FLOOD DAMAGE PREVENTION ORDINANCE
Ordinance No.

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FLOOD DAMAGE PREVENTION ORDINANCE
PIKE COUNTY, INDIANA

Article 1. Statutory Authorization, Findings of Fact, Purpose, and Methods

Section A. Statutory Authorization

The Indiana Legislature has in IC 36-1-4-11 granted the power to local government units to adopt, codify, and enforce ordinances within their jurisdictions. Therefore, the Board of Commissioners of Pike County, Indiana does hereby adopt the following floodplain management regulations.

Section B. Findings of Fact

The flood hazard areas of Pike County are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare. Additionally, structures that are inadequately elevated, floodproofed, or otherwise protected from flood damage also contribute to the flood loss. To minimize the threat of such damage and to achieve the purposes hereinafter set forth, these regulations are adopted.

Section C. Statement of Purpose

It is the purpose of this ordinance to promote the public health, safety, and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

(1) Protect human life and health.

(2) Minimize expenditure of public money for costly flood control projects.

(3) Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public.

(4) Minimize prolonged business interruptions.

(5) Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone, and sewer lines, streets, and bridges located in floodplains.

(6) Help maintain a stable tax base by providing for the sound use and development of flood prone areas in such a manner as to minimize flood blight areas.

(7) Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

(8) Minimize the impact of development on adjacent properties within and near flood prone areas.

(9) Ensure that the flood storage and conveyance functions of the floodplain are maintained.

(10) Minimize the impact of development on the natural, beneficial values of the floodplain.

(11) Prevent floodplain uses that are either hazardous or environmentally incompatible.

(12) Meet community participation requirements of the National Flood Insurance Program.

Section D. Methods of Reducing Flood Loss

To accomplish its purposes, these regulations include methods and provisions for:

(1) Restricting or prohibiting uses which are dangerous to health, safety, and property due to water hazards, or which result in damaging increases in flood heights or velocities.

(2) Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction.

(3) Controlling the alteration of natural floodplains, stream channels, and protective barriers, which help accommodate or channel flood waters.

(4) Controlling filling, grading, dredging, excavating, and other development which may increase flood damage.

(5) Preventing or regulating the construction of flood barriers, which will unnaturally divert floodwater, or which may increase flood hazards in other areas.

Article 2. Definitions

Unless specifically defined below, words or phrases used in these regulations shall be interpreted by the meaning they have in common usage and to give these regulations the most reasonable application.

Accessory Structure means a structure with a floor area of 400 square feet or less that is on the same parcel of property as a principal structure and has a use which is incidental to the use of the principal structure. An accessory structure specifically excludes structures used for human habitation.

(1) Accessory structures are considered walled and roofed where the structure includes at least two outside rigid walls and a fully secured roof.

(2) Examples of accessory structures include but are not necessarily limited to two-car detached garages (or smaller), carports, storage and tool sheds, and small boathouses.

(3) The following may have uses that are incidental or accessory to the principal structure on a parcel but are generally not considered to be accessory structures by the NFIP:

a. Structures in which any portion is used for human habitation, whether as a permanent residence or as temporary or seasonal living quarters, such as a detached garage or carriage house that includes an apartment or guest quarters, or a detached guest house on the same parcel as a principal residence.

b. Structures used by the public, such as a place of employment or entertainment.

c. Development that does not meet the NFIP definition of a structure for floodplain management purposes. Examples include, but are not necessarily limited to, a gazebo, pavilion, picnic shelter, or carport that is open on all sides (roofed but not walled).

Addition (to an existing structure) means any walled and roofed expansion to the perimeter of a structure in which the addition is connected by a common load-bearing wall other than a firewall. Any walled and roofed addition, which is connected by a firewall or is separated by independent perimeter load-bearing walls, is new construction.

Alteration of a watercourse means a dam, impoundment, channel relocation, change in channel alignment, channelization, or change in cross-sectional area of the channel or the channel capacity, or any other modification which may alter, impede, retard or change the direction and/or velocity of the flow of water during conditions of the base flood.

Appeal means a request for a review of the Floodplain Administrator's interpretation of any provision of this ordinance, a request for a variance, or a challenge of a board decision.

Area of special flood hazard is the land within a community subject to a one percent (1%) or greater chance of being flooded in any given year.

Base flood means the flood having a one percent (1%) chance of being equaled or exceeded in any given year. The base flood may also be referred to as the 1% annual chance flood or one hundred (100) year flood.

Base Flood Elevation (BFE) means the water surface elevation of the base flood in relation to a specified datum, usually the North American Vertical Datum of 1988.

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

Best Available Flood Layer (BAFL) means floodplain studies and any corresponding floodplain maps prepared and/or approved by the Indiana Department of Natural Resources which provide base flood elevation information, floodplain limits, and/or floodway delineations for flood hazards identified by approximate studies on the currently effective FIRM (Zone A) and/or for waterways where the flood hazard is not identified on available floodplain mapping.

Building – See "Structure."

Community means a political entity that has the authority to adopt and enforce floodplain ordinances for the areas within its jurisdiction.

Critical facility means a facility for which even a slight chance of flooding might be too great. Critical facilities include, but are not limited to, schools, nursing homes, hospitals, police, fire, and emergency response installations, and installations which produce, use or store hazardous materials or hazardous waste.

Development means, for floodplain management purposes, any man-made change to improved or unimproved real estate including but not limited to:

(1) construction, reconstruction, or placement of a structure or any addition to a structure;

(2) installing a manufactured home on a site, preparing a site for a manufactured home, or installing a recreational vehicle on a site for more than 180 days;

(3) installing utilities, erection of walls and fences, construction of roads, or similar projects;

(4) construction of flood control structures such as levees, dikes, dams, channel improvements, etc.;

(5) mining, dredging, filling, grading, excavation, or drilling operations;

(6) construction and/or reconstruction of boat lifts, docks, piers, and seawalls;

(7) construction and/or reconstruction of bridges or culverts;

(8) storage of materials; or

(9) any other activity that might change the direction, height, or velocity of flood or surface waters.

Elevation Certificate means a FEMA form that is routinely reviewed and approved by the White House Office of Management and Budget under the Paperwork Reduction Act, that is encouraged to be used to collect certified elevation information.

Enclosed area (enclosure) is an area of a structure enclosed by walls on all sides.

Enclosure below the lowest floor. See "Lowest Floor" and "Enclosed Area."

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 (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 community's first floodplain ordinance.

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.

Fill for floodplain management purposes, means any material deposited or placed which has the effect of raising the level of the ground surface above the natural grade elevation. Fill material includes, but is not limited to, consolidated material, such as concrete and brick, and unconsolidated material, such as soil, sand, gravel, and stone.

Flood or Flooding means a general and temporary condition of partial or complete inundation of normally dry land areas from:

(1) The overflow of inland or tidal waters.

(2) The unusual and rapid accumulation or runoff of surface waters from any source.

(3) Mudslides (i.e., mudflows) which are proximately caused by flooding and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.

