. Air conditioning units must be attached to the frame so as to be safe for movement of the floodplain;
  - 8. Propane tanks as well as electrical and sewage connections must be quickdisconnect;
  - 9. The vehicle must be licensed and titled as a recreational vehicle or park model; and
  - 10. The vehicle must either be entirely be supported by jacks, or have a hitch jack permanently mounted, have the tires touching the ground, and be supported by block in a manner that will allow the block to be easily removed by used of the hitch jack.
- F. Garages, sheds or other minor accessory structures constructed ancillary to an existing residential use may be permitted provided the following conditions are met:
  - 1. The garage or shed must be non-habitable;
  - 2. The garage or shed must be used only for the storage of vehicles and tools and cannot be modified later into another use;
  - 3. The garage or shed must be located outside of the floodway or have the appropriate state and/or federal permits;
  - 4. The garage or shed must be on a single family lot and be accessory to an existing principle structure on the same lot;
  - 5. Below the base flood elevation, the garage or shed must be built of materials not susceptible to flood damage;
  - 6. All utilities, plumbing, heating, air conditioning, and electrical must be elevated above the flood protection elevation;
  - 7. The garage or shed must have at least one permanent opening on each wall not more than one (1) foot above grade with one (1) square inch of opening for every one (1) square foot of floor area;
  - 8. The garage or shed must be less than \$15,000 in market value or replacement cost whichever is greater or less than 576 square feet (24'x24');
  - 9. The structure shall be anchored to resist floatation and overturning;
  - 10. All flammable or toxic materials (gasoline, paint, insecticides, fertilizers, etc.) shall be stored above the flood protection elevation;
  - 11. The lowest floor elevation should be documented and the owner advised of the flood insurance implications.

# Sec. 5-208. Abrogation and Greater Restrictions.

This Article repeals and replaces other ordinances adopted by the City of Urbana to fulfill the requirements of the National Flood Insurance Program. However, this Article does not repeal the original resolution or ordinance adopted to achieve eligibility in the program. Nor does this Article repeal, abrogate, or impair any existing easements, covenants, or deed restrictions.

Where this Article and other ordinance easements, covenants, or deed restrictions conflictor overlap, whichever imposes the more stringent restrictions shall prevail.

## Sec. 5-208. Subdivision Requirements.

The City Engineer shall take into account hazards, to the extent that they are known, in all official actions related to land management use and development.

- A. New subdivisions, manufactured home parks, annexation agreements, planned unit developments, and additions to manufactured home parks and subdivisions shall meet the damage prevention and building protections standards of sections 5-206 and 5-207 of this article.
- B. Any proposal for such development shall include the following data:
  - 1. The base flood elevation and the boundary of the floodplain. Wherethe base flood elevation is not available from an existing study, the applicantshall be responsible for calculating the base flood elevation;
  - 2. The boundary of the floodway when applicable; and
  - 3. A signed statement by a Licensed Professional Engineer that the proposed plat or plan accounts for changes in the drainage of surface waters in accordance with the Plat Act (765 ILCS 205/2), as amended.
- C. Streets, blocks lots, parks and other public grounds shall be located and laid out in such a manner as to preserve and utilize natural streams and channels. Wherever possible the floodplains shall be included within parks or other public grounds.

## Sec. 5-209. Interpretation.

In the interpretation and application of this Article, all provisions shall be:

1. considered as minimum requirements;

- 2. liberally construed in favor of the governing body; and
- 3. deemed neither to limit nor repeal any other powers granted under state statutes.

## Sec. 5-209. Public Health and Other Standards.

- A. Public health standards must be met for all floodplain development. In addition to the requirements of sections 5-206 and 5-207 of this article the following standards apply:
  - 1. No development in the floodplain shall include locating or storing chemicals, explosives, buoyant materials, flammable liquids, pollutants, or other hazardous or toxic materials below the flood protection elevation unless such materials are stored in a floodproofed and anchored storage tank and certified by a professional engineer or floodproofed building constructed according to the requirements of section 5-207 of this article;

