

---

---

**VILLAGE OF ALSIP**  
**COOK COUNTY, ILLINOIS**

---

---

**ORDINANCE**  
**NUMBER 2019-09-3**

---

---

**AN ORDINANCE AMENDING CHAPTER 10, FLOOD  
DAMAGE PREVENTION, OF THE MUNICIPAL CODE  
OF THE VILLAGE OF ALSIP**

---

---

**JOHN D. RYAN, Mayor**  
**SUSAN M. PETZEL, Village Clerk**

**RICHARD S. DALZELL**  
**MICHAEL ZIELINSKI**  
**MONICA JUAREZ**  
**CHRISTINE L. McLAWHORN**  
**CHRISTOPHER W. MURPHY**  
**CATALINA NAVA-ESPARZA**  
**Trustees**

---

---

**ORDINANCE NO. 2019-09-3**

**AN ORDINANCE AMENDING CHAPTER 10, FLOOD  
DAMAGE PREVENTION, OF THE MUNICIPAL CODE  
OF THE VILLAGE OF ALSIP**

BE IT ORDAINED by the Mayor and Board of Trustees of the Village of Alsip, as follows:

Section 1. That the Municipal Code of Alsip be amended by changing Chapter 10, Flood Damage Prevention, to read as follows:

**CHAPTER 10 – FLOOD DAMAGE PREVENTION**

**Sec. 10-1. - Purpose.**

This chapter is enacted pursuant to the police powers granted to the village by 65 ILCS 5/1-2-1, 65 ILCS 5/11-12-12, 65 ILCS 5/11-30-2, 65 ILCS 5/11-30-8, and 65 ILCS 5/11-31-2. The purpose of this chapter is to maintain the village's eligibility in the National Flood Insurance Program; to minimize potential losses due to periodic flooding including loss of life, loss of property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare; and to preserve and enhance the quality of surface waters, conserve economic and natural values and provide for the wise utilization of water and related land resources. This chapter is adopted in order to accomplish the following specific purposes:

- (a) to meet the requirements of 615 ILCS 5/18(g) Rivers, Lakes and Streams Act;
- (b) to assure that new development does not increase the flood or drainage hazards to others, or creating unstable conditions susceptible to erosion;
- (c) to protect new buildings and major improvements to buildings from flood damage;
- (d) to protect human life and health from the hazards of flooding;
- (e) 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;
- (f) to make federally subsidized flood insurance available for property in the village by fulfilling the requirements of the National Flood Insurance Program;
- (g) to comply with the rules and regulations of the National Flood Insurance Program codified as 44 CFR 59-79, as amended;
- (h) to protect, conserve, and promote the orderly development of land and water resources; and,
- (i) to preserve the natural characteristics and functions of watercourses and floodplains in 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. 10-2. - Definitions.**

For the purpose of this chapter, and the interpretation and enforcement thereof, the following terms, phrases, words and their derivations shall have the meanings given herein, unless the context in which they are used shall indicate otherwise. When not inconsistent with the context, words used in the present tense include the future, words in the singular number include the plural number, and words in the plural number include the singular number. The words "shall" and "will" are mandatory and "may" is permissive. Words not defined shall be given their common and ordinary meaning.

*Accessory Structure* means a non-habitable building which is on the same parcel of property as the principal building to be insured and the use of which is incidental to the use of the principal building.

*Act* means an act in relation to the regulation of the rivers, lakes and streams of the State of Illinois (615 ILCS 5/5, *et seq.*).

*Applicant* means any person, firm, corporation or agency that applies for a floodplain development permit.

*Appropriate Uses* means only uses of the designated floodway that are permissible and will be considered for permit issuance. The only uses that will be allowed are as specified in Section 10-6(b).

*ASCE* means American Society of Civil Engineers.

*Base Flood* means the flood having a one-percent (1%) chance of being equaled or exceeded in any given year. The base flood is often referred to as the 100-year flood.

*Base Flood Elevation (BFE)* means the height in relation to the North American Vertical Datum (NAVD) of 1988 (or other datum, where specified) of the crest of the base flood. Application of the BFE at any location shall be as defined in Section 10-4.

*Basement* means any area of the building, including any sunken room or sunken portion of a room, having its floor below ground level (subgrade) on all sides.

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

*Channel* means any river, stream, creek, brook, branch, natural or artificial depression, ponded area, flowage, slough, ditch, conduit, culvert, gully, ravine, wash, or natural or man-made drainage way, which has a definite bed and banks or shoreline, in or into which surface or groundwater flows, either perennially or intermittently.

*Channel Modification* means an alteration of a channel by changing the physical dimensions or materials of its bed or banks. Channel modification includes damming, rip-rapping (or other armoring), widening, deepening, straightening, relocating, lining and significant removal of native vegetation from the bottom or banks. Channel modification does not include the clearing of dead or dying vegetation, debris, or trash from the channel. Channelization is a severe form of channel modification involving a significant

change in the channel cross-section and typically involving relocation of the existing channel (e.g., straightening).

*Compensatory Storage* means an artificially excavated, hydraulically equivalent volume of storage within the floodplain used to balance the loss of natural flood storage capacity when artificial fill or structures are placed within the floodplain. The uncompensated loss of natural floodplain storage can increase off-site floodwater elevations and flows.

*Conditional Approval of a Designated Floodway Map Change* means preconstruction approval by IDNR/OWR and FEMA of a proposed change to the floodway map. This preconstruction approval, pursuant to 17 Ill. Adm. Code §3708, gives assurances to the property owner that once an appropriate use is constructed according to permitted plans, the floodway map can be changed, as previously agreed, upon review and acceptance of as-built plans.

*Conditional Letter of Map Revision (CLOMR)* means a letter providing FEMA's comment on a proposed project that would, upon construction, affect the hydrologic or hydraulic characteristics of a flooding source and thus result in the modification of the existing floodway, the effective BFEs, or the SFHA.

*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.

*Dam* means all obstructions, wall embankments or barriers, together with their abutments and appurtenant works, if any, constructed for the purpose of storing or diverting water or creating a pool. Dams may also include weirs, restrictive culverts or impoundment Structures. Underground water storage tanks are not included.

*Delegated Community* means a community delegated state permitting authority for construction in the floodway under 17 Ill. Adm. Code §3708 by IDNR/OWR.

*Designated Floodway* means the channel, including on-stream lakes, and that portion of the floodplain adjacent to a stream or watercourse, generally depicted on the FEMA FIRM map, which is needed to store and convey the existing base flood discharge with no more than a 0.1 foot increase in stage due to the loss of flood conveyance or storage, and no more than a ten percent (10%) increase in velocities. The floodplains are those lands within the jurisdiction of the village that are subject to inundation by the base flood. The floodplains of the village are generally identified as such on the following map number 17031C and panels 0609J, 0628J, 0630J, 0637J, 0638J, and 0639J dated August 19, 2008 and panels 0617K and 0636K dated November 1, 2019, of the countywide FIRM for Cook County as prepared by the FEMA. The floodplains for those parts of unincorporated Cook County that are within the extraterritorial jurisdiction of the village or that may be annexed into the village and that are subject to inundation by the base flood. The floodplains are generally identified as such on the following map number 17031C and panels 0609J, 0616J, 0618J, and 0637J dated August 19, 2009 and panels 0619K and 0707K dated November 1, 2019, of the countywide FIRM for Cook County as prepared by the FEMA. To locate the designated floodway boundary on any site, the designated floodway boundary should be scaled off the FIRM map and located on a site plan, using reference marks common to both maps. Where interpretation is needed to determine the exact location of the designated floodway boundary, IDNR/OWR should be contacted for the interpretation.

*Development* means any man-made change to real estate, including: (a) construction, reconstruction, repair, or placement of a building or any addition to a building; (b) substantial improvement of an existing building; installing a manufactured home on a site, preparing a site for a manufactured home, or installing a

travel trailer or recreational vehicle on a site for more than 180 days in any calendar year. If a travel trailer or recreational vehicle is on site for more than 180 calendar days in any calendar year, it must be fully licensed and ready for highway use; (c) installing utilities, construction of roads, bridges, or similar projects; (d) demolition of a building, redevelopment of a site, clearing of land as an adjunct of construction; (e) construction or erection of levees, walls, fences, dams, culverts, or channel modification; (f) filling, dredging, grading, excavating, paving, drilling, mining or other non-agricultural alterations of the ground surface; (g) storage of materials including the placement of gas and liquid storage tanks, and any other activity that might change the direction, height, or velocity of flood or surface waters; or (h) any other activity of man that might change the direction, height, or velocity of flood or surface water, including extensive vegetation removal. Development does not include such activities as re-surfacing of pavement when there is no increase in elevation, or gardening, plowing, and similar agricultural practices that do not involve filling, grading, or construction of levees.

*Elevation Certificates* means a form published by FEMA that is used to certify the elevation to which a Building has been elevated.

*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 village's initial floodplain management regulations.

*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 the Federal Emergency Management Agency and its regulations at 44 C.F.R. 59-79, as amended.

*Flood* means a general and temporary condition of partial or complete inundation of normally dry land areas from overflow of inland or tidal waters, or from the unusual and rapid accumulation or runoff of surface waters from any source. Flood also includes the collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in a general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland or tidal waters.

*Flood Frequency* means a period of years, based on a statistical analysis, during which a flood of a stated magnitude may be expected to be equaled or exceeded.

*Flood Fringe* means that portion of the floodplain outside of the designated floodway.

