

CHAPTER 720

FLOOD DAMAGE PREVENTION

720-1 PURPOSE

This Ordinance is enacted pursuant to the police powers granted to Carroll County by the County Statutory Authority in 55 ILCS 5/5-1041 and 5/5-1063. The purpose of this Ordinance is to maintain this County'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 Ordinance is adopted in order to accomplish the following purposes:

- A. To meet the requirements of 615 ILCS 5/18(g) Rivers, Lakes and Streams Act;
- B. To prevent unwise developments from increasing flood or drainage hazards to others;
- 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 promote and protect the public health, safety, and general welfare of the citizens from the hazards of flooding;
- F. To lessen the burden on the taxpayer for flood control, repairs to public facilities and utilities, and flood rescue and relief operations;
- G. To maintain property values and a stable tax base by minimizing the potential for creating blight areas;
- H. To comply with the rules and regulations of the National Flood Insurance Program codified as 44 CFR 59-79, as amended;
- I. To make federally subsidized flood insurance available by fulfilling the requirements of the National Flood Insurance Program, and
- J. To preserve the natural characteristics and functions of watercourses and floodplains in order to moderate flood and stormwater impacts, improve water quality, reduce soil erosion, protect aquatic and riparian habitat, provide recreational opportunities, provide aesthetic benefits, and enhance community and economic development.

720-2 DEFINITIONS

Unless specifically defined below, all words used in this Ordinance shall have their common meanings. The word "shall" mean the action is mandatory. For the purposes of this Ordinance, the following definitions are adopted:

Accessory Structure: A non-habitable building, used only for parking of vehicles or storage, that is on the same parcel of property as the principal building and which is incidental to the use of the principal building.

Agricultural Structure: A walled and roofed structure used exclusively for agricultural purposes or uses in connection with the production, harvesting, storage, raising, or drying of agricultural commodities and livestock, including aquatic organisms. Structures that house tools or equipment used in connection with these purposes or uses are also considered to have agricultural purposes or uses.

Base Flood: The flood having a one percent (1%) probability of being equaled or exceeded in any given year. The base flood is often referred to as the 100-year flood. The base flood elevation at any location is as defined in Section 720-3 of this Ordinance.

Base Flood Elevation (BFE): 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.

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

Building: A walled and roofed structure, 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 one hundred eighty (180) days per year.

Conditional Letter of Map Revision (CLOMR): 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: 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: 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.

Development: Any man-made change to real estate including, but not necessarily limited to:

1. demolition, construction, reconstruction, repair, placement of a building, or any structural alteration to a building;
2. substantial improvement of an existing building;

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3. installation of a manufactured home on a site, preparing a site for a manufactured home, or installing a travel trailer on a site for more than one hundred eighty (180) days per year;
4. installation of utilities, construction of roads, bridges, culverts or similar projects;
5. redevelopment of a site, clearing of land as an adjunct of construction
6. construction or erection of levees, dams, walls, or fences;
7. drilling, mining, filling, dredging, grading, excavating, paving, or other alterations of the ground surface;
8. storage of materials including the placement of gas and liquid storage tanks, and channel modifications or any other activity that might change the direction, height, or velocity of flood or surface waters.

“Development” does not include resurfacing of pavement when there is no increase in elevation; construction of farm fencing; or gardening, plowing, and similar practices that do not involve filing, grading, or construction of levees.

Elevation Certificate: A form published by FEMA that is used to certify the elevation to which a Building has been constructed.

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

Expansion to an Existing Manufactured Home Park or Subdivision: 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: Federal Emergency Management Agency and its regulations at 44 CFR 59-79, as amended.

Flood: 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 Fringe: That portion of the floodplain outside of the regulatory floodway.

Flood Insurance Rate Map (FIRM): A map prepared by the FEMA that depicts the floodplain or Special Flood Hazard Area (SFHA) within a community. This map includes insurance rate zones and may or may not depict floodways and show BFEs.

Flood Insurance Study (FIS): An examination, evaluation and determination of flood hazards and, if appropriate, corresponding water surface elevations.

Floodplain and Special Flood Hazard Area (SFHA): These two terms are synonymous. Those lands within the jurisdiction of Carroll County, that are subject to inundation by the base flood. The floodplains of Carroll County are generally identified as such on panel numbers 25, 50, 75, 85, 95, 100, 105, 115, 125, 150, 160, 170, 180, 200, 205, 225, 250, 275, 300, 305, 325, 350, 360, 375 and 400 of the countywide FIRM of Carroll County prepared by the FEMA and dated December 17th, 2010. Floodplain also includes those areas of known flooding as identified by the community.

