

Section 4-16 FLOOD PLAIN OVERLAY DISTRICT - FP

4-16.1 INTENT

The FP Flood Plain Overlay District that is super-imposed over the other zoning districts and is intended to fulfill the following goals:

- 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 protect human life and health from the hazards of flooding;
- D) To lessen the burden on the taxpayer for flood control projects, repairs to flood-damaged 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 flood blighted areas;
- F) To make federally subsidized flood insurance available for property in the City by fulfilling the requirements of the National Flood Insurance Program.

4-16.2 SELECTED DEFINITIONS

Base Flood: The flood having a one-percent probability of being equaled or exceeded in any given year. The base flood is also known as the one-hundred year flood.

Base Flood Elevation (BFE): The elevation in relation to mean sea level of the crest of the base flood. The base flood elevation at any location is defined in Section 4-16.3 of this Article.

Building: A structure that is principally above ground and is enclosed by walls and a roof, including manufactured homes or prefabricated buildings. The term also includes recreational vehicles and travel trailers to be installed on a site for more than one-hundred eighty days.

Development means any man-made change to real estate, including:

- A) Construction, reconstruction, or placement of a building or any addition to a building valued at more than one-thousand dollars (\$1,000);
- B) Substantial improvement of an existing building;
- C) Installing a manufactured home on a site, preparing a site for a manufactured home or installing a travel trailer on a site for more than one-hundred eighty days;
- D) Installing utilities, construction of roads, or similar projects;

- E) Construction or erection of levees, walls, fences, bridges or culverts;
- F) Drilling, mining, filling, dredging, grading, excavating, or other nonagricultural alterations of the ground surface;
- G) Storage of materials, including the placement of gas and liquid storage tanks;
- H) Any other activity that might change the direction, height, or velocity of flood or surface waters.

“Development” does not include the maintenance of existing buildings and facilities such as re-roofing; re-surfacing roads; or gardening, plowing, and similar agricultural practices that do not involve filling, grading, or construction of levees.

Flood: A general and temporary condition of 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: That portion of the floodplain outside of the regulatory floodway.

Flood Insurance Rate Map: A map prepared by FEMA that depicts the floodplain or SFHA within a community. This map includes insurance rate zones and may or may not depict floodways and show base flood elevation.

Floodplain: Synonymous with Special Flood Hazard Area (SFHA). Those lands within the jurisdiction of the City that are subject to inundation by the base flood. The floodplains of the City are generally identified as such on the Flood Insurance Rate Map of the City prepared by the Federal Emergency Management Agency and dated May 1, 1979. The floodplains of those parts of un-incorporated Madison 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 Madison County by FEMA and dated April 15, 1982. A copy of these maps, showing the affected areas within and around the City is provided in Attachment 1.

Floodproofing: 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: A form published by FEMA 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 (FPE): The elevation of the base flood plus two feet of freeboard at any given location in the floodplain. (Ord. 03-13, passed 11/3/03)

Floodway: That portion of the floodplain required to store and convey the base flood. The floodways for the floodplains of the City shall be as delineated on the Flood Boundary and

Floodway Map prepared by FEMA and dated May 1, 1979 or according to the best data available.

Freeboard: A margin of safety added to the base flood elevation to account for waves, debris, miscalculations, or lack of data. (Ord. 03-13, passed 11/3/03)

Special Flood Hazard Area (SFHA): See definition of "Floodplain."

Substantial Damage: 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. (Ord. 03-13, passed 11/3/03)

Substantial Improvement: Any reconstruction, rehabilitation, addition, or improvement of a structure, the cost of which equals or exceeds 50% of the market value of the structure of 20% or more of the square footage of the structure either (a) before the improvements or repair is started, or (b) if the structure has been damaged, and is being restored, before the damage occurred. "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 dimension of the structure. The term does not, however, include either (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. (Ord. 03-13, passed 11/3/03)

4-16.3 BASE FLOOD ELEVATION

The best available base flood data are listed below. Whenever a party disagrees with the best available data, the party may finance the detailed engineering study needed to replace existing data with better data and submit to the Federal Emergency Management Agency.

- A) The base flood elevation for the floodplains of Mississippi River shall be as delineated on the one-hundred year flood profiles in the Flood Insurance Study of the City prepared by FEMA and dated May 1, 1979.
- B) The base 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.
- C) The base flood elevation for the floodplains of those parts of unincorporated Madison County that are within the extraterritorial jurisdiction of the City or that may be annexed into the City shall be as delineated on the one-hundred year flood profiles in the Flood Insurance Study of Madison County prepared by FEMA and dated April 15, 1982.