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

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

*Floodplain* or *Special Flood Hazard Area (SFHA)* shall be used interchangeably and means any land area susceptible to being inundated by water from any source. A floodplain also includes those areas of known flooding as identified by the community. The floodplains are those lands within the jurisdiction of the village that are subject to inundation by the base flood. The floodplains of the village are generally identified as such on the following map number 17031C and panels 0609J, 0628J, 0630J, 0637J, 0638J, and 0639J dated August 19, 2008 and panels 0617K and 0636K dated November 1, 2019, of the countywide FIRM for Cook County as prepared by the FEMA. The floodplains of those parts of unincorporated Cook County that are within the extraterritorial jurisdiction of the village or that may be annexed into the village and that are subject to inundation by the base flood. The floodplains are generally identified as such on the following map number 17031C and panels 0609J, 0616J, 0618J, and 0637J dated August 19, 2008 and panels 0619K and 0707K dated November 1, 2019, of the countywide FIRM for Cook County as prepared by the FEMA.

*Floodproofing* means any combination of structural and non-structural additions, changes or adjustments to Buildings that reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, buildings 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 the designated floodway.

*Freeboard* means an increment of elevation added to the BFE 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 building that is: (a) 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; (b) certified or preliminarily determined by the Secretary of the Interior as contributing to the historic district or a district preliminarily determined by the Secretary of the Interior to qualify as a registered historic district; (c) individually listed on the inventory of historic places by the Illinois Historic Preservation Agency; or, (d) individually listed on a local inventory of historic places that has been certified by the Illinois Historic Preservation Agency.

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

*Letter of Map Amendment (LOMA)* means an official determination by FEMA that a specific building, area of land or a parcel of land, where there has not been any alteration of the topography since the date of the first NFIP map showing the property within the floodplain, was inadvertently included within the floodplain and that the building, area of land or a parcel of land is removed from the floodplain.

*Letter of Map Revision (LOMR)* means the letter that revises BFEs, floodplains or floodways as shown on an effective FIRM.

*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 building in violation of the applicable non-elevation design requirements of this chapter.

*Manufactured Home* means a building, transportable in one or more sections, which is built on a permanent chassis and is designated for use with or without a permanent foundation when attached to the required utilities. The term *Manufactured Home* does not include a recreational vehicle.

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

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

*New Manufactured Home Park or Subdivision* means a park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (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 village's initial floodplain management regulations.

*NAVD 88* means North American Vertical Datum of 1988. NAVD 88 shall supersede the National Geodetic Vertical Datum of 1929 (NGVD).

*Public Body of Water* means all open public streams and lakes capable of being navigated by watercraft, in whole or in part, for commercial uses and purposes, and all lakes, rivers, and streams which in their natural condition were capable of being improved and made navigable, or that are connected with or discharge their waters into navigable lakes or rivers within, or upon the borders of the State of Illinois, together with all bayous, sloughs, backwaters, and submerged lands that are open to the main channel or body of water directly accessible thereto, as identified in 17 Ill. Adm. Code §3704.

*Recreational Vehicle or Travel Trailer* means a vehicle which is: (a) built on a single chassis; (b) 400 square feet or less when measured at the largest horizontal projection, to include expandable room sections regardless of height; (c) designed to be self-propelled or permanently towable by a light duty truck; and (d) designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

*Regional Permits* means permits offered for pre-approved projects that are considered minor projects that are permissible per 17 Ill. Adm. Code §3708 for Northeastern Illinois designated floodways. A complete listing of the terms and conditions for specific project types can be obtained from the IDNR/OWR website.

*Registered Land Surveyor* means a land surveyor registered in the State of Illinois, under the Illinois Land Surveyors Act (225 ILCS 330/1, *et seq.*), as amended.

*Registered or Licensed Professional Engineer (P.E.)* means an engineer registered in the State of Illinois, under the Illinois Professional Engineering Practice Act (225 ILCS 325/1, *et seq.*), as amended.

*Repetitive Loss* means flood-related damages sustained by a building on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds twenty-five percent (25%) of the market value of the building before the damaged occurred.

*Retention/Detention Facility* means a retention facility stores storm water runoff without a gravity release. A detention facility provides for storage of storm water runoff and controlled release of this runoff during and after a flood or storm.

*Riverine Floodplain* means any floodplain or SFHA subject to flooding from a river, creek, intermittent stream, ditch, on-stream lake system or any other identified channel. This term does not include areas subject to flooding from lakes, ponding areas, areas of sheet flow, or other areas not subject to overbank flooding.

*Special Flood Hazard Area (SFHA)* means the floodplain.

*Start of Construction* means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition placement or other improvement, was within 180 days of the permit date and includes substantial improvement. The actual start means either the first placement of permanent construction of a building 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 the 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.

*Statewide Permits* are offered for pre-approved projects that are considered minor projects which are permissible per the 17 Ill. Adm. Code §3700. A complete listing of the statewide permits and permit requirements can be obtained from the IDNR/OWR website.

*Structure* means the results of a man-made change to the land constructed on or below the ground, including a building, as defined herein, any addition to a building; installing utilities, construction of roads or similar projects; construction or erection of levees, walls, fences, bridges or culverts; drilling, mining, filling, dredging, grading, excavating; and the storage of materials.

*Substantial Damage* means damage of any origin sustained by a building whereby the cumulative percentage of damage during the life of the building equals or exceeds fifty percent (50%) of the market value of the building 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 building 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 building before the start of construction of 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 building. This term includes buildings which have incurred repetitive loss or substantial damage, regardless of the actual work done. The term does not, however, include either: (a) any project for improvement of a building to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions, or (b) any alteration of an historic structure listed on the National Register of Historic Places or the Illinois Register of Historic Places, provided that the alteration will not preclude the building's continued designation as a historic structure.

*Transition Section* means the reaches of the stream or floodway where water flows from a narrow cross-section to a wide cross-section or vice versa.

**Sec. 10-3. – Duties of the building commissioner under this chapter.**



(a) *Determining Floodplain Designation.*

(1) Check all new development sites to determine whether they are in a floodplain using criteria listed in Section 10-4.

(2) If the site is in a floodplain, determine whether the site is in a floodway, flood fringe or in a floodplain for which a detailed study has not been conducted and which drains more than one (1) square mile.

(A) If the site is within a flood fringe, the building commissioner shall require that the minimum requirements of Section 10-5 be met.

(B) If the site is within a floodway, the building commissioner shall require that the minimum requirements of Section 10-6 be met.

(C) If the site is located within a floodplain for which no detailed study has been completed and approved, the building commissioner shall require that the minimum requirements of Section 10-7 be met.

(b) *Professional Engineer Review.*

(1) If the development site is within a floodway or in a floodplain for which a detailed study has not been conducted and which drains more than one square mile, the permit shall be referred to a professional engineer under the employ or contract of the village for review to ensure that the development meets Section 10-6 or Section 10-7.

(2) In the case of an appropriate use, the professional engineer shall state in writing that the development meets the requirements of Section 10-6.

(c) *Dam Safety Requirements.* Dams are classified according to their size and their hazard/damage potential in the event of failure. Permits for dams may be required from IDNR/OWR. The building commissioner shall contact IDNR/OWR to determine if a permit is required. If a permit is required, a permit application must be made to IDNR/OWR prior to the construction or major modification of jurisdictional dams.

(d) *Other Permit Requirements.* The building commissioner shall ensure any and all required federal, state and local permits are received prior to the issuance of a floodplain development permit, including, but not limited to, permits pertaining to the Clean Water Act, Public Water Supply, Endangered Species Act, Illinois Endangered and Species Protection Act.

(e) *Plan Review and Permit Issuance.*

(1) Ensure that all development activities, including new construction and substantial improvements, within the floodplains of the jurisdiction of the village meet the requirements of this chapter.

(2) Issue a floodplain development permit in accordance with the provisions of this chapter and other regulations of this community when the development meets the conditions of this chapter.

(3) Ensure that all development activities happen in a timely manner and any permit time extensions are issued per the requirements of Section 10-5(a), Section 10-6(a) and Section 10-7(a).

(f) *Inspection Review.*

(1) Inspect all development projects before, during and after construction to ensure proper elevation of the building and to ensure compliance with the provisions of this chapter.

(2) Schedule on an annual basis an inspection of the floodplain and document the results of the inspection.

(g) *Substantial Damage and Substantial Improvement Determinations.* Establish procedures for administering and documenting determinations of substantial improvement and substantial damage made pursuant to Section 10-8.

(1) Determine the market value or require the applicant to obtain an appraisal of the market value prepared by a qualified independent appraiser, of the building before the start of construction of the proposed work. In the case of repair, the market value of the building shall be the market value before the damage occurred and before any repairs are made.

(2) Compare the cost to perform the improvement, the cost to repair a damaged building to its pre-damaged condition, or the combined costs of improvements and repairs, if applicable, to the market value of the Building.

(3) Determine and document whether the proposed work constitutes substantial improvement or substantial damage.

(4) Notify the applicant if it is determined that the work constitutes substantial improvement or repair of substantial damage and that compliance with the flood resistant construction requirements of the village and this chapter is required.

(h) *Elevation and Floodproofing Certificates.* Maintain permit files including:

(1) An elevation certificate certifying the elevation of the lowest floor (including basement) of a residential or non-residential building subject to Section 10-8 of this chapter, and/or;

(2) The elevation to which a non-residential building has been flood-proofed, using a floodproofing certificate, for all buildings subject to Section 10-8 of this chapter.