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

Floodproofing Certificate: A form published by the 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): The elevation of the base flood plus one foot freeboard at any given location in the floodplain.

Floodway: That portion of the floodplain required to store and convey the base flood. The floodway for the floodplains of the Mississippi and Plum Rivers shall be as delineated on the countywide FIRM of Carroll County prepared by FEMA and dated December 17th, 2010. The floodways for each of the remaining floodplains of Carroll County shall be according to the best data available from the Federal, State, or other sources.

Freeboard: 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.

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Historic Structure: Any structure that is:

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

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

IDNR /OWR Jurisdictional Stream: IDNR/OWR has jurisdiction over any stream serving a tributary area of 640 acres or more in an urban area, or in the floodway of any stream serving a tributary area of 6,400 acres or more in a rural area. Construction on these streams requires a permit from the IDNR/OWR. (Ill Admin. Code tit. 17, pt. 3700.30). The IDNR/OWR may grant approval for specific types of activities by issuance of a statewide permit which meets the standards defined in Section 720-6 of this Ordinance.

Letter of Map Amendment (LOMA): Official determination by FEMA that a specific building, defined 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, defined area of land, or a parcel of land is removed from the floodplain.

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

Lowest Floor: The lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access, or storage in an area other than a basement area is not considered a building's lowest floor. Provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of Section 720-7 of this Ordinance.

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

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

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

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

NFIP: National Flood Insurance Program.

NAVD 88: North American Vertical Datum of 1988. NAVD 88 supersedes the National Geodetic Vertical Datum of 1929 (NGVD).

Recreational Vehicle or Travel Trailer: A vehicle which is:

1. built on a single chassis;
2. four hundred (400) square feet or less in size, when measured at the largest horizontal projection;
3. designed to be self-propelled or permanently towable by a light duty truck; and
4. designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel or seasonal use.

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

SFHA: See definition of floodplain.

Start of Construction: Includes substantial improvement and means the date the building permit was issued. This, provided the actual start of construction, repair, reconstruction, rehabilitation, addition placement or other improvement, was within one hundred eighty (180) days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns or any work beyond the stage of excavation or placement of a manufactured home on a foundation. For a substantial improvement, actual start of construction means the first alteration of any wall, ceiling,

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floor or other structural part of a building whether or not that alteration affects the external dimensions of the building.

Structure (see “Building”): The results of a man-made change to the land constructed on or below the ground, including a building, as defined in Section 2, any addition to a building; installing utilities, construction of roads or similar projects; construction or erection of levees, walls, fences, bridges or culverts.

Substantial Damage: Damage of any origin sustained by a structure whereby the cumulative percentage of damage during the life of the building equals or exceeds fifty percent (50%) of the current market value of the structure as shown in the previous years tax assessment from the Carroll County Assessment Office 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” (see definition).

Substantial Improvement: Any reconstruction, rehabilitation, addition or improvement of a structure taking place during the life of the building in which the cumulative percentage of improvements equals or exceeds fifty percent (50%) of the current market value of the structure as shown in the previous years tax assessment from the Carroll County Assessment Office before the improvement or repair is started or increases the floor area by more than twenty percent (20%).

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

The term does not include:

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

Violation: The failure of a structure or other development to be fully compliant with this Ordinance.

720-3 BASE FLOOD EVALUATION

This Ordinance’s protection standard is the base flood. The best available base flood data are listed below. Whenever a party disagrees with the best available data, the party shall finance the detailed engineering study needed to replace the existing data with better

data and submit it to the FEMA and IDNR/OWR for approval prior to any development of the site.

- A. The BFE for the floodplains of the Mississippi and Plum Rivers shall be as delineated on the base flood profiles in the countywide Flood Insurance Study of Carroll County prepared by the FEMA and dated December 17th, 2010.
- B. 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 Carroll County.
- C. The BFE for each of the remaining floodplains delineated as an "A Zone" on the countywide FIRM of Carroll County shall be according to the best data available from federal, state, or other sources. Should no other data exist, an engineering study must be financed by the applicant to determine BFEs.