- 2. Public utilities and facilities such as sewer, gas, and electric shall be located and constructed to minimize or eliminate flood damage;
- 3. Public sanitary sewer systems and water supply systems shall be located and constructed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters;
- 4. New and replacement on-site sanitary sewer lines or waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding. Manholes or other above ground openings located below the flood protection elevation shall be watertight;
- 5. Construction of new or substantially improved critical facilities shall be located outside the limits of the floodplain. Construction of new critical facilities shall be permissible within the floodplain if no feasible alternative site is available. Critical facilities constructed within the SFHA shall have the lowest floor (including basement) elevated or structurally dry floodproofed to the 500-year flood frequency elevation or three feet above the level of the 100-year flood frequency elevation whichever is greater. Floodproofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into floodwaters. Access routes elevated to or above the level of the base flood elevation shall be provided to all critical facilities.
- B. All other activities defined as development shall be designed so as not to alter flood flows or increase potential flood damages.

## Sec. 5-210. Warning and Disclaimer of Liability.

The degree of flood protection required by this Article is considered reasonable for regulatorypurposes and is based on available information derived from engineering and scientificmethods of study. Larger floods can and will occur.

Flood heights may be increased by man-made or natural causes. This Article does not imply that land outside the special flood hazard areas or uses permitted within such areas will be free from flooding or flood damages. This Article shall not create liability on the part of the City, any officer or employee thereof for any flood damages that result from reliance on this Article or any administrative decision lawfully made thereunder.

# Sec. 5-210. Carrying Capacity and Notification.

For all projects involving channel modification, fill, or stream maintenance (including levees), the flood carrying capacity of the watercourse shall be maintained. In addition, the City shall notify adjacent communities in writing 30 days prior to the issuance of a permit for the alteration or relocation of the watercourse.

## Sec. 5-211. Development Permit - Required; Application.

No person, firm, corporation, or governmental body not exempted by law shall commence any development in the SFHA without first obtaining a development permit from the City Engineer or Building Official. The City Engineer or Building Official shall issue a Development Permit if the proposed development meets the requirements of this Article.

A Development Permit shall be obtained before construction or development begins within any special flood hazard area established in Section 5-207. Application for a Development Permit

shall be made on forms furnished by the City Engineer or Building Official. The application shall include, but not be limited to, plans in triplicate, prepared under the supervision of and sealed by a licensed engineer or land surveyor, drawn to scale, showing property line dimensions of the site

and in those parts of the site that are below the base flood elevation, drawings or other information which will show the following:

- 1. existing and/or proposed grade elevations, in relation to mean sea level;
- 2. the location and dimensions, where applicable, of all existing and/orproposed development, structures, fill, storage of materials, drainagefacilities, etc.;
- 3. elevation in relation to mean sea level, of the lowest floor, including basement, of all structures;
- 4. elevation in relation to mean sea level to which any structure and/or developmenthas

been or will be floodproofed;

- 5. existing and/or proposed direction of flow of surface drainage and flood flows;
- 6. existing and/or proposed location of all watercourses and drainage facilities;
- 7. description of the extent to which any watercourses will be altered or relocated as a result of proposed development;
- 8. certification by a registered professional engineer that the floodproofing methodsfor any nonresidential structure meet the floodproofing criteria in Subsection 5-219; and
- 9. such other information as the City Engineer or Building Official deems necessary to ensure that the development is consistent with the purposes set forth in this article.
- 10. cost of project or improvements as estimated by a licensed engineer or architect. A signed estimate by a contractor may also meet this requirement.

## Sec. 5-211. Variances.

Whenever the standards of this article place undue hardship on a specific development proposal, the applicant may apply to the Building Safety Code Board of Appeals for a variance. The Building Safety Code Board of Appeals shall review the applicant's request for a variance and shall submit its recommendation to the City Council. The City Council may attach such conditions to granting of a variance as it deems necessary to further the intent of this article.