Flood or flooding also includes the collapse or subsidence of land along the shore of a lake or similar body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels that result in a flood as defined above.

Flood hazard area means areas subject to the one percent (1%) annual chance flood. (See "Special Flood Hazard Area")

Flood Insurance Rate Map (FIRM) means an official map of a community, on which FEMA has delineated both the areas of special flood hazard and the risk premium zones applicable to the community. A FIRM that has been made available digitally is called a Digital Flood Insurance Rate Map (DFIRM).

Flood Insurance Study (FIS) means the official hydraulic and hydrologic report provided by FEMA. The report contains flood profiles, as well as the FIRM and the water surface elevation of the base flood.

Flood prone area means any land area acknowledged by a community as being susceptible to inundation by water from any source. (See "Floodplain")

Flood Protection Grade (FPG) is the BFE plus two (2) feet at any given location in the SFHA. (See "Freeboard")

Floodplain or **flood prone area** means any land area susceptible to being inundated by water from any source. (See "Flood")

Floodplain management means the operation of an overall program of corrective and preventive measures for reducing flood damage and preserving and enhancing, where possible, natural resources in the floodplain, including but not limited to emergency preparedness plans, flood control works, floodplain management regulations, and open space plans.

Floodplain management regulations mean zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as a floodplain ordinance, grading ordinance or erosion control ordinance), and other applications of police power which control development in flood-prone areas. The term describes such state or local regulations in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

Floodproofing (dry floodproofing) is a method of protecting a structure that ensures the structure, together with attendant utilities and sanitary facilities, is watertight to the floodproofed design elevation with walls that are substantially impermeable to the passage of water. All structural components of these walls can resist hydrostatic and hydrodynamic flood forces, including the effects of buoyancy, and anticipated debris impact forces.

Floodproofing certificate is a form used to certify compliance for non-residential structures as an alternative to elevating structures to or above the FPG.

Floodway is the channel of a river or other watercourse and the adjacent land areas that must be reserved to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. In no case shall the designated height be more than 0.14 foot at any point within the community.

Freeboard means a factor of safety, usually expressed in feet above the BFE, which is applied for the purposes of floodplain management. It is used to compensate for the many unknown factors that could contribute to flood heights greater than those calculated for the base flood.

Fringe or **Flood Fringe** is the portion of the floodplain lying outside the floodway.

Functionally dependent use means a use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, but does not include long-term storage or related manufacturing facilities.

Hardship (as related to variances of this ordinance) means the exceptional hardship that would result from a failure to grant the requested variance. The Pike County Board of Commissioners requires that the variance is exceptional, unusual, and peculiar to the property involved. Mere economic or financial hardship alone is NOT exceptional. Inconvenience, aesthetic considerations, physical handicaps, personal preferences, or the disapproval of one's neighbors likewise cannot, as a rule, qualify as an exceptional hardship. All these problems can be resolved through other means without granting a variance, even if the alternative is more expensive or requires the property owner to build elsewhere or put the parcel to a different use than originally intended.

Highest adjacent grade means the highest natural elevation of the ground surface, prior to the start of construction, next to the proposed walls of a structure.

Historic structure means any structure that is:

(1) listed individually in the National Register of Historic Places (a listing maintained by the Department of the Interior) 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 historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

(3) individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or

(4) individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified by (a) an approved state program as determined by the Secretary of Interior, or (b) directly by the Secretary of Interior in states without approved programs.

Hydrologic and hydraulic engineering analysis means analyses performed by a professional engineer licensed by the State of Indiana, in accordance with standard engineering practices that are accepted by the Indiana Department of Natural Resources and FEMA, used to determine the base flood, other frequency floods, flood elevations, floodway information and boundaries, and flood profiles.

International Code Council-Evaluation Service (ICC-ES) Report means a document that presents the findings, conclusions, and recommendations from a particular evaluation. ICC-ES reports provide information about what code requirements or acceptance criteria were used to evaluate a product, and how the product should be identified and installed.

Letter of Final Determination (LFD) means a letter issued by FEMA during the mapping update process which establishes final elevations and provides the new flood map and flood study to the community. The LFD initiates a six-month adoption period. The community must adopt or amend its floodplain management regulations during this six-month period unless the community has previously incorporated an automatic adoption clause.

Letter of Map Change (LOMC) is a general term used to refer to the several types of revisions and amendments issued by FEMA to FEMA maps that can be accomplished by letter. They are broken down into the following categories:

(1) **Conditional Letter of Map Revision (CLOMR)** means a formal review and comment by FEMA as to whether a proposed project, if built as proposed, or proposed hydrology changes would meet minimum National Flood Insurance Program floodplain management standards. A CLOMR does not amend or revise effective Flood Insurance Rate Maps, Flood Boundary and Floodway Maps, or Flood Insurance Studies.

(2) **Conditional Letter of Map Revision Based on Fill (CLOMR-F)** means a letter from FEMA stating that a parcel of land or proposed structure that will be elevated by fill would not be inundated by the base flood if fill is placed on the parcel as proposed or the structure is built as proposed.

(3) **Letter of Map Amendment (LOMA)** means an amendment by letter to the currently effective FEMA map that establishes that a building or area of land is not located in a SFHA through the submittal of property specific elevation data.

(4) **Letter of Map Amendment Out as Shown (LOMA-OAS)** means an official determination by FEMA that states the property or building is correctly shown outside the SFHA as shown on an effective NFIP map. Therefore, the mandatory flood insurance requirement does not apply. An out-as-shown determination does not require elevations.

(5) **Letter of Map Revision (LOMR)** means an official revision to the currently effective FEMA map. It is issued by FEMA and changes flood zones, delineations, and elevations.

(6) **Letter of Map Revision Based on Fill (LOMR-F)** means FEMA's modification of the SFHA shown on the FIRM based on the placement of fill outside the existing regulatory floodway.

Lowest adjacent grade means the lowest elevation, after completion of construction, of the ground, sidewalk, patio, deck support, or basement entryway immediately next to the structure.

Lowest floor means, for floodplain management purposes, the lowest elevation described among the following:

(1) The lowest floor of a building.

(2) The basement floor.

(3) The garage floor if the garage is connected to the building.

(4) The first floor of a structure elevated on pilings or pillars.

(5) The floor level of any enclosure, other than a basement, below an elevated structure where the walls of the enclosure provide any resistance to the flow of floodwater, unless the requirements

listed in a) and b) below are met Designs for meeting the flood opening requirement must either be certified by a registered professional engineer or architect or meet or exceed the following requirements:

a) The walls are designed to automatically equalize the hydrostatic flood forces on the walls by allowing for the entry and exit of floodwater.

b) At least two (2) openings are designed and maintained for the entry and exit of floodwater; and these openings provide a total net area of at least one (1) square inch for every one (1) square foot of enclosed area. The bottom of all such openings shall be no higher than one (1) foot above the exterior grade or the interior grade immediately beneath each opening, whichever is higher. Doorways and windows do not qualify as openings.