720-4 DUTIES of the ZONING DIRECTOR

The Zoning Director shall be responsible for the general administration of this Ordinance and ensure that all development activities within the floodplains under the jurisdiction of Carroll County meet the requirements of this Ordinance. Specifically, the Zoning Director shall:

- A. Check all new development sites to determine if they are in the floodplain using the criteria listed in Section 720-3, BFE or for critical facilities, using the 0.2% annual chance flood elevation, if defined.
- B. Process development permits and any permit extensions in accordance with Section 720-5 and ensure all development activities happen in a timely manner.
- C. Ensure that all development in a floodway (or a floodplain with no delineated floodway) meets the damage prevention requirements of Section 720-6.
- D. Ensure that the building protection requirements for all buildings subject to Section 720-7 are met and maintain a record of the "as-built" elevation of the lowest floor (including basement), elevation certificate, or floodproofing certificate.
- E. Review Elevation Certificates for accuracy and require incomplete or deficient certificates to be corrected.
- F. Assure that all subdivisions and annexations meet the requirements of Section 720-8 and notify FEMA in writing whenever the corporate boundaries have been modified by annexation.
- G. Ensure that water supply and waste disposal systems meet the Public Health standards of Section 720-9.
- H. If a variance is requested, ensure that the requirements of Section 720-11 are met and maintain documentation of any variances granted.

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- I. Inspect all development projects and take any and all penalty actions outlined in Section 720-13 as a necessary to ensure compliance with this Ordinance.
- J. Ensure that applicants are aware of and obtain any and all other required local, state, and federal permits; including permits pertaining to IDNR/OWR floodway and dam safety rules, Clean Water Act, Public Water Supply, Endangered Species Act, Illinois Endangered and Species Protection Act.
- K. Notify IDNR/OWR and any neighboring communities prior to any alteration or relocation of a watercourse.
- L. Provide information and assistance to citizens upon request about permit procedures and floodplain construction techniques.
- M. Cooperate with state and federal floodplain management agencies to coordinate base flood data and to improve the administration of this Ordinance.
- N. Maintain for public inspection base flood data, floodplain maps, copies of state and federal permits, and any other documentation of compliance for development activities subject to this Ordinance.
- O. Notify FEMA and IDNR/OWR of any proposed amendments to this Ordinance.
- P. Perform site inspections to ensure compliance with this Ordinance and make substantial damage determinations for structures within the floodplain.
- Q. Maintain the accuracy of floodplain maps including notifying IDNR/OWR and/or submitting information to FEMA within six months whenever a modification of the floodplain may change the BFE or result in a change to the floodplain map.
- R. Schedule an annual inspection of the floodplain and document the results of the inspection.
- S. Establish, procedures for administering and documenting determinations, as outlined below, of substantial improvement and substantial damage:
 - 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 property owner of all determinations and responsibilities for permitting and mitigation

A. Development permits

1. No person, firm, corporation, or governmental body, not exempted by law, shall commence any development in the floodplain without first obtaining a development permit from the Zoning Director.
2. No person, firm, corporation, or governmental body shall commence any development of a critical facility on land below the 0.2% annual chance flood elevation without first obtaining a Development permit from the Zoning Director.
3. The Zoning Director shall only issue a permit for development activities, including new construction and substantial improvements, which meet the requirements of this Ordinance.

B. The application for development permit shall be accompanied by:

1. A site plan or drawings, drawn to scale using NAVD 88, showing:
 - a. property lines and dimensions;
 - b. existing grade elevations;
 - c. all changes in grade resulting from excavation or filling;
 - d. description of the benchmark or source of survey elevation control;
 - e. sewage disposal facilities;
 - f. water supply facilities;
 - g. floodplain limits based on elevation or depth, as applicable;
 - h. floodway limits, as applicable;
 - i. the location and dimensions of all buildings and additions to buildings;
 - j. the location and dimensions of all structures, including but not limited to fences, culverts, decks, gazebos, agricultural structures, and accessory structures;
 - k. the elevation of the lowest floor (including basement) of all proposed buildings subject to the requirements of Section 720-7 of this Ordinance.
2. Cost of project or improvements, including all materials and labor, as estimated by a licensed engineer or architect. A signed estimate by a contractor may also meet this requirement.

C. Upon receipt of an application for a development permit, the Zoning Director shall compare the elevation of the site to the BFE.

1. Any development located on land that is shown by survey elevation to be below the current BFE is subject to the provisions of this Ordinance.
2. Any development located on land shown to be below the BFE and hydraulically connected to a flood source, but not identified as floodplain on the current FIRM, is subject to the provisions of this Ordinance.