- A. No variance shall be granted unless the applicant demonstrates that all of the following conditions are met:
  - 1. The development activity cannot be located outside the floodplain;
  - 2. An exceptional hardship would result if the variance were not granted;
  - 3. The relief requested is the minimum necessary;
  - 4. There will be no additional threat to public health, safety, or creation of a nuisance;
  - 5. There will be no additional public expense for flood protection, rescue or relief operations, policing, or repairs to roads, utilities, or other public facilities;
  - 6. The applicant's circumstances are unique and do not establish a pattern inconsistent with the intent of the NFIP; and

- 7. All other state and federal permits have been obtained.
- B.The Building Safety Code Board of Appeals shall notify an applicant in writing that a<br/>variance from the requirements of the building protections standards of section 5-<br/>207 of this article that would lessen the degree of protection to a building will:
  - 1. Result in increased premium rates for flood insurance up to \$25 per \$100 of insurance coverage;
  - 2. Increase the risk to life and property; and
  - 3. Require that the applicant proceed with knowledge of these risks and that the applicant acknowledge in writing the assumption of the risk and liability.
- C. Historic Structures. Variances to the building protection requirements of section 5-207 of this article which are requested in connection with reconstruction, repair, or alteration of a historic site or historic structure as defined in "Historic Structures" may be granted using criteria more permissive than the requirements of sections 5-206 and 5-207 of this article subject to the conditions that:
  - 1. The repair or rehabilitation is the minimum necessary to preserve the historic character and design of the structure;
  - 2. The repair or rehabilitation will not result in the structure being removed as a certified historic structure.
- D. Agriculture.
  - 1. Any variance granted for an agricultural structure shall be decided individually<br/>based on a case by case analysis of the building's unique circumstances.Variances granted shall meet the following conditions as well as those criteria<br/>and conditions set forth in this article.
  - 2. In order to minimize flood damages during the 100-year flood and the threat to public health and safety, the following conditions shall be included for any variance issued for agricultural structures that are constructed at-grade and wetfloodproofed.
    - a) All agricultural structures considered for a variance from the floodplain management regulations of this article shall demonstrate that the varied structure is located in wide, expansive floodplain areas and no other alternate location outside of the special flood hazard area exists for the agricultural structure. Residential structures or animal confinement facilities, such as farm houses, cannot be considered agricultural structures;
    - b) Use of the varied structures must be limited to agricultural purposes in zone A only as identified on the community's FIRM;
    - c) For any new or substantially damaged agricultural structures, the exterior and interior building components and elements (i.e., foundation, wall framing, exterior and interior finishes, flooring, etc.) below the base flood elevation, must be built with flood-resistant materials in accordance with section 5-207 of this article;
    - d) The agricultural structures must be adequately anchored to prevent flotation, collapse, or lateral movement of the structures in accordance with section 5-207 of this article. All of the building's structural components must be capable of resisting specific flood-related forces

including hydrostatic, buoyancy, and hydrodynamic and debris impact forces;

- e) Any mechanical, electrical, or other utility equipment must be located above the base flood elevation or floodproofed so that they are contained within a watertight, floodproofed enclosure that is capable of resisting damage during flood conditions in accordance with section 5-207 of this article;
- f)The NFIP requires that enclosure or foundation walls, subject to the 100-<br/>year flood, contain openings that will permit the automatic entry and exit<br/>of floodwaters in accordance with section 5-207(B) of this article;
- g) The agricultural structures must comply with the floodplain management floodway provisions of section 5-206 of this article. No variances may be issued for agricultural structures within any designated floodway:
- h) Wet-floodproofing construction techniques must be reviewed and approved by the floodplain administrator and a registered professional engineer or architect prior to the issuance of any floodplain development permit for construction.

# Sec 5-212. Development Permit Review.

Upon receipt of the application for Development Permit, the City Engineer or Building-Official shall:

A. Review all Development Permit applications to determine that the permit requirementsof

Section 5-211 have been satisfied;

B. Inform the applicant of any other local, state, and federal permits that may be required for this type of development activity of which the City has been informed and

acknowledged in writing by other local, state, and federal agencies. The City's-Development Permit will only be issued on the condition that the above specifiedpermits are obtained. The City Engineer or Building Official shall not issue a usepermit unless all required permits of which the City has been informed andacknowledged have been

obtained;

C. Review all Development Permits to determine if the proposed development is located in the floodway. If located in the floodway, assure that the encroachment provisions of

Section 5-220 are met;

D. Compare the elevation of the site to the base flood elevation. Any development located on land higher than the base flood elevation is not in the SFHA and, therefore, notsubject to the requirements of this Article. Conversely, any development located onland shown to

be below the base flood elevation and hydraulically connected, but not shown on the current Flood Insurance Rate Map is subject to the provisions of this Article.