(i) *Records for Public Inspection.* Maintain for public inspection and furnish upon request all permit records, including but not limited to base flood data, floodplain and designated floodway maps, copies of federal or state permit documents, variance documentation, soil compaction records, conditional letter of map revision, letter of map revision, letter of map amendment, as-built elevation, floodproofing certificates and elevation certificates for all buildings constructed subject to this chapter.

(j) *Floodway Permits.* For all development projects in a floodway, ensure that construction authorization has been granted by IDNR/OWR or a delegated community, or written documentation is provided stating that a permit is not required from IDNR/OWR in accordance with 615 ILCS 5/5, *et seq.* Floodway permit requirements are specified in Section 10-6 and Section 10-7.

(k) *Cooperation with Other Agencies.*

(1) Cooperate with state and federal floodplain management agencies to improve base flood and floodway data and to improve the administration of this chapter.

(2) Submit data to IDNR/OWR and FEMA for proposed revisions of a regulatory map within six (6) months whenever a modification of the floodplain may change the BFE or result in a change to the floodplain map.

(3) Submit reports as required for the NFIP.

(4) Notify FEMA of any proposed amendments to this chapter.

(l) *Promulgate Regulations.* Promulgate rules and regulations as necessary to administer and enforce the provisions of this chapter, subject however to the review and approval of IDNR/OWR and FEMA for any changes to this chapter.

(m) *Variances.* If a variance is to be granted, the building commissioner shall review the requirements of Section 10-10 to make sure they are met. In addition, the building commissioner shall complete all notifications requirements.

(n) *Enforcement.* In order to assure that property owners obtain permits as required in the chapter, the building commissioner may take any and all actions as outlined in Section 10-12.

**Sec. 10-4. – Base Flood Elevation.**

The standards set forth herein are based on the FIS for Cook County. If a BFE is not available for a particular site, then the protection standard shall be according to the best existing data available from federal, state or other sources. When a party disagrees with the best available data, they shall submit a detailed engineering study needed to replace existing data with better data and submit it to IDNR/OWR and FEMA for review and consideration prior to any development of the site.

(a) The BFE for the floodplains of the village shall be as delineated on the base flood profiles in the FIS of Cook County prepared by FEMA dated November 1, 2019 and such amendments to such study and maps as may be prepared from time to time.

(b) The BFE for the floodplains of those parts of unincorporated Cook County that are within the extraterritorial jurisdiction of the village or that may be annexed into the village shall be as delineated on the base flood profiles in the FIS of Cook County prepared by FEMA and dated November 1, 2019, and such amendments or revisions to such study and maps as may be prepared from time to time.

(c) The BFE for each floodplain delineated as an AH Zone or AO Zone shall be that elevation (or depth) delineated on the countywide FIRM of Cook County panels 0609J, 0616J, 0618J, 0628J, 0630J, 0637J, 0638J, and 0639J dated August 19, 2008 and panels 0617K, 0619K, 0636K and 707K dated November 1, 2019, and such amendments or revisions to such study and maps as may be prepared from time to time.

(d) The BFE for each of the remaining floodplains delineated as an A Zone on the countywide FIRM of Cook County panels 0609J, 0616J, 0618J, 0628J, 0630J, 0637J, 0638J, and 0639J dated August 19, 2008 and panels 0617K, 0619K, 0636K and 707K dated November 1, 2019 and shall be according to the best

existing data available from federal, state or other sources. Should no other data exist, an engineering study must be financed by the applicant to determine BFEs.

(1) When no BFE exists, the BFE for a riverine floodplain shall be determined from an accepted hydraulic model, based on current industry standards.

(2) The flood flows used in the hydraulic models shall be obtained from an accepted hydrologic model, based on current industry standards, or by techniques presented in various publications prepared by the United States Geological Survey for estimating peak flood discharges.

#### **Sec. 10-5. – Occupation and Use of Flood Fringe Areas.**

Development in and/or filling of the flood fringe will be permitted if protection is provided against the base flood by proper elevation, compliance with compensatory storage requirements, and other applicable provisions of this chapter. No use will be permitted that adversely affects the capacity of drainage facilities or systems. Developments located within the flood fringe shall meet the requirements of this Section, along with the requirements of Section 10-8.

(a) *Development Permit.*

(1) No person, firm, corporation, or governmental body shall commence any development in the floodplain without first obtaining a development permit from the building commissioner and IDNR/OWR.

(2) Application for a development permit shall be made on a form provided by the building commissioner.

(A) The application shall be accompanied by drawings of the site, drawn to scale, showing property line dimensions and legal description for the property and sealed by a professional engineer, licensed architect or registered land surveyor; existing grade elevations, using the NAVD 88, and all proposed changes in grade resulting from excavation or filling; the location and dimensions of all existing and proposed buildings and additions to buildings.

(B) For all proposed buildings, the elevation of the lowest floor (including basement) and lowest adjacent grade shall be shown on the submitted plans and the development will be subject to the requirements of Section 10-8.

(3) Upon receipt of a development permit application, the building commissioner shall compare the elevation of the site to the BFE.

(A) Any development located on land that can be shown to be higher than the BFE of the current FIRM and which has not been filled after the date of the site's first floodplain designation on a FIRM, is not in the floodplain and, therefore, not subject to the requirements of this chapter.

(B) Any development located on land shown to be below the BFE that is hydraulically connected to the floodplain, but not shown on the current FIRM, is subject to the provisions of this chapter.

- (C) The building commissioner 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 FIRM identification in the floodplain.

(4) The building commissioner shall be responsible for obtaining from the Applicant copies of all other federal, state, and local permits, approvals or waivers that may be required for this type of activity, as specified in Section 10-3(d). The building commissioner shall not issue a permit unless all other federal, state, and local permits have been obtained.

(5) A development permit or approval shall become invalid unless the actual start of construction for work authorized by such permit, is commenced within 180 days after its issuance, or if the work authorized is suspended or abandoned for a period of 180 days after the work commences. All permitted work shall be completed within twelve (12) months after the date of issuance of the permit or the permit shall expire. Time extensions, of not more than 180 days each, may be granted, in writing, by the building commissioner. Time extensions shall be granted only if the original permit is compliant with this chapter and the FIRM and FIS in effect at the time the extension is granted.

(b) *Preventing Increased Damages.*

(1) No development in the flood fringe shall create a threat to public health and safety.

(2) If fill is being used to elevate the site above the BFE, the applicant shall submit sufficient data and obtain a LOMR from FEMA for the purpose of removing the site from the floodplain.

(3) Whenever any portion of a floodplain is authorized for use, the volume of space which will be occupied by the authorized fill or structure below the BFE shall be compensated for and balanced by a hydraulically equivalent volume of excavation taken from below the BFE.

(4) The excavation volume shall be at least equal to 1.5 times the volume of storage lost due to the fill or Structure

(5) In the case of streams and watercourses, such excavation shall be made opposite or adjacent to the areas so filled or occupied.

(6) All floodplain storage lost below the existing ten percent (10%) annual chance flood elevation shall be replaced below the proposed ten percent (10%) annual chance flood elevation. All floodplain storage lost above the existing ten percent (10%) annual chance flood elevation shall be replaced above the proposed 10-percent (10%) annual chance flood elevation.

(7) All such excavations shall be constructed to drain freely and openly to the watercourse.

(c) *Construction of a Building under a LOMR Based on Fill.* A person who has obtained a LOMR based on fill, which removes a site in the floodplain due to the use of fill to elevate the site above the BFE, may apply for a permit from the village to construct the lowest floor of a building below the BFE in the floodplain. The building commissioner shall not issue such a permit unless the applicant has demonstrated that the building will be reasonable safe from flooding. The building commissioner shall

require a professional certification from a qualified design professional that indicates the land or buildings to be removed from the SFHA are reasonably safe from flooding, according to the criteria established in FEMA Technical Bulletin (TB) 10. Professional certification may come from a professional engineer, professional geologist, professional soil scientist, or other design professional qualified to make such evaluations. The building commissioner shall maintain records, including but not limited to, all correspondence, professional certification, existing and proposed grading, sump pump sizing, foundation plans, elevation certificates, compensatory storage calculations, soil testing and compaction data.

#### **Sec. 10-6. – Occupation and Use of Designated Floodways.**

This section applies to proposed development, redevelopment, site modification or building modification within a designated floodway. The designated floodway shall be as delineated on the countywide FIRM of Cook County, as defined in Section 10-2. Permits will only be issued for appropriate uses of the designated floodway of which periodic inundation will not pose a danger to the general health and welfare of the user or require the expenditure of public funds or the provisions of public resources or disaster relief services or result in increased flood stages due to the singular or cumulative loss of regulatory floodway storage or regulatory floodway conveyance or increase in flood velocities. All floodway modifications shall be the minimum necessary to accomplish the purpose of the project. The development shall also meet the requirements of Section 10-8. No permit from building commissioner shall be required if the project meets Regional Permit No. 3.

(a) *Development Permit.*

(1) No person, firm, corporation or governmental body not exempted by state law, shall commence any development in a floodway without first obtaining a development permit from the building commissioner and IDNR/OWR.