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3. Any development located on land that can be shown by survey data to be higher than the current BFE and which has not been filled after the date of the site's first flood map showing the site in the floodplain, is not located in a mapped floodway, or located in a Zone A, is not in the floodplain and therefore not subject to the provisions of this Ordinance. A LOMR-Floodway is required before developing land inadvertently included in a mapped floodway. Unless a LOMR is obtained, all Ordinance provisions apply if the land is located in a Zone A.
 4. Any development located on land that is above the current BFE but will be graded to an elevation below the BFE, is subject to the provisions of this Ordinance.
 5. The Zoning Director 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.
 6. The Zoning Director shall be responsible for obtaining from the applicant copies of all other federal, state, and local permits, approvals or permit-not-required letters that may be required for this type of activity. The Zoning Director shall not issue a permit unless all other federal, state, and local permits have been obtained.
- D. Upon receipt of an application for a critical facility, the Zoning Director shall compare the elevation of the site to the 0.2% annual chance flood elevation, if available. Refer to Section 720-9A 5. for critical facility site requirements.
- E. A development permit or approval shall become invalid unless the actual Start of Construction, as defined, 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 Zoning Director. Time extensions shall be granted only if the original permit is compliant with this Ordinance and the FIRM and FIS in effect at the time the extension is granted.
- F. Certification and As-Built Documentation. The applicant is required to submit certification by a licensed professional engineer or registered land surveyor that the finished fill and building elevations were accomplished in compliance with Section 720-7 of this Ordinance. Floodproofing measures must be certified by a registered professional engineer or registered architect as being compliant with applicable floodproofing standards. Accessory structures designed in accordance with Section 720-7 of this Ordinance are exempt from certification, provided sufficient compliance with the development permit are documented. FEMA Elevation Certificate and Floodproofing Certificate forms are required as documentation of compliance.

An as-built grading plan, prepared by a registered professional engineer is required to certify that any development in floodplain, such as grading or the construction of bridges or culverts, are in substantial conformance with the development permit.

No building, land or structure may be occupied or used in any manner until a letter or certificate has been issued by the Zoning Director stating that the use of the building or land conforms to the requirements of this Ordinance.

The Zoning Director must maintain records in perpetuity documenting compliance with this Ordinance, including the elevation to which structures and alterations to structures are constructed or floodproofed.

G. Permit Application Fees. Fees for permits shall be as follows:

1. Development permit application for clearing debris, demolishing buildings or removing buildings out of SFHA: \$0 – No Fee
2. Permit application for construction, reconstruction, improvements to existing buildings, installing a manufactured home, or any other development projects: \$500 and subject to final permit fees found within Carroll County Ordinance Chapter 360-3.

720-6 PREVENTING INCREASED FLOOD HEIGHTS and RESULTING DAMAGES

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

A. Except as provided in Section 720-6B of this Ordinance, no development shall be allowed which, acting in combination with existing and anticipated development will cause any increase in flood heights or velocities or threat to public health and safety. The following specific development activities shall be considered as meeting this requirement:

1. Bridge and culvert crossings of streams in rural areas meeting the conditions of the IDNR/OWR Statewide Permit Number 2.
2. Barge fleeting facilities meeting the conditions of IDNR/OWR Statewide Permit Number 3.
3. Aerial utility crossings meeting the conditions of IDNR/OWR Statewide Permit Number 4.
4. Minor boat docks meeting the following conditions of IDNR/OWR Statewide Permit Number 5.
5. Minor, non-obstructive activities such as underground utility lines, light poles, sign posts, driveways, athletic fields, patios, playground equipment, minor storage buildings not exceeding 70 square feet and raising buildings on the same footprint which does not involve fill and any other activity meeting the conditions of IDNR/OWR Statewide Permit Number 6.

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6. Outfall Structures and drainage ditch outlets meeting the following conditions of IDNR/OWR Statewide Permit Number 7.
7. Underground pipeline and utility crossings meeting the conditions of IDNR/OWR Statewide Permit Number 8.
8. Bank stabilization projects meeting the conditions of IDNR/OWR Statewide Permit Number 9.
9. Accessory structures and additions to existing residential buildings meeting the conditions of IDNR/OWR Statewide Permit Number 10.
10. Minor maintenance dredging activities meeting the following conditions of IDNR/OWR Statewide Permit Number 11.
11. Bridge and culvert replacement structures and bridge widening meeting the following conditions of IDNR/OWR Statewide Permit Number 12.
12. Temporary construction activities meeting the following conditions of IDNR/OWR Statewide Permit Number 13.
13. Any development determined by IDNR/OWR to be located entirely within a flood fringe area shall be exempt from state floodway permit requirements.