# Sec. 5-212. Disclaimer of Liability.

The degree of protection required by this article is considered reasonable for regulatory

purposes and is based on available information derived from engineering and scientific methods of study. Larger floods may occur or flood heights may be increased by manmade or natural causes. This article does not imply that development either inside or outside of the floodplain will be free from flooding or damage. This article does not create liability on the part of the City or any officer or employee thereof for any flood damage that results from proper reliance on this article or any administrative decision made lawfully thereunder.

# Sec. 5-213. Reserved

# Sec. 5-213. Penalties.

Failure to obtain a permit for development in the floodplain or failure to comply with the conditions of a permit or a variance shall be deemed to be a violation of this article. Upon due investigation, the City Engineer may determine that a violation of the minimum standards of this article exists. The City Engineer shall notify the owner in writing of such violation and shall inform the owner that any such violation is considered a willful act to increase flood damages and therefore may cause coverage by a Standard Flood Insurance Policy to be suspended.

- A. If such owner fails after ten days notice to correct the violation, the City shall make application to the circuit court for an injunction requiring conformance with this article or make such other order as the court deems necessary to secure compliance with this article.
- B. Any person who violates this article shall upon conviction thereof be fined not less than \$100 nor more than \$750 for each offense. A separate offense shall be deemed committed upon each day during or on which a violation occurs or continues.
- C. The City shall record a notice of violation on the title of the property.
- D. The City Engineer is authorized to issue an order requiring the suspension of the subject development. The stop-work order shall be in writing, indicate the reason for the issuance, and shall order the action, if necessary, to resolve the circumstances requiring the stop-work order. The stop-work order constitutes a suspension of the permit.
- E. No site development permit shall be permanently suspended or revoked until a hearing is held by the Building Safety Code Board of Appeals. Written notice of such hearing shall be served on the permittee and shall state:

The grounds for the complaint, reasons for suspension or revocation; and
The time and place of the hearing.

At such hearing the permittee shall be given an opportunity to present evidence on his or her behalf. At the conclusion of the hearing, the Building Safety Code Board of Appeals shall determine whether the permit shall be suspended or revoked.

F.Nothing herein shall prevent the City of Urbana from taking such other lawful action<br/>to prevent or remedy any violations. All costs connected therewith shall accrue to<br/>the person or persons responsible.

#### Sec. 5-214. Base Flood Elevation.

This Article's protection standard is the base flood according to the best data available to the Illinois State Water Survey's Flood Plain Information Repository. Whenever a party disagrees with the best available data, said party may finance the detailed engineering study needed to replace existing data. The detailed engineering study shall be submitted to FEMA, IDNR/OWR, and the City Engineer for review and approval prior any development of the site.

A. The base flood elevation for the SFHA's of the Boneyard Creek, McCullough Creek and Saline Branch shall be as delineated on the 100-year flood profiles in the Flood-Insurance Study of the City prepared by the Federal Insurance Administration and dated July 16,

1980, as amended.

- B. The base flood elevation for each floodplain delineated as an "AH Zone" or "AO Zone" shall be that elevation (or depth) delineated on the Flood Insurance Rate Map of the City of Urbana.
- C. The base flood elevation for each of the remaining floodplains delineated as an "A Zone" on the Flood Insurance Rate Map of the City of Urbana shall be according to the best data available from federal, state or other sources. Should no other data exist, an engineering study must be financed to determine base flood elevations.
- D. The base flood elevation for the SFHAs of those parts of unincorporated Champaign-County that are within the extraterritorial jurisdiction of the City or that may be annexed into the City shall be as delineated on the 100 year flood profiles in the Flood Insurance

Study of Champaign County prepared by the Federal Emergency Management Agencyand dated September 1, 1983, as amended.