(2) Applications for a development permit for work in a floodway shall be made by submitting a completed application on the form furnished by the building commissioner. The application for a development permit for work in a floodway, shall as a minimum, include the following information:

- (A) Name and address of applicant;
- (B) Legal description of the property;
- (C) Site location map of the property, drawn to scale on the FIRM, indicating whether it is proposed to be in an incorporated or unincorporated area;
- (D) Name of stream or body of water affected;
- (E) Description of proposed activity;
- (F) Statement of purpose of proposed activity;
- (G) Anticipated dates of initiation and completion of activity;
- (H) Name and mailing address of the owner of the subject property if different from the applicant;
- (I) Signature of the applicant or the applicant's agent;

- (J) If the applicant is a corporation, the president or other authorized officer shall sign the application form;
- (K) If the applicant is a partnership, each partner shall sign the application form;
- (L) If the applicant is a land trust, the trust officer shall sign the name of the trustee by him (her) as trust officer. A disclosure affidavit shall be filed with the application, identifying each beneficiary of the trust by name and address and defining the respective interests therein;
- (M) Plans of the proposed activity shall be provided, which include, as a minimum:
  - (i) A vicinity map showing the site of the activity, name of the waterway, boundary lines, names of roads in the vicinity of the site, graphic or numerical scale, and north arrow;
  - (ii) A plan view of the project and engineering study reach showing existing and proposed conditions including principal dimensions of the building or work, elevations (NAVD 88), adjacent property lines and ownership, drainage and flood control easements, location of any channels and any existing or future access roads, distance between proposed activity and navigation channel (when the proposed construction is near a commercially navigable body of water), designated floodway limit, floodplain limit, specifications and dimensions of any proposed channel modifications, location and orientation of cross-sections, north arrow, and a graphic or numerical scale;
  - (iii) Cross-section views of the project and engineering study reach showing existing and proposed conditions including principal dimensions of the work, as shown in plan view, existing and proposed elevations, normal water elevation, ten percent (10%) annual chance flood elevation, BFE, and graphic or numerical scales (horizontal and vertical);
  - (iv) A seeding or stabilization plan for the disturbed areas; and,
  - (v) A copy of the FIRM, marked to reflect any proposed change in the designated floodway location;
- (N) Any and all other federal, state, and local permits or approval letters that may be required for this type of development;
- (O) Engineering calculations and supporting data shall be submitted showing that the proposed work will meet the permit criteria of Section 10-6(b);
- (P) If the designated floodway delineation or BFE will change due to the proposed project, the application will not be considered complete until IDNR/OWR has indicated conditional approval of the designated floodway map change. No buildings may be built until a LOMR has been approved by FEMA; and,

- (Q) The application for a building shall be accompanied by drawings of the site, drawn to scale showing property line dimensions and existing ground elevations and all changes in grade resulting from any proposed excavation or filling, and floodplain and floodway limits; sealed by professional engineer, licensed architect or registered land surveyor; the location and dimensions of all buildings and additions to buildings; and the elevation of the lowest floor (including basement) of all proposed buildings subject to the requirements of Section 10-8.

(3) A development permit or approval shall become invalid unless the start of construction, for work authorized by such permit, is commenced within 180 days after its issuance, or if the work authorized is suspended or abandoned for a period of 180 days after the work commences. All permitted work shall be completed within twelve (12) months after the date of issuance of the permit or the permit shall expire. Time extensions, of not more than 180 days each, may be granted, in writing, by building commissioner. Time extensions shall be granted only if the original permit is compliant with this chapter and the FIRM and FIS in effect at the time the extension is granted.

(4) The building commissioner shall be responsible for obtaining from the applicant copies of all other federal, state, and local permits and approvals that may be required for this type of activity.

- (A) The building commissioner shall not issue the development permit unless all required federal and state permits have been obtained.
- (B) A professional engineer under the employ or contract of the village shall review and approve applications reviewed under this Section.

(b) *Preventing Increased Damages and a List of Appropriate Uses.*

(1) The only development in a floodway allowed are appropriate uses that will not cause a rise in the BFE and will not create a damaging or potentially damaging increase in flood heights or velocity, be a threat to public health and safety and welfare, impair the natural hydrologic and hydraulic functions of the floodway or channel, or permanently impair existing water quality or aquatic habitat. Construction impacts shall be minimized by appropriate mitigation methods as set forth in this chapter. Only those appropriate uses listed in 17 Ill. Adm. Code §3708 will be allowed. The approved appropriate uses are as follows:

- (A) flood control structures, dikes, dams and other public works or private improvements relating to the control of drainage, flooding, erosion, or water quality or habitat for fish and wildlife;
- (B) structures or facilities relating to the use of, or requiring access to, the water or shoreline, such as pumping and treatment facilities, and facilities and improvements related to recreational boating, commercial shipping and other functionally water dependent uses;
- (C) storm and sanitary sewer relief outfalls;
- (D) underground and overhead utilities;



- (E) recreational facilities such as playing fields and trail systems, including any related fencing (at least 50 percent (50%) open when viewed from any one direction) built parallel to the direction of flood flows, and including open air pavilions and toilet facilities (4 stall maximum) that will not block flood flows nor reduce floodway storage;
- (F) detached garages, storage sheds, or other non-habitable accessory structures that will not block flood flows nor reduce floodway storage;
- (G) bridges, culverts, roadways, sidewalks, railways, runways and taxiways and any modification thereto;
- (H) parking lots built at or below existing grade where either:
  - (i) the depth of flooding during the base flood will not exceed 1.0 foot; or,
  - (ii) the applicant of a short-term recreational use facility parking lot formally agrees to restrict access during overbank flooding events and accepts liability for all damage caused by vehicular access during all overbank flooding events.
- (I) aircraft parking aprons built at or below ground elevation where the depth of flooding during the base flood will not exceed 1.0 foot;
- (J) designated floodway regrading, without fill, to create a positive non-erosive slope toward a watercourse;
- (K) floodproofing activities to protect previously existing lawful buildings including the construction of water tight window wells, elevating buildings, or construction of floodwalls around residential, commercial or industrial principal buildings where the outside toe of the floodwall shall be no more than ten (10) feet away from the exterior wall of the existing building, and, which are not considered substantial improvements to the building;
- (L) the replacement, reconstruction, or repair of a damaged building, provided that the outside dimensions are not increased, and if the building was damaged to fifty percent (50%) or more of the market value before the damage occurred, the building will be protected from flooding to the FFE; and
- (M) modifications to an existing building that would not increase the enclosed floor area of the building below the BFE, and which will not block flood flows including but not limited to, fireplaces, bay windows, decks, patios, and second story additions. If the building is improved to fifty percent (50%) or more of the market value before the modification occurred (i.e., a substantial improvement), the building will be protected from flooding to the FFE.

(2) Appropriate uses do not include the construction or placement of any new buildings, fill, building additions, buildings on stilts, excavation or channel modifications done to accommodate otherwise non-appropriate uses in the floodway, fencing (including landscaping or planting designed to act as a fence) and storage of materials except as specifically defined above as an appropriate use.

(3) Within the designated floodway, the construction of an appropriate use, will be considered permissible provided that the proposed project meets the following engineering and mitigation criteria and is so stated in writing with supporting plans, calculations and data by a professional engineer and provided that any building meets the protection requirements of Section 10-9:

(A) *Preservation of Flood Conveyance, so as Not to Increase Flood Stages Upstream.* For appropriate uses other than bridge or culvert crossings, on-stream structures or dams, all effective designated floodway conveyance lost due to the project will be replaced for all flood events up to and including the base flood. In calculating effective designated floodway conveyance, the following factors shall be taken into consideration:

(i) Designated floodway conveyance,  $K = (1.486/n)(AR^{2/3})$  where "n" is Manning's roughness factor, "A" is the effective flow area of the cross-section, and "R" is the ratio of the area to the wetted perimeter. (See Ven Te Chow, *Open Channel Hydraulics*, (McGraw-Hill, New York 1959)).

(ii) The same Manning's "n" value shall be used for both existing and proposed conditions unless a recorded maintenance agreement with a federal, state, or local unit of government can assure the proposed conditions will be maintained or the land cover is changing from a vegetative to a non-vegetative land cover.

(iii) Transition sections shall be provided and used in calculations of effective designated floodway conveyance. The following expansion and contraction ratios shall be used unless an applicant's engineer can prove to IDNR/OWR through engineering calculations or model tests that more abrupt transitions may be used with the same efficiency:

(a) When water is flowing from a narrow section to a wider section, the water should be assumed to expand no faster than at a rate of one foot horizontal for every four feet of the flooded stream's length.

(b) When water is flowing from a wide section to a narrow section, the water should be assumed to contract no faster than at a rate of one foot horizontal for every one foot of the flooded stream's length.

(c) When expanding or contracting flows in a vertical direction, a minimum of one-foot vertical transition for every ten feet of stream length shall be used.

- (d) Transition sections shall be provided between cross-sections with rapid expansions and contractions and when meeting the designated floodway delineation on adjacent properties.
  - (e) All cross-sections used in the calculations shall be located perpendicular to flood flows.
- (B) *Preservation of Floodway Storage so as Not to Increase Downstream Flooding.*
  - (i) Compensatory storage shall be provided for any designated floodway storage lost due to the proposed work from the volume of fill or structures placed and the impact of any related flood control projects.
  - (ii) Compensatory storage for fill or structures shall be equal to 1.5 times the volume of floodplain storage lost.
  - (iii) Artificially created storage lost due to a reduction in head loss behind a bridge shall not be required to be replaced.
  - (iv) The compensatory designated floodway storage shall be placed between the proposed normal water elevation and the proposed BFE. All designated floodway storage lost below the existing ten percent (10%) annual chance flood elevation shall be replaced below the proposed ten percent (10%) annual chance flood elevation. All designated floodway storage lost above the existing ten percent (10%) annual chance flood elevation shall be replaced above the proposed ten percent (10%) annual chance flood elevation. All such excavations shall be constructed to drain freely and openly to the watercourse.
  - (v) If the compensatory storage will not be placed at the location of the proposed construction, the applicant's engineer shall demonstrate through a determination of flood discharges and water surface elevations that the compensatory storage is hydraulically equivalent.
  - (vi) There shall be no reduction in floodway surface area, as a result of a floodway modification, unless such modification is necessary to reduce flooding at an existing structure.
- (C) *Preservation of Floodway Velocities so as Not to Increase Stream Erosion or Flood Heights.*
  - (i) For all appropriate uses, except bridges or culverts or on-stream structures, the proposed work will not result in an increase in the average channel or designated floodway velocities or stage for all flood events up to and including the base flood event.
  - (ii) In the case of bridges or culverts or on-stream structures built for the purpose of backing up water in the stream during normal or flood flows, velocities may be increased at the structure site if scour, erosion and

sedimentation will be avoided by the use of rip-rap or other design measures.