(6) The first floor of a building elevated on pilings or columns in a coastal high hazard area (as that term is defined in 44 CFR 59.1), as long as it meets the requirements of 44 CFR 60.3.

Manufactured home means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed 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.

Mitigation means sustained actions taken to reduce or eliminate long-term risk to people and property from hazards and their effects. The purpose of mitigation is twofold: to protect people and structures, and to minimize the cost of disaster response and recovery.

Natural grade for floodplain management purposes means the elevation of the undisturbed natural surface of the ground. Fill placed prior to the date of the initial identification of the flood hazard on a FEMA map is also considered natural grade.

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

New 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 (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 community's first floodplain ordinance.

North American Vertical Datum of 1988 (NAVD 88) as adopted in 1993 is a vertical control datum used as a reference for establishing varying elevations within the floodplain.

Obstruction includes, but is not limited to, any dam, wall, wharf, embankment, levee, dike, pile, abutment, protection, excavation, canalization, bridge, conduit, culvert, building, wire, fence, rock, gravel, refuse, fill, structure, vegetation, or other material in, along, across or projecting into any watercourse which may alter, impede, retard or change the direction and/or velocity of the flow of water; or due to its location, its propensity to snare or collect debris carried by the flow of water, or its likelihood of being carried downstream.

One-percent annual chance flood is the flood that has a one percent (1%) chance of being equaled or exceeded in any given year. See "Regulatory Flood."

Physical Map Revision (PMR) is an official republication of a community's FEMA map to effect changes to base (one-percent annual chance) flood elevations, floodplain boundary delineations, regulatory floodways, and planimetric features. These changes typically occur as a result of structural works or improvements, annexations resulting in additional flood hazard areas, or corrections to base flood elevations or SFHAs.

Prefabricated Building is a building that is manufactured and constructed using prefabrication. It consists of factory-made components or units that are transported and assembled on-site to form the complete building.

Principally above ground means that at least 51 percent of the actual cash value of the structure, less land value, is above ground.

Recreational vehicle means a vehicle which is:

(1) built on a single chassis;

(2) 400 square feet or less when measured at the largest horizontal projections;

(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.

Regulatory flood means the flood having a one percent (1%) chance of being equaled or exceeded in any given year, as calculated by a method and procedure that is acceptable to and approved by the Indiana Department of Natural Resources and the Federal Emergency Management Agency. The regulatory flood elevation at any location is as defined in Article 3, Section B of this ordinance. The "Regulatory Flood" is also known by the term "Base Flood," "One-Percent Annual Chance Flood," and "100-Year Flood."

Repetitive loss means flood-related damage sustained by a structure 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, equaled or exceeded 25% of the market value of the structure before the damage occurred.

Riverine means relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

Special Flood Hazard Area (SFHA), synonymous with "areas of special flood hazard" and floodplain, means those lands within the jurisdiction of Pike County subject to a one percent or greater chance of flooding in any given year. Special flood hazard areas are designated by the Federal Emergency Management Agency on Flood Insurance Rate Maps and Flood Insurance Studies as Zones A, AE, AH, AO, A1-30, A99, or VE. The SFHA also includes areas that are flood prone and designated from other federal, state or local sources of data including, but not limited to, best available flood layer maps provided by or approved by the Indiana Department of Natural Resources, historical flood information reflecting high water marks, previous flood inundation areas, and flood prone soils associated with a watercourse.

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

structure on a site, such as the pouring of a slab or footings, the installation of piles, the construction of columns, any work beyond the stage of excavation, or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, foundations, or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

Structure means a walled and roofed building, including a gas or liquid storage tank, which is principally above ground. The term includes a manufactured home, as well as a prefabricated building. It also includes recreational vehicles installed on a site for more than 180 consecutive days.

Substantial damage means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

Substantial improvement means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures that have incurred "repetitive loss" or "substantial damage" regardless of the actual repair work performed. The term does not include improvements of structures to correct existing violations of state or local health, sanitary, or safety code requirements which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions.

Variance is a grant of relief from the requirements of this ordinance consistent with the variance conditions herein.

Violation means the failure of a structure or other development to be fully compliant with this ordinance.

Walled and roofed means a building that has two or more exterior rigid walls and a fully secured roof and is affixed to a permanent site.

Watercourse means a lake, river, creek, stream, wash, channel, or other topographic feature on or over which waters flow at least periodically. Watercourse includes specifically designated areas in which substantial flood damage may occur.

Article 3. General Provisions

Section A. Lands to Which This Ordinance Applies

This ordinance shall apply to all areas of special flood hazard (SFHAs) within the jurisdiction of Pike County, Indiana as identified in Article 3, Section B, including any additional areas of special flood hazard annexed by Pike County, Indiana.

Section B. Basis for Establishing the Areas of Special Flood Hazard

(1) The regulatory flood elevation, floodway, and fringe limits for each of the SFHAs within the jurisdiction of Pike County delineated as an "A Zone" on the Pike County, Indiana and

Incorporated Areas FIRM, dated September 17, 2014, as well as any subsequent updates, amendments, or revisions, prepared by the Federal Emergency Management Agency with the most recent date, shall be according to the best available flood layer provided by the Indiana Department of Natural Resources, provided the upstream drainage area from the subject site is greater than one square mile. Whenever a party disagrees with the best available flood layer, the party needs to replace existing data with better data that meets current engineering standards. To be considered, this data must be submitted to the Indiana Department of Natural Resources for review and subsequently approved.

(2) In the absence of a published FEMA map, or absence of identification on a FEMA map, the regulatory flood elevation, floodway, and fringe limits of any watercourse in the community's known flood prone areas shall be according to the best available flood layer, as provided by the Indiana Department of Natural Resources, provided the upstream drainage area from the subject site is greater than one square mile.

(3) Upon issuance of a Letter of Final Determination (LFD), any more restrictive data in the new (not yet effective) mapping/study shall be utilized for permitting and construction (development) purposes, replacing all previously effective less restrictive flood hazard data provided by FEMA.

Section C. Establishment of Floodplain Development Permit

A Floodplain Development Permit shall be required in conformance with the provisions of this ordinance prior to the commencement of any development activities in areas of special flood hazard.

Section D. Compliance

(1) No structure shall hereafter be located, extended, converted, or structurally altered within the SFHA without full compliance with the terms of this ordinance and other applicable regulations.

(2) Where an existing or proposed structure or other development is affected by multiple flood zones, multiple base flood elevations, or both, the development activity must comply with the provisions of this ordinance applicable to the most restrictive flood zone and the most conservative (highest) base flood elevation affecting any part of the existing or proposed structure; or for other developments, affecting any part of the area of the development.

(3) No land or stream within the SFHA shall hereafter be altered without full compliance with the terms of this ordinance and other applicable regulations.

Section E. Abrogation and Greater Restrictions

This ordinance is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this ordinance and another conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

Section F. Discrepancy between Mapped Floodplain and Actual Ground Elevations

(1) In cases where there is a discrepancy between the mapped floodplain (SFHA) with base flood elevations provided (riverine or lacustrine Zone AE) on the FIRM and the actual ground elevations, the elevation provided on the profiles or table of stillwater elevations shall govern.