#### Sec. 5-215. Alteration of Watercourses.

- A. The applicant shall notify adjacent communities and the IDNR/OWR and othergovernmental units of jurisdiction prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance-Administration.
- B. The City shall require of the applicant that maintenance is provided within the alteredor relocated portion of said watercourse so that the flood-carrying capacity is notdiminished.

The applicant shall provide a statement from the appropriate party acceptingsuch maintenance responsibility.

#### Sec. 5-216. Interpretation of FIRM Boundaries.

The City Engineer or Building Official may make interpretations where needed, as to the exact location of the SFHA, for example, where there appears to be a conflict between a mapped boundary and actual field conditions. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in Section 5-217.

#### Sec. 5-217. Variance Procedure.

#### A. Appeal Board.

- 1. The Building Safety Code Board of Appeals as established by Ordinance No. 8788-40, as amended, shall hear and decide appeals and requests for variances from the requirements of this Article.
- 2. The Building Safety Code Board of Appeals shall hear and decide appeals when itis alleged there is an error in any requirements, decision or determination madeby the City Engineer or Building Official in the enforcement or administration of this Article.
- 3. Those aggrieved by the decision of the Building Safety Code Board of Appeals, or any taxpayer, may appeal such decision to the court of appropriate jurisdiction.
- 4. In reviewing such applications, the Building Safety Code Board of Appeals shall consider all technical evaluations, all relevant factors, standards specified in other sections of this Article, and:

a.) the danger that materials may be swept onto other lands to the injury of others;

- b.) the danger to life and property due to flooding or erosion damage;
- c.) the susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;

d.) the importance of the services provided by the proposed facility to the community;

- e.) the availability of alternative locations for the proposed use which are not subjected to flooding or erosion damage;
- f.) the compatibility of the proposed use with existing and anticipated development;
- g.) the relationship of the proposed use to the comprehensive plan and floodplain management program of that area;
- h.) the safety of access to the property in times of flood for ordinary and emergency vehicles;
- i.) the expected heights, velocity, duration, rate of rise, and sediment transport of the waters and the effects of wave action, if applicable, expected at the site; and
- j.) the cost of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilitiessuch as sewer, gas, electrical, and water systems, and streets and bridges.
- 5. Upon consideration of the factors of Subsection 5-217.4 and the purposes of this Article, the Building Safety Code Board of Appeals may attach such conditions tothe granting of variances as it deems necessary to further the purposes of this Article.
- 6. The Building Official shall maintain the records of all appeal actions, including technical information, and report any variances to the Federal Insurance Administration upon request.

B. Conditions for Variances.

1. Generally, variances may be issued for new construction and substantialimprovements to be erected on a lot of one-half acre or less in size contiguous toand surrounded by lots with existing structures constructed below the base floodlevel, providing items a) through j) in Subsection 5-217.4 have been fully considered. As the lot size increases beyond one-half acre, the technical justification for issuing the variance increases.

- 2. Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or the State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this section.
- 3. Variances shall not be issued within any designated floodway if any increases in flood levels during the base flood discharge would result.
- 4. Variances shall only be issued upon a determination that the variance is the minimum

necessary, considering the flood hazard, to afford relief.

- 5. Variances shall only be issued upon:
  - a.) a showing of good and sufficient cause;
  - b.) a determination that failure to grant the variance would result in exceptional hardship to the applicant; and
  - c.) a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisance, cause fraud on or victimization of the public as identified in Subsection
    - 5-217.4, or conflict with existing local laws or ordinances.
- 6. Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below the base flood elevation and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

The Building Official shall also notify the applicant in writing that a variance from the requirements of this ordinance that would lessen the degree of protection to a building will:

a.) result in increased risk to life and property; and

b.) require that the applicant proceed with knowledge of these risks and that the applicant acknowledge in writing the assumption of all risk and liability and agrees to hold the City of Urbana harmless in the event of a flood.

## Sec 5-218. Subdivision Requirements

The City Engineer shall take into account flood hazards, to the extent that they are known, inall official actions related to land management use and development.