(D) *Construction of New Bridges or Culvert Crossings and Roadway Approaches.*

(i) The proposed structure shall not result in an increase of upstream flood stages greater than 0.1 foot when compared to the existing conditions for all flood events up to and including the base flood event; or the upstream flood stage increases will be contained within the channel banks (or within existing vertical extensions of the Channel banks) such as within the design protection grade of existing levees or floodwalls or within recorded flood easements.

(ii) If the proposed construction will increase upstream flood stages greater than 0.1 feet, the developer must contact IDNR/OWR to obtain a permit for a dam or waiver.

(a) The engineering analysis of upstream flood stages must be calculated using the flood study flows, and corresponding flood elevations for tailwater conditions for the flood study specified in Section 10-4. Bridges and culverts must be analyzed using any commonly accepted FEMA approved hydraulic models.

(b) Lost floodway storage must be compensated for per Section 10-6(b)(3)(B).

(c) Velocity increases must be mitigated per Section 10-6(b)(3)(C).

(d) If the crossing is proposed over a public body of water that is used for recreational or commercial navigation, an IDNR/OWR permit must be received.

(e) The hydraulic analysis for the backwater caused by the bridge showing the existing condition and proposed regulatory profile must be submitted to IDNR/OWR for concurrence that a CLOMR is not required by Section 10-6(b).

(f) All excavations for the construction of the crossing shall be designed per Section 10-6(b)(3)(G).

(E) *Reconstruction or Modification of Existing Bridges, Culverts, and Approach Roads.*

(i) The bridge or culvert and roadway approach reconstruction or modification shall be constructed with no more than 0.1-foot increase in backwater over the existing flood profile for all flood frequencies up to and

including the base flood event, if the existing Structure is not a source of flood damage.

(ii) If the existing bridge or culvert and roadway approach is a source of flood damage to structures in the upstream floodplain, the applicant's engineer shall evaluate the feasibility of redesigning the existing bridge or culvert and roadway approach to reduce the existing backwater, taking into consideration the effects on flood stages on upstream and downstream properties.

(iii) The determination as to whether or not the existing crossing is a source of flood damage and should be redesigned must be prepared in accordance with 17 Ill. Adm. Code §3708 and submitted to IDNR/OWR for review and concurrence before a permit is issued.

(F) *On-Stream Structures Built for the Purpose of Backing Up Water.*

(i) Any increase in upstream flood stages greater than 0.0 foot when compared to the existing conditions, for all flood events up to and including the base flood event shall be contained within the channel banks (or within existing vertical extensions of the channel banks) such as within the design protection grade of existing levees or floodwalls or within recorded flood easements.

(ii) A permit or letter indicating a permit is not required must be obtained from IDNR/OWR for any structure built for the purpose of backing up water in the stream during normal or flood flow.

(iii) All dams and impoundment structures shall meet the permitting requirements of 17 Ill. Adm. Code §3702. If the proposed activity involves a modification of the channel or floodway to accommodate an impoundment, it shall be demonstrated that:

- (a) the impoundment is determined to be in the public interest by providing flood control, public recreation, or regional storm water detention;
- (b) the impoundment will not prevent the migration of indigenous fish species, which require access to upstream areas as part of their life cycle, such as for spawning;
- (c) the impoundment will not cause or contribute to degraded water quality or habitat conditions. Impoundment design should include gradual bank slopes, appropriate bank stabilization measures and a pre-sedimentation basin;
- (d) a non-point source control plan has been implemented in the upstream watershed to control the effects of sediment runoff as well as minimize the input of nutrients, oil and grease, metals, and other pollutants. If there is more than one municipality in the upstream watershed, the

municipality in which the impoundment is constructed should coordinate with upstream municipalities to ensure comprehensive watershed control; and,

- (e) the project otherwise complies with the requirements of Section 10-6.

(G) *Excavation in the Floodway.*

(i) When excavation is proposed in the design of bridges and culvert openings, including the modifications to and replacement of existing bridge and culvert structures, or to compensate for lost conveyance or other appropriate uses, transition sections shall be provided for the excavation.

(ii) The following expansion and contraction ratios shall be used unless an applicant's engineer can prove to IDNR/OWR through engineering calculations or model tests that more abrupt transitions may be used with the same efficiency:

- (a) When water is flowing from a narrow section to a wider section, the water should be assumed to expand no faster than at a rate of one foot horizontal for every four feet of the flooded stream's length; and
- (b) When water is flowing from a wide section to a narrow section, the water should be assumed to contract no faster than at a rate of one foot horizontal for every one foot of the flooded stream's length; and
- (c) When expanding or contracting flows in a vertical direction, a minimum of one-foot vertical transition for every ten feet of stream length shall be used; and
- (d) Erosion/scour protection shall be provided inland upstream and downstream of the transition sections.

(H) *General Criteria for Analysis of Flood Elevations.*

(i) The flood profiles, flows and floodway data in the designated floodway study, referenced in Section 10-4, must be used for analysis of the base conditions. If the study data appears to be in error or conditions have changed, IDNR/OWR shall be contacted for approval and concurrence on the appropriate base conditions data to use.

(ii) If the floodway elevation at the site of the proposed construction is affected by backwater from a downstream receiving stream with a larger drainage area, the proposed construction shall be shown to meet:

- (a) the requirements of this section for the BFEs of the designated floodway conditions; and

- (b) conditions with the receiving stream at normal water elevations.

- (iii) If the applicant learns from IDNR/OWR, local governments, or a private owner that a downstream restrictive bridge or culvert is scheduled to be removed, reconstructed, modified, or a public flood control project is scheduled to be built, removed, constructed or modified within the next five years, the proposed construction shall be analyzed and shown to meet the requirements of this section for both the existing conditions and the expected flood profile conditions when the bridge, culvert or flood control project is built.

(I) *Conditional Letter of Map Revision.*

- (i) If the appropriate use would result in a change in the designated floodway location or the BFE, the applicant shall submit to IDNR/OWR and FEMA all information, calculations and documents necessary to be issued a conditional designated floodway map revision and receive from IDNR/OWR a conditional concurrence of the designated floodway change before a permit is issued.

- (ii) The final designated floodway map will not be changed by FEMA until as-built plans or record drawings of initial filling, grading, dredging, or excavating activities are submitted and accepted by FEMA and IDNR/OWR. All field surveys shall be conducted under the supervision of a professional engineer or registered land surveyor and shall be sealed. All required engineering analyses shall be conducted under the supervision of a professional engineer, or in the case of a federal project, by the federal agency and shall be so sealed or stated.

- (iii) In the case of non-government projects, the municipality in incorporated areas and the county in unincorporated areas shall concur with the proposed conditional designated floodway map revision before IDNR/OWR approval can be given.

- (iv) No filling, grading, dredging or excavating shall take place until a conditional approval is issued.

- (v) After initial filling, grading, dredging or excavating, no activities shall take place until a final LOMR is issued by FEMA with concurrence from IDNR/OWR.

(J) *Professional Engineer's Supervision.* All engineering analyses shall be performed by or under the supervision of a professional engineer.

(K) After receipt of conditional approval of the designated floodway change and issuance of a permit and a conditional letter of map revision, construction as necessary to change the floodway designation may proceed but no buildings or structures or other construction that is not an appropriate use may be placed in that area until the designated floodway map is changed and a final letter of map revision is received. The designated

floodway map will be revised upon acceptance and concurrence by IDNR/OWR and FEMA of the as-built plans.

(4) Permits for Dams.

- (A) Any work involving the construction, modification or removal of a dam shall obtain an IDNR/OWR permit prior to the start of dam construction.
- (B) If the building commissioner finds that a dam does not have an IDNR/OWR permit, the building commissioner shall immediately notify the IDNR/OWR Bartlett office.
- (C) If building commissioner the finds a dam which is believed to be in unsafe condition, the building commissioner shall immediately notify the owner of the dam, the IDNR/OWR Bartlett office, and the Illinois Emergency Management Agency.

(5) Activities That Do Not Require a Registered Professional Engineer's Review. Regional Permit No. 3, which authorizes, for example, underground and overhead utilities, storm and sanitary sewer outfalls, sidewalks, patios, athletic fields, playground equipment and streambank protection activities; may be permitted without a professional engineer's review. Such activities shall still meet the other requirements of this chapter, including the mitigation requirements.