(2) If the elevation of the site in question is below the base flood elevation, that site shall be included in the SFHA and regulated accordingly.

(3) If the natural grade elevation of the site in question is at or above the base flood elevation and a LOMA or LOMR-FW is obtained, the floodplain regulations will not be applied, provided the LOMA or LOMR-FW is not subsequently superseded or invalidated.

Section G. Interpretation

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

(1) Considered as minimum requirements;

(2) Liberally construed in favor of the governing body; and

(3) Deemed neither to limit nor repeal any other powers granted under state statutes.

Section H. Warning and Disclaimer of Liability

The degree of flood 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 can and will occur on rare occasions. Therefore, this ordinance does not create any liability on the part of Pike County, the Indiana Department of Natural Resources, or the State of Indiana for any flood damage that results from reliance on this ordinance or any administrative decision made lawfully thereunder.

Section I. Penalties for Violation

Failure to obtain a Floodplain Development Permit in the SFHA or failure to comply with the requirements of a Floodplain Development Permit or conditions of a variance shall be deemed to be a violation of this ordinance. All violations shall be considered a common nuisance and shall be punishable by a fine not exceeding $2,500.00.

(1) A separate offense shall be deemed to occur for each day the violation continues to exist.

(2) The Floodplain Administrator shall inform the owner that any such violation is considered a willful act to increase flood damages and therefore may cause coverage by a Standard Flood Insurance Policy to be suspended.

(3) Nothing herein shall prevent the 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.

Article 4. Administration

Section A. Designation of Administrator

The Pike County Board of Commissioners hereby appoints the Emergency Management Director to administer and implement the provisions of this ordinance and is herein referred to as the Floodplain Administrator.

Section B. Floodplain Development Permit and Certification Requirements

An application for a floodplain development permit shall be made to the Floodplain Administrator for all development activities located wholly within, partially within, or in contact with a special flood hazard area. Such application shall be made by the owner of the property or his/her authorized agent, herein referred to as the applicant, prior to work commencing, on a form furnished for that purpose. Such applications shall include, but not be limited to, plans drawn to scale showing the nature, location, dimensions, and elevations of the area in question, existing or proposed structures, earthen fill, storage of materials or equipment, drainage facilities, and the location of the foregoing. Specifically, the following information is required:

(1) Application Stage

a) A description of the proposed development.

b) Location of the proposed development sufficient to accurately locate property and structure(s) in relation to existing roads and streams.

c) A legal description of the property site.

d) For the reconstruction, rehabilitation, or improvement of an existing structure, or an addition to an existing building, a detailed quote and description of the total work to be completed, including but not limited to, interior work, exterior work, and labor, as well as a certified valuation of the existing (pre-improved or pre-damaged) structure.

e) A site development plan showing existing and proposed development locations and existing and proposed land grades.

f) Verification of a connection to either a public sewer system or to an approved on-site septic system is available and approved by the respective regulatory agency for proposed structures to be equipped with a restroom, kitchen or other facilities requiring disposal of wastewater.

g) Plans showing the elevation of the top of the planned lowest floor (including basement) of all proposed structures in Zones A and AE. Elevations should be in NAVD 88.

h) Plans showing the elevation (in NAVD 88) to which any non-residential structure will be floodproofed.

i) Plans showing location and specifications for flood openings for any proposed structure with enclosed areas below the flood protection grade.

j) Plans showing materials to be used below the flood protection grade for any proposed structure are flood resistant.

k) Plans showing how any proposed structure will be anchored to resist flotation or collapse.

l) Plans showing how any electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities are designed and/or located. Elevations should be in NAVD 88.

m) Description of the extent to which any watercourse will be altered or relocated as a result of proposed development. A hydrologic and hydraulic engineering analysis is required, and any watercourse changes must be submitted to Department of Natural Resources for approval. Once Department of Natural Resources approval is obtained, a FEMA Conditional Letter of Map Revision must be obtained prior to construction. (See Article 4, Section C (8) and Article 4, Section E for additional information.)

n) Any additional information, as requested by the Floodplain Administrator, which may be necessary to determine the disposition of a proposed development or structure with respect to the requirements of this ordinance.

(2) Construction Stage

a) Upon establishment of the lowest floor of an elevated structure or structure constructed on fill, it shall be the duty of the applicant to submit to the Floodplain Administrator an elevation certificate for the building under construction. The Floodplain Administrator shall review the elevation certificate. Any deficiencies detected during the review shall be corrected by the applicant before work is allowed to continue. Failure to submit the elevation certificate or failure to make said corrections required hereby shall be cause to issue a stop-work order for the project. The elevation certificate shall be prepared by or under the direct supervision of a registered land surveyor or professional engineer and certified by the same.

(3) Finished Construction

a) Upon completion of construction of any structure requiring certification of elevation, an elevation certificate which depicts the "as-built" lowest floor elevation and other applicable elevation data is required to be submitted by the applicant to the Floodplain Administrator. The elevation certificate shall be prepared by or under the direct supervision of a registered land surveyor or professional engineer and certified by the same.

b) Upon completion of construction of an elevated structure constructed on fill, a fill report is required to be submitted to the Floodplain Administrator to verify the required standards were met, including compaction.

c) Upon completion of construction of a floodproofing measure, a floodproofing certificate is required to be submitted by the applicant to the Floodplain Administrator. The floodproofing certificate shall be prepared by or under the direct supervision of a registered professional engineer or architect and certified by same.

Section C. Duties and Responsibilities of the Floodplain Administrator

The Floodplain Administrator and/or designated staff are hereby authorized and directed to enforce the provisions of this ordinance. The administrator is further authorized to render interpretations of this ordinance, which are consistent with its spirit and purpose.

Duties and responsibilities of the Floodplain Administrator shall include, but are not limited to:

(1) Enforce the provisions of this ordinance.

(2) Evaluate applications for permits to develop in special flood hazard areas to ensure the permit requirements of this ordinance have been satisfied.

(3) Interpret floodplain boundaries and provide flood hazard and flood protection elevation information.

(4) Issue permits to develop in special flood hazard areas when the provisions of these regulations have been met or refuse to issue the same in the event of noncompliance.

(5) Advise applicant that additional Federal, State and/or local permits may be required. If specific Federal, State and/or local permits are known, require that copies of such permits be provided and maintained on file with the floodplain development permit.

(6) Conduct substantial damage determinations to determine whether existing structures, damaged from any source and in special flood hazard areas, must meet the development standards of these regulations.