- A. New subdivisions, manufactured home parks, annexation agreements, planned unitdevelopments, and additions to manufactured home parks and subdivisions shall meetthe damage prevention and building protection standards of Sections 5-219 and 5-220of this Article.
- B. Any proposal for such development shall include the following data:

- 1. the base flood elevation and the boundary of the floodplain (where the base flood elevation is not available from an existing study, the applicant shall be responsible for calculating the base flood elevation);
- 2. the boundary of the floodway when applicable; and
- a signed statement by a Registered Professional Engineer that the proposed plat or plan accounts for changes in the drainage of surface waters in accordancewith the

Plat Act (765 IL Compiled Statutes 205/2).

#### Sec. 5-219. – Floodproofing Standards

A. In addition to the damage prevention requirements of Section 5-220, all buildingslocated in the floodplain shall be protected from flood damage below the floodprotection elevation.

This building protection requirement applies to the following situations:

- 1. construction or placement of a new building valued at more than \$1,000 or containing at least 70 square feet in area;
- 2. substantial improvements made to an existing building. This alteration shall be figured cumulatively beginning with any alteration which has taken place subsequent to the adoption of this Article;
- 3. repairs made to a substantially damaged building. These repairs shall be figured cumulatively beginning with any repairs which have taken place subsequent to the adoption of this Article;

4. structural alterations made to an existing building that increase the floor area bymore

than 20%;

5. installing a manufactured home on a new site or a new manufactured home on an existing site (the building protection requirements do not apply to returning a manufactured home to the same site it lawfully occupied before it was removed to

avoid flood damage);

- 6. installing a travel trailer or recreational vehicle on a site for more than 180 days per year; and
- 7. repetitive loss to an existing building as defined in Section 5-205.
- B. Residential or non-residential buildings can meet the building protection requirementsby one of the following methods:
  - 1. The building may be constructed on permanent land fill in accordance with the following:
    - a.) the lowest floor (including basement) shall be at or above the flood protection e elevation;
    - b.) the fill shall be placed in layers no greater than six inches before compaction and should extend at least ten feet beyond the foundation before sloping below-

the flood protection elevation;

- c.) the fill shall be protected against erosion and scour during flooding by vegetative cover, riprap, or other structural measure;
- d.) the fill shall be composed of rock or soil and not incorporate debris or refuse materials; and
- e.) the fill shall not adversely affect the flow of surface drainage from or onto neighboring properties and when necessary, storm water managementtechniques such as swales or basins shall be incorporated; or
- 2. The building may be elevated in accordance with the following:
  - a.) The building or improvements shall be elevated on stilts, piles, walls, or other foundation that is permanently open to flood waters;
  - b.) The lowest floor and all electrical, heating, ventilating, plumbing, and air conditioning equipment and utility meters shall be located at or above the flood protection elevation;
  - c.) If walls are used, all enclosed areas below the flood protection elevation shall address hydrostatic pressures by allowing the automatic entry and exit of flood waters. Designs must either be certified by a registered professional engineer or by having a minimum of one permanent opening on each wall nomore than one

foot above grade. The openings shall provide a total net area of not less than one square inch for every one square foot of enclosed area subject to flooding-below the base flood elevation;

d.) the foundation and supporting members shall be anchored, designed, and certified so as to minimize exposure to hydrodynamic forces such as current, waves, ice

and floating debris;

- e.) the finished interior grade shall not be less than the finished exterior grade;
- f.) all structural components below the flood protection elevation shall be constructed of materials resistant to flood damage; and
- g.) water and sewer pipes, electrical and telephone lines, submersible pumps, and other service facilities may be located below the flood protectionelevation provided they are waterproofed.
- C. Manufactured homes or travel trailers to be permanently installed on site shall be: 1. elevated to or above the flood protection elevation; and
  - anchored to resist flotation, collapse, or lateral movement by being tied down inaccordance with the Rules and Regulations for the Illinois Mobile Home Tie-Down-Act

issued pursuant to 77 IL Adm. Code 870.

D. Travel trailers and recreational vehicles on site for more than 180 days shall meet the elevation requirements of Subsection 5-219c unless the following conditions are met:

1. the vehicle must be either self-propelled or towable by a light duty truck.