4-16.4 ENFORCEMENT & RETENTION OF RECORDS

The Administrator shall be responsible for the general administration and enforcement of this article. The duties required by this position shall include but are not limited to the following:

- A) Process development permits in accordance with this Article and ordinance;

- B) Ensure that all development in a floodway (or a floodplain with no delineated floodway) meets the damage prevention requirements of this Article;
- C) Ensure that the building protection requirements for all buildings subject to Section 4-16.6(B) are met and maintain a record of the “as-built” elevation of the lowest floor (including basement) or floodproof certificates;
- D) Assure that all subdivisions and annexations meet the requirements of Section 4-16.7;
- E) If a variance is requested, ensure that the requirements of Section 4-16.8 of this Article are met and maintain documentation of any variance granted;
- F) Inspect all development projects and take any and all actions necessary to ensure they comply with the provisions of this Article;
- G) Assure that applicants are aware of and obtain any and all other required local, state, and federal permits;
- H) Provide information and assistance to citizens upon request about permit procedures and floodplain construction techniques;
- I) Cooperate with State and Federal floodplain management agencies to improve base flood and floodway data and to improve the administration of this Article;
- J) Maintain for public inspection and furnish upon request base flood data, floodplain maps, copies of federal or state permit documents, and documentation of compliance for development activities subject to this Article.

4-16.5 DEVELOPMENT PERMIT REQUIREMENTS

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

- A) The application for a development permit shall be accompanied by the following:
 - 1) Drawings of the site, drawn to scale showing property line dimensions;
 - 2) Existing grade elevations and all proposed 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 4-16.6(B) of this Article.

B) Upon receipt of an application for a development permit, the Administrator shall compare the elevation of the site to the base flood elevation. Any development located on land that can be shown to have been higher than the base flood elevation as of the date of the site's first Flood Insurance Rate Map identifications is not located in the floodplain and therefore not subject to the requirements of this Article. The Administrator 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.

4-16.6 DEVELOPMENT GUIDELINES

4-16.6(A) Preventing Increased Flood Heights and Resulting Damages

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

A) Except as provided in Item 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) Barge fleeting facilities meeting the conditions of IDOT/DWR Statewide Permit No. 3;
- 2) Aerial utility crossings meeting the conditions of IDOT/DWR Statewide permit No. 4;
- 3) Minor boat docks meeting the conditions of IDOT/DWR Statewide Permit No. 5;
- 4) Minor, non-obstructive activities meeting the conditions of IDOT/DWR Statewide Permit No. 6;
- 5) Outfall structures and drainage ditch outlets meeting the conditions of IDOT/DWR Statewide Permit No. 7;
- 6) Underground pipeline and utility crossings meeting the conditions of IDOT/DWR Statewide Permit No. 8;
- 7) Bank stabilization projects meeting the conditions of IDOT/DWR Statewide Permit No. 9;
- 8) Accessory structures and additions to existing residential buildings meeting the conditions of IDOT/DWR Statewide permit No. 10;
- 9) Minor maintenance dredging activities meeting the conditions of IDOT/DWR Statewide permit No. 11;

10) Any development determined by IDOT/DWR to be located entirely in a flood fringe area.

Applications for the permits listed above can be obtained from the Planning & Zoning Administrator.

B) Other development activities not listed in (A) may be permitted only if:

1) A permit has been issued for the work by IDOT/DWR or written documentation is provided that an IDOT/DWR permit is not required;

2) Sufficient data has been provided to FEMA when necessary to approve a revision of the regulatory map and base flood elevation.

4-16.6(B) Protecting Buildings

In addition to the damage prevention requirements of Section 4-16.6(A), all buildings to be located in the floodplain shall be protected from flood damage below the FPE. This building protection requirements applies to the following situations:

A) Construction or placement of a new building valued at more than one-thousand dollars (\$1,000);

B) Substantial improvements made to an existing building;

C) Structural alterations made to an existing building that increase the floor area by more than 20%;

D) 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;

E) Installing a travel trailer on a site for more than one-hundred eighty days.

Residential or non-residential buildings can meet the building protection requirements by one of the following methods:

A) The building may be constructed on permanent land fill in accordance with the following:

1) The lowest floor (including the basement) shall be at or above the FPE;

2) The fill shall be placed in layers no greater than one foot before compaction and should extend at least ten feet beyond the foundation before sloping below the FPE;

- 3) The fill shall be protected against erosion and scour during flooding by vegetative cover, riprap, or other structural measure;
- 4) The fill shall be composed of rock or soil and not incorporate debris or refuse materials;
- 5) The fill shall not adversely affect the flow of surface drainage from or onto neighboring properties.