(7) For applications to improve structures, including alterations, movement, enlargement, replacement, repair, change of occupancy, additions, rehabilitations, renovations, substantial improvements, repairs of substantial damage, and any other improvement of or work on such buildings and structures, the Floodplain Administrator shall:

a) Verify and document the market value of the pre-damaged or pre-improved structure.

b) Compare the cost to perform the improvement; or the cost to repair a damaged building to its pre-damaged condition; or the combined costs of improvements and repair, if applicable, to the market value of the pre-damaged or pre-improved structure. The cost of all work must be included in the project costs, including work that might otherwise be considered routine maintenance. Items/activities that must be included in the cost shall be in keeping with guidance published by FEMA to ensure compliance with the NFIP and to avoid any conflict with future flood insurance claims of policyholders within the community.

c) Determine and document whether the proposed work constitutes substantial improvement or repair of substantial damage. The determination requires evaluation of previous permits issued for improvements and repairs as specified in the definition of "substantial improvement." For proposed work to repair damage caused by flood, the determination requires evaluation of previous permits issued to repair flood-related damage as specified in the definition of "substantial damage."

d) Notify the applicant if it is determined that the work constitutes substantial improvement or repair of substantial damage and that compliance with the applicable general and specific standards in Article 5 of this ordinance is required.

(8) Notify adjacent communities and the State NFIP Coordinator prior to any alteration or relocation of a watercourse and submit copies of such notifications to FEMA.

(9) Ensure that construction authorization has been granted by the Indiana Department of Natural Resources for all development projects subject to Article 5, Section A (1), Section A (3) (a) and

Section A (4) of this ordinance. Maintain a record of such authorization (either a copy of the actual permit/authorization or floodplain analysis/regulatory assessment).

(10) Verify the upstream drainage area of any proposed development site near any watercourse not identified on a FEMA map to determine if Article 4, Section C (9) is applicable.

(11) Assure that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished.

(12) Verify and record the actual elevation of the lowest floor (including basement) of all new or substantially improved structures, in accordance with Article 4, Section B.

(13) Verify and record the actual elevation to which any new or substantially improved structures have been floodproofed in accordance with Article 4, Section B.

(14) Make on-site inspections of projects in accordance with Article 4, Section D.

(15) Coordinate with insurance adjusters prior to permitting any proposed work to bring any flood-damaged structure covered by a standard flood insurance policy into compliance (either a substantially damaged structure or a repetitive loss structure) to ensure eligibility for ICC funds.

(16) Ensure that an approved connection to a public sewer system or an approved on-site septic system is planned for any structures (residential or non-residential) to be equipped with a restroom, kitchen, or other facilities requiring disposal of wastewater.

(17) Provide information, testimony, or other evidence as needed during variance hearings.

(18) Serve notices of violations, issue stop-work orders, revoke permits and take corrective actions in accordance with Article 4, Section D.

(19) Maintain for public inspection and furnish upon request local permit documents, damaged structure inventories, substantial damage determinations, regulatory flood data, SFHA maps, Letters of Map Change (LOMC), copies of Department of Natural Resources permits, letters of authorization, and floodplain analysis and regulatory assessments (letters of recommendation), federal permit documents, and "as-built" elevation and floodproofing data for all buildings constructed subject to this ordinance in accordance with Article 4, Section D.

(20) Coordinate map maintenance activities and associated FEMA follow-up in accordance with Article 4, Section E.

(21) Utilize and enforce all Letters of Map Change (LOMC) or Physical Map Revisions (PMR) issued by FEMA for the currently effective SFHA maps of the community.

(22) Request any additional information which may be necessary to determine the disposition of a proposed development or structure with respect to the requirements of this ordinance.

Section D. Administrative Procedures

(1) Inspections of Work in Progress. As the work pursuant to a permit progresses, the Floodplain Administrator shall make as many inspections of the work as may be necessary to ensure that the work is being done according to the provisions of the local ordinance and terms of the permit. In

exercising this power, the administrator has the right, upon presentation of proper credentials, to enter any premises within the territorial jurisdiction at any reasonable hour for the purposes of inspection or other enforcement action.

(2) Stop Work Orders.

a) Upon notice from the Floodplain Administrator, work on any building, structure or premises that is being done contrary to the provisions of this ordinance shall immediately cease.

b) Such notice shall be in writing and shall be given to the owner of the property, his/her agent, or to the person doing the work and shall state the conditions under which work may be resumed.

(3) Revocation of Permits.

a) The Floodplain Administrator may revoke a permit or approval, issued under the provisions of this ordinance, in cases where there has been any false statement or misrepresentation as to the material fact in the application or plans on which the permit or approval was based.

b) The Floodplain Administrator may revoke a permit upon determination by the Floodplain Administrator that the development for which the permit was issued is in violation of, or not in conformity with, the provisions of this ordinance.

(4) Floodplain Management Records.

a) Regardless of any limitation on the period required for retention of public records, records of actions associated with the administration of this ordinance shall be kept on file and maintained under the direction of the Floodplain Administrator in perpetuity. These records include permit applications; plans; certifications; Flood Insurance Rate Maps; Letters of Map Change; records of issuance of permits and denial of permits; determinations of whether proposed work constitutes substantial improvement or repair of substantial damage; required design certifications and documentation of elevations required by this ordinance; notifications to adjacent communities, FEMA, and the state related to alterations of watercourses; assurances that the flood carrying capacity of altered watercourses will be maintained; documentation related to appeals and variances, including justification for issuance or denial; and records of enforcement actions taken pursuant to this ordinance.

b) These records shall be available for public inspection at 100 S 4th Street Petersburg, IN 47567.

(5) Periodic Inspection. Once a project is completed, periodic inspections may be conducted by the Floodplain Administrator to ensure compliance. The Floodplain Administrator shall have the right, upon presentation of proper credentials, to enter any premises within the territorial jurisdiction of the department at any reasonable hour for the purposes of inspection or other enforcement action.

Section E. Map Maintenance Activities

To meet NFIP minimum requirements to have flood data reviewed and approved by FEMA, and to ensure that Pike County's flood maps, studies and other data identified in Article 3, Section B accurately represent

flooding conditions so appropriate floodplain management criteria are based on current data, the following map maintenance activities are identified:

(1) Requirement to Submit New Technical Data

a) For all development proposals that impact floodway delineations or base flood elevations, the community shall ensure that technical data reflecting such changes be submitted to FEMA within six months of the date such information becomes available. These development proposals include:

i. Floodway encroachments that increase or decrease base flood elevations or alter floodway boundaries.

ii. Fill sites to be used for the placement of proposed structures where the applicant desires to remove the site from the special flood hazard area.

iii. Alteration of watercourses that result in a relocation or elimination of the special flood hazard area, including the placement of culverts, and subdivision or large-scale development proposals requiring the establishment of base flood elevations.

b) It is the responsibility of the applicant to have required technical data for a Conditional Letter of Map Revision or Letter of Map Revision and submitted to FEMA. The Indiana Department of Natural Resources will review the submittals as part of a partnership with FEMA. The submittal should be mailed to the Indiana Department of Natural Resources at the address provided on the FEMA form (MT-2) or submitted through the online Letter of Map Change website. Submittal and processing fees for these map revisions shall be the responsibility of the applicant.

c) The Floodplain Administrator shall require a Conditional Letter of Map Revision prior to the issuance of a floodplain development permit for proposed floodway encroachments that increase the base flood elevation.

d) Floodplain development permits issued by the Floodplain Administrator shall be conditioned upon the applicant obtaining a Letter of Map Revision from FEMA for any development proposal subject to this section.