The hitch must remain on the vehicle at all times;

- 2. the vehicle must not be attached to external structures such as decks and porches;
- 3. the vehicle must be designed solely for recreation, camping, travel, or seasonaluse rather than as a permanent dwelling;
- 4. the vehicles largest horizontal projections must be no larger than 400 square feet;
- 5. the vehicle's wheels must remain on axles and inflated;
- 6. air conditioning units must be attached to the frame so as to be safe for movement out of the floodplain;
- 7. propane tanks, electrical and sewage connections must be quick-disconnectand above the 100-year flood elevation;
- 8. the vehicle must be licensed and titled as a recreational vehicle or park model; and
- 9. the vehicle must be either (a) entirely supported by jacks rather than blocks or (b) have a hitch jack permanently mounted, have the tires touching the ground, and be supported by blocks in a manner that will allow the blocks to be easily removed by use of the hitch jack.
- E. Non-residential buildings may be structurally dry floodproofed (in lieu of elevation) provided a registered professional engineer or architect certifies that:
  - 1. below the flood protection elevation the structure and attendant utility facilitiesare watertight and capable of resisting the effects of the base flood;
  - 2. the building design accounts for flood velocities, duration, rate of rise, hydrostaticand
    - hydrodynamic forces, the effects of buoyancy, and the impact from debris and ice; and
  - 3. floodproofing measures will be incorporated into the building design and operable without human intervention and without an outside source of electricity.
- F. Levees, berms, floodwalls and similar works are not considered floodproofing forthe purpose of this Section.
- G. Garages or sheds constructed ancillary to a residential use may be permitted provided the following conditions are met:
  - 1. the garage of shed must be non-habitable;
  - 2. the garage or shed must be used only for the storage of vehicles and tools and cannot be modified later into another use;
  - 3. the garage or shed must be located outside of the floodway;
  - 4. the garage or shed must be on a single family lot and be accessory to an existing principal structure on the same lot;
  - 5. below the base flood elevation, the garage or shed must be built of materialsnot susceptible to flood damage;
  - 6. all utilities, plumbing, heating, air conditioning and electrical must be elevatedabove
    - the flood protection elevation;
  - 7. the garage or shed must have at least one permanent opening on each wall no-

more than one foot above grade with one square inch of opening for every square-foot of floor area;

- 8. the garage or shed must be less than \$7,500 in market value or replacement cost whichever is greater or less than 500 square feet in area;
- 9. the structure shall be anchored to resist floatation and overturning;
- 10. all flammable or toxic materials (gasoline, paint, insecticides, fertilizers, etc.) shall be stored above the flood protection elevation; and
- 11. the lowest floor elevation should be documented and the owner advised of the flood insurance implications.

H. A building may be constructed with a crawlspace located below the flood protection elevation provided that the following conditions are met:

- 1. the building must be designed and adequately anchored to resist flotation, collapse, and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;
- any enclosed area below the flood protection elevation shall have openings that equalize hydrostatic pressures by allowing for the automatic entry and exit offloodwaters. A minimum of one opening shall be provided on each wall having atotal

net area of not less than one square inch per one square foot of enclosed area. The openings shall be no more than one foot above grade;

- 3. the interior grade of the crawlspace below the flood protection elevation must not be more than two feet below the lowest adjacent exterior grade;
- 4. the interior height of the crawlspace measured from the interior grade of the crawl to the top of the foundation wall must not exceed four feet at any point;
- 5. an adequate drainage system must be installed to remove floodwaters from the interior area of the crawlspace within a reasonable period of time after a flood event;
- 6. portions of the building below the flood protection elevation must be constructed with materials resistant to flood damage; and
- 7. utility systems within the crawlspace must be elevated above the flood protection elevation.