(6) Development Activities in Delegated Communities Requiring State Review. As specified in 17 Ill. Adm. Code §3708, the following shall not be delegated and shall be subject to IDNR/OWR review and permits:

- (A) Permits issued to organizations that are exempt from the village's permitting authority.
- (B) IDNR/OWR projects, dams, and all other state, federal or local unit of government projects, including projects of the municipalities and counties.
- (C) Construction and other activities in public bodies of water pursuant to 17 Ill. Adm. Code §3704.
- (D) An engineer's determination that an existing bridge or culvert crossing is not a source of flood damage and the analysis indicating the proposed flood profile, pursuant to Section 10-6(b)(3)(E).
- (E) An engineer's determination that a proposed new bridge, affected by backwater from a downstream receiving stream, may be built with a smaller opening pursuant to Section 10-6(b)(3)(D).
- (F) An analysis of alternative transition sections and hydraulically equivalent storage pursuant to Section 10-6(b)(3)(subsections (A), (B), and (H)).
- (G) Projects which revise or establish the floodway and/or flood profiles.

**Sec. 10-7. – Occupation and Use of Floodplain Areas where Floodways are not Identified.**



In floodplains, (including AE, AH, AO and Unnumbered A Zones) where no floodways have been identified and no BFEs have been established by FEMA, and draining more than a square mile, no development shall be permitted unless the cumulative effect of the proposals, when combined with all other existing and anticipated uses and Structures, shall not significantly impede or increase the flow and passage of the floodwaters nor significantly increase the BFE.

(a) *Development Permit.*

(1) No person, firm, corporation, or governmental body, shall commence any development in a floodplain without first obtaining a development permit from the building commissioner and IDNR/OWR.

(2) Application for a development permit shall be made on a form provided by the building commissioner.

(3) The application shall be accompanied by drawings of the site, drawn to scale showing property line dimensions; and existing grade elevations and all changes in grade resulting from excavation or filling, sealed by a professional engineer, licensed architect or registered land surveyor; the location and dimensions of all buildings and additions to buildings; and the elevations of the lowest floor (including basement) of all proposed buildings subject to the requirements of Section 10-8.

(4) The application for a development permit shall also include the following information:

- (A) A detailed description of the proposed activity, its purpose, a and intended use;
- (B) Site location (including legal description) of the property, drawn to scale, on the FIRM, indicating whether it is proposed to be in an incorporated or unincorporated area;
- (C) Anticipated dates of initiation and completion of activity;
- (D) Plans of the proposed activity, which shall include at a minimum:
  - (i) A vicinity map showing the site of the activity, name of the waterway, boundary lines, names of roads in the vicinity of the site, graphic or numerical scale, and north arrow;
  - (ii) A plan view of the project and engineering study reach showing existing and proposed conditions including principal dimensions of the structure or work, elevations, using the NAVD 88, adjacent property lines and ownership, drainage and flood control easements, distance between proposed activity and navigation channel (when the proposed construction is in or near a commercially navigable body of water), floodplain limit, location and orientation of cross-sections, north arrow, and a graphical or numerical scale;
  - (iii) Cross-section views of the project perpendicular to the flow of floodwater and engineering study reach showing existing and proposed

conditions including principal dimensions of the work as shown in plan view, existing and proposed elevations, normal water elevation, ten percent (10%) annual chance flood elevation, BFE, and graphical or numerical scales (horizontal and vertical); and

- (iv) A seeding or stabilization plan for the disturbed areas.
  - (E) Engineering calculations and supporting data shall be submitted showing that the proposed work will meet the criteria of Section 10-7(b).
  - (F) Any and all other federal, state, and local permits or approvals that may be required for this type of development.
- (5) Based on the best available existing data according to federal, state or other sources, the building commissioner shall compare the elevation of the site to the BFE.
- (A) Should no BFE information exist for the site, the developer's engineer shall calculate the BFE according to Section 10-4(d).
  - (B) Any development located on land that can be shown to have been higher than the BFE prior to the current FIRM's floodplain identification, is not in the floodplain and, therefore, not subject to the requirements of this chapter.
  - (C) The building commissioner 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 current FIRM's floodplain identification.
  - (D) The building commissioner shall be responsible for obtaining from the Applicant copies of all other federal, state, and local permits, approvals or waivers that may be required for this type of activity. The building commissioner shall not issue the development permit unless all required federal, state, and local permits have been obtained.
- (6) A development permit or approval shall become invalid unless the start of construction, for work authorized by such permit, is commenced within 180 days after its issuance, or if the work authorized is suspended or abandoned for a period of 180 days after the work commences. All permitted work shall be completed within twelve (12) months after the date of issuance of the permit or the permit shall expire. Time extensions, of not more than 180 days each, may be granted, in writing, by the building commissioner. Time extensions shall be granted only if the original permit is compliant with this chapter and the FIRM and FIS in effect at the time the extension is granted.
- (b) *Preventing Increased Damages.*
- (1) No development in the floodplain, where a floodway has not been determined, shall create a damaging or potentially damaging increase in flood heights or velocity or threat to public health, safety and welfare or impair the natural hydrologic and hydraulic functions of the floodway or channel or impair existing water quality or aquatic habitat. Construction impacts shall be minimized by appropriate mitigation methods as called for in this chapter.

(2) Within all riverine floodplains where the floodway has not been determined, the following standards shall apply:

- (A) The developer shall have a professional engineer state in writing and show through supporting plans, calculations, and data that the project meets the engineering requirements of Section 10-6(b)(3)(A) through Section 10-6(b)(3)(I) for the entire floodplain as calculated under the provisions of Section 10-4(d).
- (B) As an alternative, the developer should have an engineering study performed to determine a floodway and submit that engineering study to IDNR/OWR and FEMA for acceptance as a designated floodway.
- (C) Upon acceptance of the floodway by IDNR/OWR and FEMA, the developer shall then demonstrate that the project meets the requirements of Section 10-6 for the designated floodway. The floodway shall be defined according to the definition in Section 10-2.
- (D) A development permit shall not be issued unless the applicant first obtains a IDNR/OWR permit or a determination has been made that an IDNR/OWR permit is not required.
- (E) Permits for Dams:
  - (i) Any work involving the construction, modification or removal of a dam shall obtain an IDNR/OWR permit prior to the start of dam construction.
  - (ii) If the building commissioner finds a dam that does not have an IDNR/OWR permit, the building commissioner shall immediately notify the IDNR/OWR Bartlett office.
  - (iii) If the building commissioner finds a dam which is believed to be in unsafe condition, the building commissioner shall immediately notify the owner of the dam, the IDNR/OWR Bartlett office, and the Illinois Emergency Management Agency.

(3) The following activities may be permitted without a professional engineer's review or calculation of BFE and designated floodway. Such activities shall still meet the other requirements of this chapter:

- (A) Bridge and culvert crossings of streams in rural areas meeting conditions of IDNR/OWR Statewide Permit No. 2;
- (B) Barge fleeting facilities meeting conditions of IDNR/OWR Statewide Permit No. 3;
- (C) Aerial utility crossings meeting conditions of IDNR/OWR Statewide Permit No. 4;

- (D) Minor boat docks meeting conditions of IDNR/OWR Statewide Permit No. 5;
  - (E) Minor, non-obstructive activities meeting conditions of IDNR/OWR Statewide Permit No. 6; activities (not involving fill or positive change in grade) are covered by this permit;
  - (F) Outfall structures and drainage ditch outlets meeting conditions of IDNR/OWR Statewide Permit No. 7;
  - (G) Underground pipeline and utility crossings meeting the conditions of IDNR/OWR Statewide Permit No. 8;
  - (H) Bank stabilization projects meeting the conditions of IDNR/OWR Statewide Permit No. 9;
  - (I) Accessory structures and additions to existing residential buildings meeting the conditions of IDNR/OWR Statewide Permit No. 10;
  - (J) Minor maintenance dredging activities meeting conditions of DNR/OWR Statewide Permit No. 11;
  - (K) Bridge and culvert replacement structures and bridge widenings meeting conditions of IDNR/OWR Statewide Permit No. 12;
  - (L) Temporary construction activities meeting conditions of IDNR/OWR Statewide Permit No. 13;
  - (M) Special uses of public waters meeting conditions of IDNR/OWR Statewide Permit No. 14; and
  - (N) Any development determined by IDNR/OWR to be located entirely within a flood fringe area shall be exempt from state floodway permit requirements.
- (4) The flood carrying capacity of any altered or relocated watercourse shall be maintained.
- (5) Compensatory Storage.
- (A) Whenever any portion of a floodplain is authorized for use, the volume of space which will be occupied by the authorized fill or structure below the BFE shall be compensated for and balanced by a hydraulically equivalent volume of excavation taken from below the BFE.
  - (B) The excavation volume shall be at least equal to 1.50 times the volume of storage lost due to the fill or structure.
  - (C) In the case of streams and watercourses, such excavation shall be made opposite or adjacent to the areas so filled or occupied.

- (D) All floodplain storage lost below the existing 10 percent (10%) annual chance flood elevation shall be replaced below the proposed 10 percent (10%) annual chance flood elevation. All floodplain storage lost above the existing 110-percent annual chance flood elevation shall be replaced above the proposed 10 percent (10%) annual chance flood elevation. All such excavations shall be constructed to drain freely and openly to the watercourse.

**Sec. 10-8. – Permitting Requirements Applicable to All Floodplain Areas.**

In addition to the requirements found in Section 10-5, Section 10-6, and Section 10-7 for development in flood fringes, designated floodways, and floodplains where no floodways have been identified, the following requirements shall be met.

(a) *Public Health and Other Standards.*

(1) No developments in the floodplain shall include locating or storing chemicals, explosives, buoyant materials, animal wastes, fertilizers, flammable liquids, pollutants, or other hazardous or toxic materials below the FPE 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 10-8(c).