(2) Right to Submit New Technical Data

The Floodplain Administrator may request changes to any of the information shown on an effective map that does not impact floodplain or floodway delineations or base flood elevations, such as labeling or planimetric details. Such a submission shall include appropriate supporting documentation made in writing by the Floodplain Administrator of Pike County and may be submitted to FEMA at any time.

(3) Annexation / Detachment

Upon occurrence, the Floodplain Administrator shall notify FEMA in writing whenever the boundaries of Pike County have been modified by annexation or the community has assumed authority over an area, or no longer has authority to adopt and enforce floodplain management regulations for a particular area. In order that the Pike County, Indiana and Incorporated Areas Flood Insurance Rate Map accurately represent the Pike County boundaries, include within such notification a copy of a map of Pike County suitable for reproduction, clearly showing the new

corporate limits or the new area for which Pike County has assumed or relinquished floodplain management regulatory authority.

Section F. Variance Procedures

(1) The Board of Commissioners shall hear and decide appeals and requests for variances from requirements of this ordinance.

(2) The board shall hear and decide appeals when it is alleged an error in any requirement, decision, or determination is made by the Floodplain Administrator in the enforcement or administration of this ordinance. Any person aggrieved by the decision of the board may appeal such decision to the Pike County Circuit Court.

(3) In considering such applications, the board shall review all technical evaluations, all relevant factors, all standards specified in other sections of this ordinance, and:

a) the danger to life and property due to flooding or erosion damage.

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

c) the susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner.

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

e) the necessity of a waterfront location, where applicable.

f) the compatibility of the proposed use with existing and anticipated development.

g) the availability of alternative locations for the proposed use which are not subject to flooding or erosion damage.

h) the safety of access to the property in times of flood for ordinary and emergency vehicles.

i) the expected height, velocity, duration, rate of rise, and sediment transport of the floodwater at the site.

j) 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, and streets and bridges.

(4) A written report addressing each of the above factors shall be submitted with the application for a variance.

(5) Variances from the provisions of this ordinance shall only be granted when the board can make positive findings of fact based on evidence submitted at the hearing for the following:

a) A showing of good and sufficient cause.

b) A determination that failure to grant the variance would result in exceptional hardship as defined in Article 2.

c) A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud or victimization of the public, or conflict with existing laws or ordinances.

(6) No variance for a residential use within a floodway subject to Article 5, Section A (1), Section A (3) (a) or Section A (4) of this ordinance may be granted.

(7) Any variance granted in a floodway subject to Article 5, Section A (1), Section A (3) (a) or Section A (4) will require a permit from the Indiana Department of Natural Resources. Variances shall not be issued within any designated regulatory floodway if any increase in flood levels during the base flood discharge would result.

(8) Variances to the Provisions for Flood Hazard Reduction of Article 5 may be granted only when a new structure is to be located on a lot of one-half acre or less in size, contiguous to and surrounded by lots with existing structures constructed below the flood protection grade.

(9) Variances may be issued for the repair or rehabilitation of "historic structures" upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a "historic structure" and the variance is the minimum to preserve the historic character and design of the structure.

(10) Variances may be issued for new construction, substantial improvements, and other development necessary for the conduct of a functionally dependent use.

(11) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

(12) Upon consideration of the factors listed above and the purposes of this ordinance, the appeal board may attach such conditions to the granting of variances as it deems necessary to further the purposes of this ordinance.

(13) Any applicant to whom a variance is granted shall be given written notice specifying the difference between the Flood Protection Grade and the elevation to which the lowest floor is to be built and stating that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

(14) The Floodplain Administrator shall maintain the records of appeal actions and report any variances to the Federal Emergency Management Agency or the Indiana Department of Natural Resources upon request.

Article 5. Provisions for Flood Hazard Reduction

Section A. Floodplain Status Standards

(1) Floodways (Riverine)

Located within SFHAs, established in Article 3, Section B, are areas designated as floodways. The floodway is an extremely hazardous area due to the velocity of floodwater, which carries debris, potential projectiles, and erosion potential. Under the provisions of the Flood Control Act (IC 14-28-1)

a permit for construction in a floodway from the Indiana Department of Natural Resources is required prior to the issuance of a local building permit for any excavation, deposit, construction, or obstruction activity located in the floodway. This includes land preparation activities such as filling, grading, clearing, and paving undertaken before the actual start of construction of the structure. General licenses and exemptions to the requirements of the Flood Control Act (IC 14-28-1 and 312 IAC 10) may apply to qualified additions/improvements to existing lawful residential structures, rural bridges, logjam removals, wetland restoration, utility line crossings, outfall projects, creek rock removal, and prospecting.

a) If the site is in a regulatory floodway as established in Article 3, Section B, the Floodplain Administrator shall require the applicant to forward the application, along with all pertinent plans and specifications, to the Indiana Department of Natural Resources and apply for approval for construction in a floodway, provided the activity does not qualify for a general license or exemption (IC 14-28-1 or 312 IAC 10).

b) No action shall be taken by the Floodplain Administrator until approval has been granted by the Indiana Department of Natural Resources for construction in a floodway or evidence is provided by an applicant that the development meets specified criteria to qualify for a general license or exemption to the requirements of the Flood Control Act. The Floodplain Development Permit shall meet the provisions contained in this article.

c) The Floodplain Development Permit cannot be less restrictive than an approval issued for construction in a floodway issued by the Indiana Department of Natural Resources, or the specified criteria used to qualify for a general license or exemption to the Flood Control Act for a specific site/project. However, a community's more restrictive regulations (if any) shall take precedence.

d) In floodway areas identified on the FIRM, development shall cause no increase in flood levels during the occurrence of the base flood discharge without first obtaining a Conditional Letter of Map Revision and meeting the requirements of Article 4, Section E (1). A Conditional Letter of Map Revision cannot be issued for development that would cause an increase in flood levels affecting a structure and such development should not be permitted.

e) In floodway areas identified by the Indiana Department of Natural Resources through detailed or approximate studies but not yet identified on the effective FIRM as floodway areas, the total cumulative effect of the proposed development, when combined with all other existing and anticipated development, shall not adversely affect the efficiency of or unduly restrict the capacity of the floodway. This adverse effect is defined as an increase in the elevation of the regulatory flood of at least fifteen-hundredths (0.15) of a foot as determined by comparing the regulatory flood elevation under the project condition to that under the natural or pre-floodway condition, as proven with hydraulic analyses.

f) For all projects involving channel modifications or fill (including levees) the County shall submit the data and request that the Federal Emergency Management Agency revise the regulatory flood data per mapping standard regulations found in 44 CFR § 65.12.