#### Sec. 5-220. Floodways.

Within the floodway identified on the Flood Boundary and Floodway Map, and within allother floodplains where a floodway has not been delineated, the following standards shallapply:

- A. Except as provided in Section 5-220(B), no development shall be allowed which, acting in combination with existing and anticipated development, will cause any increase in flood heights or velocities or threat to public health and safety. The following-specific development activities shall be considered as meeting this requirement:
  - 1. barge fleeting facilities meeting the conditions of IDNR/OWR Statewide Permit No. 3;
  - 2. aerial utility crossings meeting the conditions of IDNR/OWR Statewide Permit No. 4;
  - 3. minor boat docks meeting the conditions of IDNR/OWR Statewide Permit No. 5;

- 4. minor, non-obstructive activities meeting the conditions of IDNR/OWR Statewide Permit No 6;
- 5. outfall structures and drainage ditch outlets meeting the conditions of IDNR/OWR Statewide Permit No. 7;
- 6. underground pipeline and utility crossings meeting the conditions of IDNR/OWR Statewide Permit No. 8;
- 7. bank stabilization projects meeting the conditions of IDNR/OWR Statewide Permit No. 9;
- 8. accessory structures and additions to existing residential buildings meeting the conditions of IDNR/OWR Statewide Permit No. 10;

9. minor maintenance dredging activities meeting the conditions of IDNR/OWR-Statewide

Permit No. 11;

- 10. bridge and culvert replacement structures and bridge widenings meeting the conditions of IDNR/OWR Statewide Permit No. 12;
- 11. temporary construction activities meeting the conditions of IDNR/OWR Statewide Permit No. 13; and
- 12. any development determined by IDNR/OWR to be located entirely within a Flood Fringe area.

B. Other development activities not listed in Section 5-220(A) may be permitted only if:

- 1. a permit has been issued for the work by IDNR/OWR (or written documentation is provided that an IDNR/OWR permit is not required); and
- 2. sufficient data has been provided to FEMA when necessary, and approval obtained from FEMA for a revision of the regulatory map and base flood elevation.

#### Sec. 5-221. Penalties for Noncompliance.

Failure to obtain a permit for development in the floodplain or failure to comply with the conditions of a permit or a variance shall be deemed to be a violation of this Article. Upon due investigation, the City Engineer or his designee may determine that a violation of the minimum standards of this Article exists. The City Engineer or his designee shall notify the owner in writing of such violation.

A. If such owner fails after ten days notice to correct the violation:

- 1. The City shall make application to the Circuit Court for an injunction requiring conformance with this Article or make such other order as the court deems necessary to secure compliance with the Article;
- 2. Any person who violates this Article shall upon conviction thereof be fined notless than one hundred (\$100.00) nor more than five hundred dollars (\$500.00)for each offense; and
- 3. A separate offense shall be deemed committed upon each day during or on which a violation occurs or continues.
- 4. The City of Urbana shall record a notice of violation on the title to the property.
- B. The City Engineer or his designee shall inform the owner that any such violation is-

considered a willful act to increase flood damages and therefore may cause coverage by a Standard Flood Insurance Policy to be suspended.

C. Nothing herein shall prevent the City of Urbana from taking such other lawful action to prevent or remedy any violations. All costs connected therewith shall accrue to the person or persons responsible.

#### Sec. 5-222. Public Health and Other Standards

- A. Public health standards must be met for all floodplain development. In addition to the requirements of Sections 5-219 and 5-220, the following standards apply:
  - No development in the floodplain shall include locating or storing chemicals, explosives, buoyant materials, flammable liquids, pollutants, or other hazardous or toxic materials below the flood protection elevation unless such materials are stored in a floodproofed

and anchored storage tank and certified by a professional engineer orfloodproofed building constructed according to the requirements of Section 5-220 of this Article.

- 2. Public utilities and facilities such as sewer, gas, and electric shall be located and constructed to minimize or eliminate flood damage.
- 3. Public sanitary sewer systems and water supply systems shall be located and constructed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters.
- 4. New and replacement on-site sanitary sewer lines or waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding. Manholes or other above ground openings located belowthe flood

protection elevation shall be watertight.

- 5. Critical facilities shall be protected to the 500-year flood elevation. In addition, all ingress and egress from any critical facility must be protected to the 500-year flood elevation.
- B. All other activities defined as development shall be designed so as not to alter flood flows or increase potential flood damages.

Secs. 5-223 - 5-230. Reserved.

Secs. 5-214 - 5-230. Reserved.