

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 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Those sections, paragraphs, and provisions of the Urbana City Code that are not expressly amended or repealed by this Ordinance are hereby re-enacted, and it is expressly declared to be the intention of this Ordinance not to repeal or amend any portions of the Urbana City Code other than those expressly set forth as amended or repealed in this Ordinance.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. To 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;
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.

“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. (Ill 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:
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. 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;
  - 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 quick-disconnect;
  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:
  - 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
  - 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:
  - 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. 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.

1. 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.
  - 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-year 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;
  - 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. 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 man-made 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.**