B. Other development activities not listed in 6(A) may be permitted only if:

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

720-7 PROTECTING BUILDINGS

A. In addition to the state permit and damage prevention requirements of Section 720-6 of this Ordinance, all buildings located in the floodplain shall be protected from flood damage below the FPE. This building protection requirement applies to the following situations:

1. Construction or placement of a new building or alteration or addition to an existing building.
2. Value of improvements equals or exceeds the market value by fifty percent (50%) or structural alterations made to an existing building that increase the floor area by more than twenty percent (20%). Improvements shall be figured cumulatively during the life of the building. If substantially improved, the existing structure and the addition must meet the flood protection standards of this section.
3. Repairs made to a substantially damaged building – These repairs shall be figured cumulatively during the life of the building. If substantially damaged,

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

4. Installing a manufactured home on a new site or a new manufactured home on an existing site.
5. Installing a travel trailer or recreational vehicle on a site for more than one hundred eighty (180) days per year.
6. Repetitive loss to an existing building as defined in Section 720-2.

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

1. The building may be constructed on permanent land fill with the lowest floor including basement at or above the FPE in accordance with the following conditions:
 - a. The lowest floor (including basement) shall be at or above the FPE.
 - b. The fill shall be placed in layers no greater than six inches before compaction and should extend at least twenty (20) feet beyond the foundation before sloping below the FPE in lieu of a geotechnical report.
 - c. The fill shall be protected against erosion and scour during flooding by vegetative cover, riprap, or other structural measure.
 - d. The fill shall be composed of rock or soil and not incorporated debris or refuse material.
 - e. The fill shall not adversely affect the flow of surface drainage from or onto neighboring properties and when necessary, stormwater management techniques, such as swales or basins, shall be incorporated.
2. The building may be elevated on solid walls in accordance with the following:
 - a. The building or improvements shall be elevated on stilts, piles, walls, crawlspace, or other foundation that is permanently open to flood waters.
 - b. All components located below the FPE shall be constructed of materials resistant to flood damage.
 - c. The lowest floor and all electrical, heating, ventilating, plumbing, and air conditioning equipment shall be located at or above the FPE.
 - d. If walls are used, all enclosed areas below the FPE shall provide for equalization of hydrostatic pressures by allowing the automatic entry and exit of floodwaters. At least two (2) walls 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 Registered P.E, 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.

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- e. The foundation and supporting members shall be anchored, designed, and certified so as to minimize exposure to hydrodynamic forces such as current, waves, ice, and floating debris.
 - i. Water and sewer pipes, electrical and telephone lines, submersible pumps, and other service facilities may be located below the FPE provided they are waterproofed.
 - ii. The area below the FPE shall be used solely for parking or building access and not later modified or occupied as habitable space.
 - iii. In lieu of the above criteria, the design methods to comply with these requirements may be certified by a licensed professional engineer or architect.
- 3. The building may be constructed with a crawlspace located below the FPE provided that the following conditions and requirements of FEMA TB 11, Crawlspace Construction for Buildings Located in Special Flood Hazard Areas, which ever are more restrictive, are met:
 - a. The building must be designed and adequately anchored to resist flotation, collapse, and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.
 - b. All enclosed areas below the FPE shall provide for equalization of hydrostatic pressures by allowing the automatic entry and exit of floodwaters. A minimum of one (1) permanent opening shall be provided on at least two walls 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 Registered P.E. 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.
 - c. 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.
 - d. 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.
 - e. Portions of the building below the FPE must be constructed with materials resistant to flood damage, and
 - f. Utility systems within the crawlspace must be elevated above the FPE.
- C. Non-residential buildings may be structurally dry floodproofed (in lieu of elevation) provided a licensed professional engineer or architect certifies that:

1. Below the FPE the structure and attendant utility facilities are watertight and capable of resisting the effects of the base flood.
2. The building design accounts for flood velocities, duration, rate of rise, hydrostatic and hydrodynamic forces, the effects of buoyancy, and the impact from debris and ice.
3. Floodproofing measures will be incorporated into the building design and operable without human intervention and without an outside source of electricity.
4. Levees, berms, floodwalls, and similar works are not considered floodproofing for the purpose of this subsection.

D. Manufactured homes or travel trailers to be permanently installed on site shall be:

1. Elevated to or above the FPE in accordance with Section 7. B, and
2. anchored to resist flotation, collapse, or lateral movement by being tied down in accordance with the rules and regulations for the Illinois Mobile Home Tie Down Act issued pursuant to 77 Ill. Adm. Code § 870.