(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 floodwaters into the systems and discharges from the systems into floodwaters.

(4) New and replacement water supply systems, wells, 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. 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.

(5) All other activities, defined as development, such as pools, fences, filling, paving, etc., shall be designed so as not to alter flood flows or increase potential flood damages.

(b) *Carrying Capacity and Notification of Adjacent Communities.*

(1) For all projects involving channel modification, fill, or stream maintenance (including levees), the flood carrying capacity of the watercourse shall be maintained.

(2) In addition, the village shall notify adjacent communities in writing 30-days prior to the issuance of a permit for the alteration or relocation of the watercourse.

(c) *Protecting Buildings.*

(1) In addition to the damage prevention requirements in Section 10-5(b) and Section 10-6(b) of this chapter, all buildings located within a floodplain, shall be protected from flood damage below the FPE. This building protection criteria applies to the following situations:

- (A) New 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.
- (B) Substantial improvements, including any combination of alteration, repair, rehabilitation, reconstruction, addition, or other improvements made to an existing building that equal or exceed the market value by fifty percent (50%), or that increase the floor area by more than twenty percent (20%). Alteration shall be figured during the life of the Building. If substantially improved, the existing building and the addition must meet the flood protection standards of this section.
- (C) Any repairs made to a substantially damaged building. Substantial damage shall be figured cumulatively during the life of the Building by comparing the cost to repair the building to its pre-damage condition with the market value of the building immediately prior to the damage, for each event in which the building sustains damage, and adding the percentages of damage for each event. If substantially damaged, the entire building must meet the flood protection standards of this section.
- (D) Installing a manufactured home on a new site or a manufactured home on an existing site. The building protection requirements do not apply when returning a manufactured home to the same site it lawfully occupied before it was removed to avoid flood damage).
- (E) Installing a travel trailer or recreational vehicle on a site for more than 180 days in any calendar year; and
- (F) Repetitive loss to an existing building as defined in Section 10-2.

(2) The lowest floor (including basement) of new construction of residential buildings, and substantially improved residential buildings, must be elevated to the FPE, subject to the more specific additional requirements in Section 10-8(c)(2)(A) through Section 10-8(c)(2)(C) below.

- (A) If fill, including grading to redistribute onsite material to alter existing topography, is used as a means of elevation:
  - (i) The lowest floor (including basement) shall be at or above the FPE.
  - (ii) The fill shall be placed in layers no greater than six inches before compaction and must extend at least ten (10) feet beyond the foundation before sloping below the FPE.
  - (iii) The top of the fill shall be above the FPE. However, the ten (10) foot minimum may be waived if a structural engineer certifies an

alternative method to protect the building from damages due to hydrostatic pressures.

(iv) The fill shall be protected against erosion and scour during flooding by vegetative cover, riprap, or other structural measure.

(v) The fill shall be composed of clean rock or soil and not include debris or refuse material.

(vi) The fill shall not adversely affect the flow of surface drainage from or onto neighboring properties.

(B) If the building's lowest floor is elevated above ground level with an enclosed or unenclosed area below the lowest floor:

(i) The building shall be elevated on piles, walls, columns, crawlspace, or other foundation that is permanently open to floodwaters.

(ii) All enclosed areas below the FPE shall provide for equalization of hydrostatic pressures by allowing the automatic entry and exit of floodwaters. Each wall must have a minimum of one (1) permanent opening that is below the BFE and no more than one (1) foot above finished grade. 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 BFE, or the design must be certified by a professional engineer as providing the equivalent performance in accordance with accepted standards of practice. Refer to FEMA TB1, Openings in Foundation Walls and Walls of Enclosures, for additional guidance.

(iii) All electrical, heating, ventilating, plumbing, and air conditioning equipment and utility meters shall be located at or above the FPE.

(iv) The building, foundation, and supporting members shall be adequately anchored to prevent flotation, collapse, or lateral movement of the building resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy, and be designed so as to minimize exposure to current, waves, ice, and floating debris.

(v) All building components below the FPE shall be constructed of materials resistant to flood damage.

(vi) Water and sewer pipes, electrical and telephone lines, submersible pumps, and other service facilities may be located below the FPE provided they are waterproofed.

(vii) The area below the FPE shall be used solely for parking or building access and not later modified or occupied as habitable space.

(C) If the floor of any area of a Building below the lowest floor is proposed to be below grade on all sides, typical for crawlspace construction, the building shall meet the requirements of this chapter and FEMA TB 11 Crawlspace Construction for Buildings Located in Special Flood Hazard Areas. The building, while NFIP compliant, will be considered to have a basement for NFIP insurance purposes.

(i) The building shall be designed and adequately anchored to resist flotation, collapse, and lateral movement of the building resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.

(ii) All enclosed areas below the FPE shall provide for equalization of hydrostatic pressures by allowing the automatic entry and exit of floodwaters. Each wall must have a minimum of one (1) permanent opening that is below the BFE and no more than one (1) foot above finished grade. 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 BFE, or the design must be certified by a professional engineer, as providing the equivalent performance in accordance with accepted standards of practice. Refer to FEMA TB 1, Openings in Foundation Walls and Walls of Enclosures, for additional guidance.

(iii) Per FEMA TB 11, the crawlspace shall be designed so that:

(a) The interior grade of the crawlspace floor below the FPE must not be more than two (2) feet below the lowest adjacent grade.

(b) 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.

(c) 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.

(d) The velocity of floodwater at the site shall not exceed 5 feet per second.

(D) Portions of the building below the FPE must be constructed with materials resistant to flood damage.

(E) Utility systems within the crawlspace must be elevated above the FPE.

(3) The lowest floor (including basement) of new construction of nonresidential buildings, and substantial improvement of nonresidential buildings, must either (1) be elevated to or above the FPE, subject to the more specific additional requirements of Section 10-8(c)(2)(A) through Section 10-8(c)(2)(C) above; or (2) be structurally dry-floodproofed (in lieu of elevation), provided a professional engineer or architect submits a FEMA floodproofing



certificate, documenting that the professional engineer or architect developed and/or reviewed the structural design, specifications, and plans for construction, and that the engineer or architect certifies that the design and methods of construction are in accordance with accepted standards of practice for meeting the requirements of ASCE 24-14 and the requirements listed below:

- (A) Below the FPE, the building and attendant utility and sanitary facilities are watertight with walls substantially impermeable to the passage of water and structural components capable of resisting hydrostatic and hydraulic loads and the effects of buoyancy.
  - (B) The building design accounts for flood velocities, duration, rate of rise, hydrostatic and hydrodynamic forces, the effects of buoyancy, and impact from debris and ice.
  - (C) Floodproofing measures will be incorporated into the building design and operable without human intervention and without an outside source of electricity.
  - (D) The building, utility, and sanitary facilities' design and construction will prevent the effect of sewer backup into the building.
  - (E) Levees, berms, floodwalls and similar works are not considered floodproofing for the purpose of this chapter.
- (4) All placement of manufactured homes and or travel trailers, to be permanently installed on site for more than 180 days in any calendar year shall be:
- (A) Elevated to or above the FPE using a support and anchoring system, designed by a professional engineer pursuant to 77 Ill. Adm. Code §870.110.
  - (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 Ill. Adm. Code §870.220
- (5) Travel trailers and recreational vehicles, on site for more than 180 days in any calendar year shall meet the elevation requirement and anchoring requirements of Section 10-8(c)(4) unless the following conditions are met:
- (A) The vehicle must be either self-propelled or towable by a light duty truck.
  - (B) The vehicle must not be attached to any permanent additions or external Structures, such as decks and porches.
  - (C) The vehicle must be designed solely for recreation, camping, travel, or seasonal use rather than as a permanent dwelling.
  - (D) The vehicles having a total area not exceeding four hundred (400) square feet measured when all horizontal projections are fully expanded.

- (E) The vehicle's wheels must remain on axles and have inflated tires.
- (F) Any air conditioning units must be attached to the frame so as to be safe for movement out of the floodplain.
- (G) The vehicle must be attached to a site only by quick disconnect type utilities and security devices. Utility connections include, but are not limited to, propane tanks, electrical and sewage.
- (H) The vehicle must be licensed and titled as a recreational vehicle or park model, and 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 use of the jacks/hitch jack.

(6) Garages, sheds or other minor accessory structures constructed ancillary to an existing residential use may be constructed with the lowest floor below the FPE provided the following conditions are met:

- (A) The building must be not be constructed and used for habitation, must not include areas intended or used for living, sleeping, eating, or cooking, and must not include bathrooms, toilet rooms, or shower rooms.
- (B) All areas below the BFE shall be constructed with flood-resistant materials.
- (C) The building must be used only for the storage of vehicles and tools and cannot be modified later into another use.
- (D) The building shall be located outside of the designated floodway unless the building can be constructed and placed on a building site so as not to block flood flows nor reduce floodway storage, can also meet the Appropriate Use criteria of Section 10-6, and all other applicable requirements of this chapter.
- (E) All electrical lines, switches, receptacles, and fixtures must be located above the FPE except to the minimum extent required by applicable building or life-safety codes. Any switches, receptacles, and/or fixtures required by applicable building or life-safety codes to extend below the FPE shall be rated, or located in enclosures rated, for prolonged submersion.
- (F) No plumbing, heating, or air conditioning shall be permitted in garages, sheds, or other minor accessory structures allowed to be wet floodproofed under this Section 10-8(c)(6) in lieu of elevation.
- (G) The building must have at least one permanent opening on each wall below the BFE and not more than one (1) foot above the finished, outside grade with one (1) square inch of opening for every one (1) square foot of floor area.