B) The building may be elevated in accordance with the following:

- 1) The building or improvements shall be elevated on stilts, piles, walls, or other foundation that is permanently open to flood waters;
- 2) 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;
- 3) If walls are used, all fully enclosed areas below the lowest floor must be used solely for parking or building access and shall be designed to allow entry and exit of flood waters. Designs must either be certified by a registered professional engineer or architect or have a minimum of two permanent openings no more than one foot above grade and providing a total net area of not less than one square inch for every one square foot of enclosed area subject to flooding;
- 4) The foundation and supporting members shall be anchored and aligned in relation to flood flows and adjoining structures so as to minimize exposure to hydrodynamic forces such as current, waves, ice and floating debris;
- 5) All structural components below the FPE shall be constructed of materials resistant to flood damage;
- 6) Water and sewer pipes, electrical and telephone lines, submersible pumps, and other service facilities may be located below the FPE provided they are waterproofed;
- 7) No area below the FPE shall be used for storage of items or materials.

Manufactured homes and travel trailers to be installed on a site for more than one-hundred eighty days shall be:

- A) Elevated to or above the FPE;
- B) 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 IL Adm. Code 870.

Non-residential buildings may be structurally floodproofed (in lieu of elevation) provided a registered professional engineer certifies that:

- A) Below the FPE, the structure and attendant utility facilities are watertight and capable of resisting the affects of the base flood;
- B) The building design accounts for flood velocities, duration, rate of rise, hydrostatic and hydrodynamic forces, the effects of buoyancy, and impacts from debris or ice;
- C) Floodproofing measures shall be 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.

4-16.7 SUBDIVISION AND OTHER DEVELOPMENT REQUIREMENTS

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

New subdivisions, manufactured home parks, recreational vehicle parks, annexation agreements, planned unit developments and additions to manufactured home parks and subdivisions shall meet the requirements of this Article. Any proposal for such development shall include the following data:

- A) The BFE and the boundary of the floodplain (where the BFE is not available from an existing study, the applicant shall be responsible for calculating the BFE);
- B) The boundary of the floodway when available;
- C) A signed statement by a registered professional engineer that the plat or plan accounts for changes in the drainage of surface waters in accordance with the Plat Act (765 Illinois Compiled Statutes 205/2).

Public health standards must be met for all floodplain development. In addition to the requirements of Section 4-16.6, the following standards apply:

- A) Critical facilities are prohibited from both the 100 year floodplain and the 500 year floodplain. Critical facilities include:
 - Structures or facilities that produce, use, or store highly volatile, flammable, explosive, toxic, and/or water-reactive materials;
 - Hospitals, nursing homes, and housing likely to contain occupants who may not be sufficiently mobile to avoid death or injury during a flood;
 - Police stations, fire stations, vehicle and equipment storage facilities, and emergency operations centers that are needed for flood response activities before, during, and after a flood; and
 - Public and private utility facilities that are vital to maintaining or restoring normal services to flooded areas before, during, and after a flood.

(Ord. 03-13, passed 11/3/03)

B) New and replacement sanitary sewer lines and on-site waste disposal systems may be permitted providing all manholes or other above ground openings located below the FPE are watertight.

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

4-16.8 VARIANCES

Whenever the standards of this Article place undue hardship on a specific development proposal, the applicant may apply to the Board of Zoning Appeals for a variance. The Board of Zoning Appeals shall review the applicant's request for a variance and may attach such conditions to granting of a variance as it deems necessary to further the intent of this Article.

No variance shall be granted unless the applicant demonstrates that:

- A) The development activity cannot be located outside the floodplain;
- B) The relief requested is the minimum necessary;
- C) There will be no additional threat to public health or safety or creation of a nuisance;
- D) There will be no additional public expense for flood protection, rescue, or relief operations, policing, or repairs to roads, utilities, or other public facilities;
- F) The applicant's circumstances are unique and do not establish a pattern inconsistent with the intent of the NFIP;
- G) The requirements for requesting a variance as listed in Article 12 have been met.

The Administrator shall notify an applicant in writing that a variance from the requirements of the building protection standards of Section 4-16.6(B) that would lessen the degree of protection to a building will:

- A) Result in increased premium rates for flood insurance up to amounts that may be as high as Twenty-five dollars (\$25.00) for One-hundred dollars (\$100.00) of insurance coverage;
- B) Increase the risks to life and property;
- C) Require that the applicant proceed with knowledge of these risks and that the applicant acknowledge in writing the assumption of the risk and liability.

Variations to the building protection requirements of Section 4-16.6(B) of this Article requested in connection with the reconstruction, repair or alteration of a site or building included on the

National Register of Historic Places or the Illinois Register of Historic Places may be granted using criteria more permissive than the requirements of Subsection 4-16.8 A-D.

4-16.9 DISCLAIMER OF LIABILITY

The degree of flood 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 reliance on this Article or any administrative decision made lawfully thereunder.

4-16.10 PENALTY

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

If such owner fails after ten days notice to correct the violation, the City may take action as outlined in Article 1.

The Administrator 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.