E. Travel trailers and recreational vehicles on site for more than one hundred eighty (180) days per year shall meet the elevation requirements of section 720-7D unless the following conditions are met:

1. The vehicle must be either self-propelled or towable by a light duty truck.
2. The hitch must remain on the vehicle at all times.
3. The vehicle must not be attached to external structures such as decks and porches
4. The vehicle must be designed solely for recreation, camping, travel, or seasonal use rather than as a permanent dwelling.
5. The vehicles having a total area not exceeding four hundred (400) square feet measured when measured at the largest horizontal projection.
6. The vehicle's wheels must remain on axles and inflated.
7. Air conditioning units must be attached to the frame so as to be safe for movement of the floodplain.
8. Propane tanks as well as electrical and sewage connections must be quick disconnect.
9. The vehicle must be licensed and titled as a recreational vehicle or park model, and must either:
 - a. entirely be supported by jacks, or
 - b. have a hitch jack permanently mounted, have the tires touching the ground and be supported by block in a manner that will allow the block to be easily removed by used of the hitch jack.

F. Detached accessory structures may be permitted provided the following conditions are met:

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1. The structure must be non-habitable.
2. The structure must be used only for the parking and storage and cannot be modified later into another use.
3. The structure must be located outside of the floodway or have the appropriate state and/or federal permits.
4. The exterior and interior building components and elements (i.e., foundation, wall framing, exterior and interior finishes, flooring, etc.) below the BFE, must be built with flood-resistant materials in accordance Section 7.
5. All utilities, mechanical, and electrical must be elevated above the FPE.
6. The structure must have at least one permanent opening on at least two walls not more than one (1) foot above grade with one (1) square inch of opening for every one (1) square foot of floor area.
7. The structure must be no more than one story in height and no more than six hundred (600) square feet in size.
8. The structure shall be anchored to resist floatation, collapse, lateral movement. and overturning.
9. All flammable or toxic materials (gasoline, paint, insecticides, fertilizers, etc.) shall be stored above the FPE.
10. The lowest floor elevation should be documented and the owner advised of the flood insurance implications.

720-8 SUBDIVISION REQUIREMENTS

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

- A. New subdivisions, manufactured home parks, annexation agreements, planned unit developments, and additions to manufactured home parks and subdivisions shall meet the damage prevention and building protections standards of Sections 6 and 7 of this Ordinance.
- B. 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 should be included within parks, open space parcels, or other public grounds.
- C. Any proposal for such development shall include the following data:
 1. The BFE and the boundary of the floodplain, where the BFE is not available from an existing study, the applicant shall be responsible for calculating the BFE.
 2. The boundary of the floodway, when applicable.

3. A signed statement by a Licensed Professional Engineer that the proposed plat or plan accounts for changes in the drainage of surface waters in accordance with the Plat Act (765 ILCS 205/2).

720-9 PUBLIC HEALTH and OTHER STANDARDS

A. Public health standards must be met for all floodplain development. In addition to the requirements of Sections 720-6 and 720-7 of this Ordinance, the following standards apply:

1. No development in the floodplain shall include locating or storing chemicals, explosives, buoyant materials, flammable liquids, pollutants, or other hazardous or toxic materials below the 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 720-7 of this Ordinance.
2. Public utilities and facilities such as sewer, gas and electric shall be located and constructed to minimize or eliminate flood damage.
3. Public sanitary sewer systems and water supply systems shall be located and constructed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters.
4. New and replacement on-site sanitary sewer lines or waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding. Manholes or other above ground openings located below the FPE shall be watertight.
5. Critical facilities, which are buildings, constructed or substantially improved within the floodplain or the 0.2 percent annual chance flood elevation when defined, shall have the lowest floor (including basement) elevated or structurally dry floodproofed to the 0.2 percent annual chance flood elevation or three feet above the BFE, whichever is greater. Adequate parking shall be provided for staffing of the critical facilities at or above the BFE or 0.2 percent chance flood, when defined. Access routes to all critical facilities should be reviewed and considered when permitting. Access routes should be elevated to or above the level of the BFE.

Floodproofing and sealing measures may also be used to provide protection, as described in Section 7, and must be taken to ensure that toxic substances will not be displaced by or released into floodwaters.

Critical Facilities include emergency services facilities (such as fire and police stations), schools, hospitals, retirement homes, senior care facilities, and Army Depot Road.