- (H) The building must be less than fifteen thousand dollars (\$15,000) in market value or replacement cost whichever is greater or less than five hundred and seventy-six (576) square feet (24 feet x 24 feet).
  - (I) The building shall be anchored to resist floatation and overturning.
  - (J) All flammable or toxic materials (gasoline, paint, insecticides, fertilizers, etc.) shall be stored above the FPE.
  - (K) The lowest floor elevation should be documented, and the owner advised of the flood insurance implications of building with the lowest flood below the BFE.
- (7) In Floodplain Zones AO and AH, drainage paths shall be provided around buildings on sloped ground to guide water away from the buildings.
- (8) Existing buildings located within a designated floodway shall also meet the more restrictive appropriate use standards included in Section 10-6. Non-conforming buildings located in a designated floodway may remain in use and may only be enlarged, replaced or structurally altered in accordance with Section 10-6(b). A non-conforming building damaged by flood, fire, wind or other natural or man-made disaster may be restored unless the damage exceeds fifty percent (50%) of its market value before it was damaged, in which case it shall conform to this chapter.
- (9) New construction or substantial improvement of 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 0.2% chance flood elevation or three feet above the BFE 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 BFE shall be provided to all critical facilities. As necessary, adequate parking, at or above the BFE, shall be provided for staffing of the critical facilities during a flood. Critical facilities may include: emergency services facilities (such as fire and police stations), schools, sewage treatment plants, water treatment plants, sanitary pumping stations, hospitals, retirement homes, 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).

#### **Sec. 10-9. – Subdivision Requirements.**

The village shall take into account flood 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, and planned unit developments within the floodplain shall be reviewed to assure that the proposed developments are consistent with the provisions of this chapter and the need to minimize flood damage. Plats or plans for new subdivisions, manufactured home parks and planned unit developments shall include a signed statement by a professional engineer that the plat or plans account for changes in the drainage of surface waters in accordance with the Plat Act (765 ILCS 205/2).

(b) Proposals for new subdivisions, manufactured home parks, travel trailer parks, planned unit developments and additions to manufactured home parks and additions to subdivisions shall include BFE data

and floodway delineations. Where this information is not available from an existing adopted study, the applicant's engineer shall be responsible for calculating the BFE per Section 10-4(d) and the floodway delineation per the definition in Section 10-2.

(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.

(d) The village shall not approve any Planned Unit Development or plat of subdivision located outside the corporate limits unless such agreement or plat is in accordance with the provisions of this chapter.

(e) All public utilities and facilities, such as sewer, gas, electrical and water systems, must be located and constructed to minimize or eliminate flood damage.

#### **Sec. 10-10. – Variances.**

(a) No variances shall be granted within a designated floodway if any increase in flood levels would result.

(b) Whenever the standards of this chapter place undue hardship on a specific development proposal, the applicant may apply to plan commission for a variance. The plan commission shall review the applicant's request for a variance and shall submit its recommendation to the Board of Trustees. The Board of Trustees may attach such conditions to granting of a variance as it deems necessary to further the flood protection intent of this chapter.

(c) No variance shall be granted unless the applicant demonstrates, and the Board of Trustees find, 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 variance granted is the minimum necessary, considering the flood hazard, to afford relief;
- (4) There will be no additional threat to public health or safety, destruction of beneficial stream uses and functions including, aquatic habitat, creation of a nuisance, causation of fraud on or victimization of the public, or conflict with existing local laws or ordinances;
- (5) There will be no additional public expense for flood protection, lost environmental stream uses and functions, rescue or relief operations, policing, or repairs to streambeds and banks, roads, utilities, or other public facilities;
- (6) The provisions of Section 10-5(b) and Section 10-7(b) are nevertheless satisfied by the applicant;
- (7) The applicant's circumstances are unique and do not establish a pattern inconsistent with the intent of the NFIP; and
- (8) All other required state and federal permits or waivers have been obtained.

(d) The building commissioner shall notify an applicant in writing that a variance from the requirements of Section 10-8 that would lessen the degree of protection to a building will:

(1) result in increased premium rates for flood insurance up to amounts as high as \$25 per \$100 of insurance coverage;

(2) increase the risks to life and property; and

(3) require that the applicant proceed with knowledge of these risks and that the applicant will acknowledge in writing the assumption of the risk and liability.

(e) Variances requested in connection with restoration of a historic site or historic structure, may be granted to allow repair or rehabilitation of historic structures using criteria more permissive than the requirements of Section 10-10(c) and Section 10-10(d), subject to the conditions that:

(1) the variance is the minimum necessary to preserve the historic character and design of the building; and

(2) the repair or rehabilitation will not preclude the building's continued designation as a historic structure.

(f) The findings of fact and conclusions of law made by the Board of Trustees, the notifications required by Section 10-10(d), and a record of hearings and evidence considered as justification for the issuance of all variances from this chapter shall be maintained by the village in perpetuity.

#### **Sec. 10-11. – Disclaimer of Liability.**

(a) The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on available information derived from engineering and scientific methods of study.

(b) Larger floods may occur, or flood heights may be increased by man-made or natural causes.

(c) This Chapter does not imply that development, either inside or outside of the floodplain, will be free from flooding or damage.

(d) This Chapter does not create liability on the part of the village or any officer or employee thereof for any flood damage that results from reliance on this chapter or any administrative decision made lawfully thereunder.

#### **Sec. 10-12. – Penalty.**

(a) If such owner fails after ten days' notice to correct a violation pursuant to this chapter:

(1) The village may make application to the applicable circuit court for an injunction requiring conformance with this chapter or such other order as the court deems just and proper.

(2) Any person who violates this chapter shall, upon conviction thereof, be fined not less than \$50.00 or more than \$1,000.00 for each offense.

(3) A separate offense shall be deemed committed upon each day during or on which a violation occurs or continues.

(4) The village shall record a notice of violation on the title to the property.

(b) The building commissioner 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.

(1) The building commissioner is authorized to issue an order requiring the suspension of the subject development. The stop-work order shall be in writing, shall 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.

(2) No site development permit shall be permanently suspended or revoked until a hearing is held by the board of trustees. Written notice of such hearing shall be served on the permittee and shall state:

(A) the grounds for complaint or reasons for suspension or revocation; and

(B) the time and place of the hearing. At such hearing, the permittee shall be given an opportunity to present evidence on his/her behalf. At the conclusion of the hearing, the board of trustees shall determine whether the permit shall be suspended or revoked.

(c) Nothing herein shall prevent the village from taking such other lawful action to prevent or remedy any violations. All costs connected therewith shall accrue to the person or persons responsible.

Section 2. Adoption. The United States Department of Homeland Security's Federal Emergency Management Authority issued Flood Insurance Studies (FIS) and Flood Insurance Rate Maps (FIRMs) for Cook County FIS and FIRM panel numbers 17031C0617K and 17031C0636K effective November 1, 2019, as published at [www.illinoisfloodmaps.org](http://www.illinoisfloodmaps.org), are hereby adopted.

Section 3. Home Rule. This ordinance is enacted pursuant to the home rule powers of the Village of Alsip.

Section 4. Severability. If any section, paragraph, clause or provision of this ordinance shall be held invalid, the invalidity thereof shall not affect any of the other provisions of this ordinance.

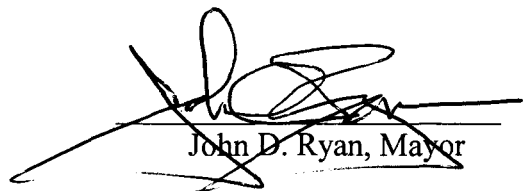
Section 5. Repealer. All ordinances or parts of ordinances in conflict with the provisions of this ordinance are hereby repealed insofar as they conflict herewith. This ordinance does not repeal the resolution passed by the Village to establish eligibility for the NFIP.

Section 6.    Effective Date. This ordinance shall be immediately in full force and effect after passage, approval, and publication as provided by law. This ordinance is authorized to be published in pamphlet form.

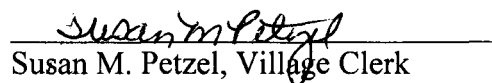
PASSED by the Mayor and Board of Trustees of the Village of Alsip, Cook County, Illinois on September 16, 2019 by the following roll call vote:

|              | YES | NO | ABSENT | ABSTAIN |
|--------------|-----|----|--------|---------|
| DALZELL      | X   |    |        |         |
| ZIELINSKI    | X   |    |        |         |
| JUAREZ       | X   |    |        |         |
| McLAWHORN    | X   |    |        |         |
| MURPHY       | X   |    |        |         |
| NAVA-ESPARZA | X   |    |        |         |
| MAYOR RYAN   |     |    |        |         |
|              |     |    |        |         |
| TOTAL        | 6   | 0  | 0      | 0       |

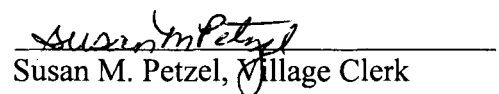
APPROVED:

  
John D. Ryan, Mayor

ATTEST:

  
Susan M. Petzel, Village Clerk

I DO HEREBY CERTIFY that this ordinance was, after its passage and approval, published in pamphlet form by the authority of the Village of Alsip, in accordance with law, this 16<sup>th</sup> day of September, 2019.

  
Susan M. Petzel, Village Clerk