(2) Fringe (Riverine)

If the site is in the fringe (either identified on the FIRM or identified by the Indiana Department of Natural Resources through detailed or approximate studies and not identified on a FIRM), the Floodplain Administrator may issue the local Floodplain Development Permit provided the provisions contained in this article have been met.

(3) SFHAs without Established Base Flood Elevation and/or Floodways/Fringes (Riverine)

a) Drainage area upstream of the site is greater than one square mile:

i. If the site is in an identified floodplain where the limits of the floodway and fringe have not yet been determined, and the drainage area upstream of the site is greater than one square mile, the Floodplain Administrator shall require the applicant to forward the application, along with all pertinent plans and specifications, to the Indiana Department of Natural Resources for review and comment.

ii. No action shall be taken by the Floodplain Administrator until written approval from the Indiana Department of Natural Resources (approval for construction in a floodway, letter of authorization, or evidence of general license qualification) or a floodplain analysis/regulatory assessment citing the one-percent annual chance flood elevation and the recommended Flood Protection Grade has been received from the Indiana Department of Natural Resources.

iii. Once the Floodplain Administrator has received the proper written approval, evidence of general license qualification, or floodplain analysis/regulatory assessment approving the proposed development from the Indiana Department of Natural Resources, a Floodplain Development Permit may be issued, provided the conditions of the Floodplain Development Permit are not less restrictive than the conditions received from the Indiana Department of Natural Resources and the provisions contained in this section have been met.

b) Drainage area upstream of the site is less than one square mile:

i. If the site is in an identified floodplain where the limits of the floodway and fringe have not yet been determined and the drainage area upstream of the site is less than one square mile, the Floodplain Administrator shall require the applicant to provide an engineering analysis showing the limits of the floodplain and one-percent annual chance flood elevation for the site.

ii. Upon receipt, the Floodplain Administrator may issue the local Floodplain Development Permit, provided the provisions contained in this article have been met.

(4) SFHAs not Identified on a Map

a) If a proposed development site is near a waterway with no SFHA identified on a map, the Floodplain Administrator shall verify the drainage area upstream of the site. If the drainage area upstream of the site is verified as being greater than one square mile, the Floodplain Administrator shall require the applicant to forward the application, along with all pertinent

plans and specifications, to the Indiana Department of Natural Resources for review and comment.

b) No action shall be taken by the Floodplain Administrator until written approval from the Indiana Department of Natural Resources (approval for construction in a floodway, letter of authorization, or evidence of general license qualification) or a floodplain analysis/regulatory assessment citing the one-percent annual chance flood elevation and the recommended Flood Protection Grade has been received from the Indiana Department of Natural Resources.

c) Once the Floodplain Administrator has received the proper written approval, evidence of general license qualification, or floodplain analysis/regulatory assessment approving the proposed development from the Indiana Department of Natural Resources, a Floodplain Development Permit may be issued, provided the conditions of the Floodplain Development Permit are not less restrictive than the conditions received from the Indiana Department of Natural Resources and the provisions contained in this article have been met.

Section B. General Standards

In all areas of special flood hazard, the following provisions are required:

(1) All new construction, reconstruction or repairs made to a repetitive loss structure, and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.

(2) New construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage below the FPG.

(3) New construction and substantial improvements must incorporate methods and practices that minimize flood damage.

(4) Electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities shall be located at/above the FPG for residential structures. Electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities shall be located at/above the FPG or designed to prevent water from entering or accumulating within the components below the FPG for non-residential structures. Water and sewer pipes, electrical and telephone lines, submersible pumps, and other waterproofed service facilities may be located below the FPG.

(5) New and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwater into the system.

(6) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwater into the system.

(7) On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.

(8) Any alteration, repair, reconstruction, or improvements to a structure that is in compliance with the provisions of this ordinance shall meet the requirements of "new construction" as contained in this ordinance.

(9) Base flood elevation data shall be provided for subdivision proposals and other proposed development (including manufactured home parks and subdivisions), which are greater than fifty (50) lots or five (5) acres, whichever is less.

(10) Where an existing or proposed structure or other development is affected by multiple flood zones, multiple base flood elevations, or both, the development activity must comply with the provisions of this ordinance applicable to the most restrictive flood zone and the highest base flood elevation affecting any part of the existing or proposed structure; or for other developments, affecting any part of the area of the development.

(11) Fill projects that do not involve a structure must be protected against erosion and scour during flooding by vegetative cover, riprap, or bulk heading. If vegetative cover is used, the slopes shall be no steeper than 3 feet horizontal to 1 foot vertical.

Section C. Specific Standards

In all areas of special flood hazard where base flood elevation data or flood depths have been provided, as set forth in Article 3, Section B, the following provisions are required:

(1) **Building Protection Requirement**
In addition to the general standards described in Article 5, Section B, structures located in the SFHA shall be protected from flood damage below the FPG. This building protection requirement applies to the following situations:

a) Construction or placement of a residential structure.

b) Construction or placement of a non-residential structure.

c) Addition or improvement made to an existing structure where the cost of the addition or improvement equals or exceeds 50% of the value of the existing structure (excluding the value of the land). An addition and/or improvement project that is continuous in scope or time is considered as one project for permitting purposes.

d) Reconstruction or repairs made to a damaged structure where the costs of restoring the structure to its before damaged condition equals or exceeds 50% of the market value of the structure (excluding the value of the land) before damage occurred. The costs of any proposed additions or improvements beyond restoring the damaged structure to its before damaged condition must be included in the cost.

e) Installing a manufactured home on a new site or a new manufactured home on an existing site.

f) Installing a travel trailer or recreational vehicle on a site for more than 180 days.

g) Reconstruction or repairs made to a repetitive loss structure.

h) Addition or improvement made to any existing structure with a previous repair, addition or improvement constructed since the community's first floodplain ordinance.

(2) **Residential Construction**

a) New construction or substantial improvement of any residential structures shall meet provisions described in Article 5, Section A and applicable general standards described in Article 5, Section B.

b) In **Zone A and Zone AE,** new construction or substantial improvement of any residential structure shall have the lowest floor, including basement, at or above the FPG. Should solid foundation perimeter walls be used to elevate a structure, openings sufficient to facilitate the unimpeded movements of floodwater shall be provided in accordance with the standards of Article 5, Section C (2) (c). Should fill be used to elevate a structure, the standards of Article 5, Section C (2) (d) must be met.

c) **Fully enclosed areas** formed by foundation and other exterior walls below the flood protection grade shall meet the following requirements:

i. Designed to preclude finished living space and designed to allow for the automatic entry and exit of floodwater to equalize hydrostatic flood forces on exterior walls. Flood openings must be designed and installed in compliance with criteria set out in FEMA Technical Bulletin 1. Flood openings must be designed and certified by a registered design professional (requires supporting engineering certification or make/model specific ICC-ES Report), or meet the following criteria for non-engineered flood openings:

1. Provide a minimum of two openings on different sides of an enclosure. If more than one enclosed area is present, each must have openings on exterior walls (having a total net area of not less than one square inch for every one square foot of enclosed area).