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

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- C. Dams are classified as to their size and their hazard/damage potential in the event of failure. Permits for dams may be required from IDNR/OWR. 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. Letters of Map Revision. The Zoning Officer shall require a CLOMR prior to issuance of a development permit for:
 - 1. Proposed floodway encroachments that will cause an increase in the BFE; and
 - 2. Proposed development which will increase the BFE by more than 0.1 feet in riverine area where FEMA has provided a BFE but no floodway.

Once a CLOMR has been issued, the development permit may be issued for site grading and structures necessary in the area of the map change to achieve the final LOMR. Upon completion, the applicant shall submit as-built certifications, as required by FEMA, to achieve a final LOMR prior to the release of final development permits. Review Section 9. E for the construction of buildings in any floodplain issued a LOMR Based on Fill.

- E. When construction of a building following a LOMR Based on Fill is requested, the condition where a site in the floodplain is removed due to the use of fill to elevate the site above the BFE, the applicant may not apply for a permit from Carroll County to construct the lowest floor of a building below the BFE in the floodplain.

720-10 CARRYING CAPACITY and NOTIFICATION

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

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

720-11 VARIANCES

- A. No variances shall be granted within a floodway if any increases in the base flood elevation would result.
- B. Whenever the standards of this Ordinance place undue hardship on a specific development proposal, the applicant may apply to the Zoning Board of Appeals for a variance. The Zoning Board of Appeals shall review the applicant's request for a variance and shall submit its recommendation to the County Board. The County Board may attach such conditions to granting of a variance as it deems necessary to further

the purposes and objectives of this Ordinance. The County Board shall base the determination on:

1. Technical justifications submitted by the applicant.
 2. The staff report, comments, and recommendations submitted by the floodplain administrator.
 3. The limitations, considerations, and conditions set forth in this section.
- C. The findings of fact and conclusions of law made by the Zoning Board of Appeals according to Section 720-11A, the notifications required by Section 720-11B, and a record of hearings and evidence considered as justification for the issuance of all variances from this Ordinance shall be maintained by the Carroll County Zoning Office in perpetuity.
- D. No variance shall be granted unless the applicant demonstrates and the Zoning Board of Appeals finds that all the following conditions are met:
1. The development activity cannot be located outside the floodplain.
 2. A determination that failure to grant the variance would result in exceptional hardship by rendering the lot undevelopable.
 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, public safety, destruction of beneficial stream uses and functions including, aquatic habitat, causation of fraud on or victimization of the public, conflict with existing local laws or ordinances, or creation of a nuisance.
 5. There will be no additional public expense for flood protection, rescue or relief operations, policing, lost environmental stream uses and functions, repairs to streambeds and banks, or repairs to roads, utilities, or other public facilities.
 6. The circumstances of the property are unique and do not establish a pattern inconsistent with the intent of the NFIP.
 7. Good and sufficient cause has been shown that the unique characteristics of the size, configuration, or topography of the site renders the requirements of this Ordinance inappropriate.
 8. All other state and federal permits have been obtained.
- E. The Zoning Board of Appeals shall notify an applicant in writing that a variance from the requirements of the building protections standards of Section 720-7 that would lessen the degree of protection to a building will:
1. Result in increased premium rates for flood insurance up to twenty-five dollars (\$25) per one hundred dollars (\$100) of insurance coverage.
 2. Increase the risk to life and property.

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3. Require that the applicant proceed with knowledge of these risks and that the applicant acknowledge in writing the assumption of the risk and liability.
- F. Considerations for reviewing applications for variances, all technical evaluations, all relevant factors, and all other portions of these regulations - the following shall be considered:
1. The danger that materials and debris may be swept onto other lands resulting in further injury or damage.
 2. The danger to life and property due to flooding or erosion damage.
 3. The susceptibility of the proposed development, including contents, to flood damage and the effect of such damage on current and future owners.
 4. The importance of the services provided by the proposed development to the community.
 5. The availability of alternate locations for the proposed development that are not subject to flooding or erosion.
 6. The compatibility of the proposed development with existing and anticipated development.
 7. The relationship of the proposed development to the comprehensive plan and floodplain management program for that area.
 8. The safety of access to the property in times of flood for ordinary and emergency vehicles.
 9. The expected heights, velocity, duration, rate of rise and debris and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site.
 10. The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water systems, streets, and bridges.
- G. Historic structure variances issued for the reconstruction, repair, or alteration of a historic site or historic structure as defined in "Historic Structures", may be granted using criteria more permissive than the requirements of Sections 720-6 and 720-7 of this Ordinance subject to the conditions that:
1. The repair or rehabilitation is the minimum necessary to preserve the historic character and design of the structure.
 2. The repair or rehabilitation will not preclude the structure's continued designation as a historic structure.
- H. Agriculture structure variances issued for the construction or substantial improvement of agricultural structures which do not meet the non-residential building requirements of Sections 720-7B and 720-7C, provided the requirements of Section 720-11A through 11G and the following are satisfied:

1. A determination that the proposed agricultural structure:
 - a. Is used exclusively in connection with the production, harvesting, storage, raising, or drying of agricultural commodities, or storage of tools or equipment used in connection with these purposes or uses, and will be restricted to such exclusive uses.
 - b. Has low damage potential (amount of physical damage, contents damage, and loss of function).
 - c. Does not increase risks and pose a danger to public health, safety, and welfare if flooded and contents are released, including but not limited to the effects of flooding on liquified natural gas terminals, and production and storage of highly volatile, toxic, or water-reactive materials.
 - e. Complies with the wet floodproofing construction requirements of the following Section 720-11H 2.
2. Wet floodproofing construction requirements. Wet floodproofed structures shall:
 - a. The exterior and interior building components and elements (i.e., foundation, wall framing, exterior and interior finishes, flooring, etc.) below the BFE, must be built with flood-resistant materials in accordance with Section 720-7 of this Ordinance.
 - b. The building must be designed and adequately anchored to resist flotation, collapse, and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.
 - c. All enclosed areas below the FPE shall provide for equalization of hydrostatic pressures by allowing the automatic entry and exit of floodwaters. A minimum of one (1) permanent opening shall be provided on at least two walls 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 Registered P.E. 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.
 - d. Any mechanical, electrical, or other utility equipment must be located above the BFE or floodproofed so that they are contained within a watertight, floodproofed enclosure that is capable of resisting damage during flood conditions in accordance with Section 720-7 of this Ordinance.
 - e. If located in a floodway, must be issued a state floodway permit, and comply with Section 720-6 of this Ordinance.
 - f. The building may not be used for manure storage or livestock confinement operations.

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720-12 DISCLAIMER of LIABILITY

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

720-13 PENALTY

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

- A. If such owner fails after ten (10) days from the date the written notice is issued, to correct the violation:
 - 1. Carroll County shall make application to the Circuit Court for an injunction requiring conformance with this Ordinance or make such other order as the court deems necessary to secure compliance with the Ordinance.
 - 2. Any person who violates this Ordinance shall upon conviction thereof be fined not less than fifty dollars (\$50) or more than seven hundred fifty (\$750) for each offense.
 - 3. A separate offense shall be deemed committed upon each day during or on which a violation occurs or continues, and
 - 4. Carroll County shall record a notice of violation on the title of the property.
- B. The Zoning Director 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.

The Zoning Director is authorized to issue an order requiring the suspension of the subject development. The stop-work order shall be in writing, indicate the reason for the issuance, and shall order the action, if necessary, to resolve the circumstances requiring the stop-work order. The stop-work order constitutes a suspension of the permit.

No site development permit shall be permanently suspended or revoked until a hearing is held by the Zoning Board of Appeals. Written notice of such hearing shall be served on the permittee and shall state the grounds for the complaint, reasons for suspension or revocation, and the time and place of the hearing.

At such hearing the permittee shall be given an opportunity to present evidence on their behalf. At the conclusion of the hearing, the Zoning Board of Appeals shall determine whether the permit shall be suspended or revoked.

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

720-14 ABROGATION and GREATER RESTRICTIONS

This Ordinance repeals and replaces other ordinances adopted by the County Board to fulfill the requirements of the NFIP including: January 18th, 2007. However, this Ordinance does not repeal the original resolution or ordinance adopted to achieve eligibility in the program. Nor does this Ordinance repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. Where this Ordinance and other ordinance easements, covenants or deed restrictions conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

720-15 SEVERABILITY

The provisions and sections of this Ordinance shall be deemed separable and the invalidity of any portion of this Ordinance shall not affect the validity of the remainder.

720-16 EFFECTIVE DATE

This Ordinance shall be in full force and effect from and after its passage, approval, and publication as required by law.

Passed by the County Board of the County of Carroll, Illinois, this 1st day of August, 2024, the vote being taken by ayes and noes and entered upon the legislative records as follows:

AYES:

NOES:

Attested and filed in my office this 15th day of August, 2024.

APPROVED:

County Board Chair

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ATTEST

A handwritten signature in blue ink, reading "Amy R. Buss", is written over a horizontal line.

County Clerk