2. The bottom of all openings shall be no more than one foot above the higher of the final interior grade (or floor) and the finished exterior grade immediately under each opening.

3. If the floor of the enclosure is below the BFE, the openings must be located wholly below the BFE.

4. If the floor of the enclosure is at or above the BFE, but below the FPG, the openings must be located wholly below the FPG.

5. Doors and windows do not qualify as openings.

6. Openings may be equipped with screens, louvers, valves, or other coverings or devices, provided they permit the automatic flow of floodwater in both directions.

ii. The floor of such enclosed areas must be at or above grade on at least one side.

d) A structure may be constructed on fill in accordance with the following:

i. Fill shall be placed in layers no greater than 1 foot deep before compacting to 95% of the maximum density obtainable with either the Standard or Modified Proctor Test method. The results of the test showing compliance shall be retained in the permit file.

ii. Fill shall extend 10 feet beyond the foundation of the structure before sloping below the BFE.

iii. Fill shall be protected against erosion and scour during flooding by vegetative cover, riprap, or bulk heading. If vegetative cover is used, the slopes shall be no steeper than 3 feet horizontal to 1 foot vertical.

iv. Fill shall not adversely affect the flow of surface drainage from or onto neighboring properties.

e) A structure may be constructed using a stem wall foundation (also called chain wall, raised-slab-on-grade, and slab-on-stem-wall-with-fill). Any backfilled stem wall foundation must be backfilled with compacted structural fill, concrete, or gravel that supports the floor slab. No flood openings are required for this type of construction.

(3) **Non-Residential Construction**

a) New construction or substantial improvement of any non-residential structures (excludes accessory structures, if compliant under Article 5, Section C (5)) shall meet provisions described in Article 5, Section A and applicable general standards described in Article 5, Section B.

b) In **Zone A and Zone AE**, new construction, or substantial improvement of any commercial, industrial, or non-residential structure (excludes accessory and agricultural structures, if compliant under Article 5, Section C (5)) shall either have the lowest floor, including basement, elevated to or above the FPG or be floodproofed to or above the FPG. Should solid foundation perimeter walls be used to elevate a structure, openings sufficient to facilitate the unimpeded movements of floodwater shall be provided in accordance with the standards of Article 5, Section C (2) (c). Should fill be used to elevate a structure, the standards of Article 5, Section C (2) (d) must be met.

c) A nonresidential or accessory structure may be floodproofed in accordance with the following:

i. A registered professional engineer or architect shall certify that the structure has been designed so that, below the FPG, the structure and attendant utility facilities are watertight and capable of resisting the effects of the regulatory flood. The structure design shall consider flood velocities, duration, rate of rise, hydrostatic pressures, and impacts from debris or ice. Such certification shall be provided to the Floodplain Administrator.

(4) **Manufactured Homes and Recreational Vehicles**

a) These requirements apply to all manufactured homes to be placed on a site in the SFHA:

i. The manufactured home shall be elevated on a permanent foundation such that the lowest floor shall be at or above the FPG and securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

ii. Fully enclosed areas formed by foundation and other exterior walls below the FPG shall be designed to preclude finished living space and designed to allow for the entry and exit of floodwater to automatically equalize hydrostatic flood forces on exterior walls as required for elevated structures in Article 5, Section C (2) (c).

iii. Vinyl or aluminum skirting not attached to the frame or foundation of a manufactured home are not required to have openings.

b) Recreational vehicles placed on a site in the SFHA shall either:

i. Be on site for less than 180 days and be fully licensed and ready for use on a public highway (defined as being on its wheels or jacking system, being attached to the site only by quick disconnect utilities and security devices, and having no permanently attached additions), or

ii. Meet the requirements for "manufactured homes" as stated earlier in this section.

(5) Accessory Structures

Within SFHAs, new construction or placement of an accessory structure must meet the following standards:

a) Shall have a floor area of 400 square feet or less.

b) Use shall be limited to parking of vehicles and limited storage.

c) Shall not be used for human habitation.

d) Shall be constructed of flood resistant materials below BFE.

e) Shall be constructed and placed on the lot to offer the minimum resistance to the flow of floodwater.

f) Shall be firmly anchored to prevent flotation.

g) Service facilities such as electrical and heating equipment shall be elevated or floodproofed to or above the BFE.

h) Shall be designed to allow for the entry and exit of floodwater to automatically equalize hydrostatic flood forces on exterior walls as required for elevated structures in Article 5, Section C (2) (c).

i) Shall not have subsequent additions or improvements that would preclude the structure from its continued designation as an accessory structure.

(6) **Free-standing Pavilions, Gazebos, Decks, Carports, and Similar Development**

Within SFHAs, new construction or placement of free-standing pavilions, gazebos, decks, carports, and similar development must meet the following standards:

a) Shall have open sides (having not more than one rigid wall).

b) Shall be anchored to prevent flotation or lateral movement.

c) Shall be constructed of flood resistant materials below the FPG.

d) Any electrical, heating, plumbing and other service facilities shall be located at/above the FPG.

e) Shall not have subsequent additions or improvements that would preclude the development from its continued designation as a free-standing pavilion, gazebo, carport, or similar open-sided development.

(7) **Above Ground Gas or Liquid Storage Tanks**

Within SFHAs, all newly placed or replacement above ground gas or liquid storage tanks shall meet the requirements for a non-residential structure as required in Article 5, Section C (3).

Section D. Standards for Subdivision and Other New Developments

(1) All subdivision proposals and all other proposed new developments shall be consistent with the need to minimize flood damage.

(2) All subdivision proposals and all other proposed new developments shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage.

(3) All subdivision proposals and all other proposed new developments shall have adequate drainage provided to reduce exposure to flood hazards.

(4) In all areas of special flood hazard where base flood elevation data are not available, the applicant shall provide a hydrologic and hydraulic engineering analysis that generates base flood elevations for all subdivision proposals and all other proposed new development (including manufactured home parks and subdivisions), which is greater than fifty (50) lots or five (5) acres, whichever is less.

Section E. Standards for Critical Facilities

Construction of new critical facilities shall be, to the extent possible, located outside the limits of the SFHA. Construction of new critical facilities shall be permissible within the SFHA if no feasible alternative site is

available. Critical facilities constructed within the SFHA shall have the lowest floor elevated to or above the FPG at the site. Floodproofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into floodwater. Access routes elevated to or above the FPG shall be provided to all critical facilities to the greatest extent possible.

Article 6. Legal Status Provisions

Section A. Severability

If any section, subsection, sentence, clause, or phrase of these regulations is, for any reason, declared by the courts to be unconstitutional or invalid, such decision shall not affect the validity of the regulations as a whole, or any part thereof, other than the part so declared.

Section B. Effective Date

This ordinance shall be in full force and effect upon adoption.

Passed by the Board of Commissioners of Pike County, Indiana on the 1st day of June, 2026.

Board of Commissioners
Pike County, Indiana

Mark Flint, President

Ryan Coleman, Vice-President

Jeff Nelson

Attest: _____
Judith Gumbel, Auditor