

ORDINANCE NO. _____

**AN ORDINANCE OF THE TOWNSHIP OF LOWER
MAKEFIELD, BUCKS COUNTY, PENNSYLVANIA
CREATING CHAPTER 114, FLOODPLAINS TO PROVIDE
FOR REGULATIONS PERTAINING TO FLOODPLAINS**

WHEREAS, with the passage of the Flood Plain Management Act, 32 P.S. § 679.101 *et seq.*, the General Assembly required municipalities to adopt floodplain management regulations in order to provide for and encourage local administration and management of floodplains; and

WHEREAS, Section 66516 of the Second Class Township Code provides that the corporate powers of the Board of Supervisors of Lower Makefield Township include the ability to plan for the development of the Township through zoning, subdivision, and land development regulations under the Municipalities Planning Code (“MPC”); and

WHEREAS, Section 10601 of the MPC provides that the governing body of each municipality may enact, amend and repeal zoning ordinances to accomplish any of the purposes of the MPC; and

WHEREAS, the purposes enumerated in Section 10105 of the MPC include promoting safety, health and morals, accomplishing coordinated development, improving governmental processes and functions, guiding uses of land and structures and promoting the preservation of natural and historic resources and prime agricultural land, and the Board of Supervisors of Lower Makefield Township believes this ordinance will accomplish those goals; and

WHEREAS, the Second Class Township Code, at Section 66601, provides that the Board of Supervisors (“Board”) may adopt ordinances and, by the enactment of subsequent ordinances, the Board may amend, repeal, or revise existing ordinances; and

WHEREAS, the proposed amendments fulfill the Township’s obligation to protect the public health, safety, and welfare of Township citizens; and

WHEREAS, it is in the public interest of the residents of the Township for the Township to amend and update the Zoning Ordinance for clarity; and

WHEREAS, the proposed amendments have been advertised, considered, and reviewed in accordance with Section 10609 of the MPC and all other applicable law;

NOW THEREFORE, in consideration of the foregoing, be it **ENACTED** and **ORDAINED** by the Board of Supervisors of Lower Makefield Township, Bucks County, Pennsylvania, as follows:

- I. The Code of the Township of Lower Makefield is hereby AMENDED by CREATING Chapter 114, Floodplains and ADDING to it Sections 114-1, General provisions, 114-2, Administration, 114-3, Identification of floodplain areas, 114-4, Technical provisions, 114-5, Prohibited activities with no variance granted, 114-6, Existing structures in identified floodplain areas, and 114-7, Variances in the following manner:**

ARTICLE I General Provisions

§ 114-1 Definitions.

As used in this chapter, the following terms shall have the meanings indicated:

ACCESSORY BUILDING

See “building, accessory.”

ACCESSORY STRUCTURE

A structure on the same lot with, and of a nature customarily incidental and subordinate to, the principal structure.

ACCESSORY USE

See “use, accessory.”

BASE FLOOD

A flood which has a one-percent chance of being equaled or exceeded in any given year (also called the "one-hundred-year flood" or "one-percent annual chance flood").

BASE FLOOD DISCHARGE

The volume of water resulting from a base flood as it passes a given location within a given time, usually expressed in cubic feet per second (cfs).

BASE FLOOD ELEVATION (BFE)

The elevation shown on the Flood Insurance Rate Map (FIRM) for Zones AE, AH, A1-30 that indicates the water surface elevation resulting from a flood that has a one-percent or greater chance of being equaled or exceeded in any given year.

BASEMENT

Any area of the building having its floor below ground level on all sides.

BUILDING

A permanent structure having walls and a roof, used for the shelter or enclosure of persons, animals or property. The word "building" shall include any part thereof. Included shall be all manufactured homes and trailers to be used for human habitation.

BUILDING, ACCESSORY

A subordinate building located on the same lot as a principal building and clearly incidental and subordinate to the principal building. Any portion of a principal building devoted or intended to be devoted to an accessory use is not an accessory building.

DECLARATION OF LAND RESTRICTION (NON-CONVERSION AGREEMENT)

A form signed by the property owner to agree not to convert or modify in any manner that is inconsistent with the terms of the permit and these regulations, certain enclosures below the lowest floor of elevated buildings and certain accessory structures. The form requires the owner to record it on the property deed to inform future owners of the restrictions.

DEVELOPMENT

Any man-made change to improved or unimproved real estate including, but not limited to, the construction, reconstruction, renovation repair, expansion, or alterations of buildings or other structures; the placement of manufactured homes; streets and other paving; utilities; filling, grading and excavation; mining, dredging, or drilling operations; storage of equipment or materials; and the subdivision of land.

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 (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.

EXISTING STRUCTURE

A structure for which the "start of construction" commenced before July 16, 2014. "Existing structure" may also be referred to as "existing construction."

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).

FLOOD INSURANCE RATE MAP (FIRM)

The official map on which the Federal Emergency Management Agency has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

FLOOD INSURANCE STUDY (FIS)

The official report provided by the Federal Emergency Management Agency that includes flood profiles, the Flood Insurance Rate Map, the Flood Boundary and Floodway Map, and the water surface elevation of the base flood.

FLOODPLAIN AREA

A relatively flat or low land area which is subject to partial or complete inundation from an adjoining or nearby stream, river or watercourse; and/or any area subject to the unusual and rapid accumulation of surface waters from any source.

FLOODPROOFING

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

FLOODWAY

The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

FREEBOARD

An additional amount of height above the base flood elevation used as a factor of safety (e.g., two feet above the base flood) in determining the level at which a structure's lowest floor must be elevated or floodproofed to be in accordance with floodplain management regulations.

HIGHEST ADJACENT GRADE

The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

HISTORIC STRUCTURE

Any structure that is:

- (1) Listed individually in the National Register of Historic Places (a listing maintained by the Department of 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 the Pennsylvania Register of Historic Places.
- (4) Individually listed on the Lower Makefield Township Historic Building Inventory and/or shown on the Lower Makefield Township Historic Survey map.

IDENTIFIED FLOODPLAIN AREA

This term is an umbrella term that includes all of the areas within which the Board of Supervisors has selected to enforce floodplain regulations. It will always include the area identified as the Special Flood Hazard Area on the Flood Insurance Rate Maps and Flood Insurance Study, but may include additional areas identified by the Board of Supervisors. See § 114-19 and 114-20 for specifics on what areas the Board of Supervisors have included as Identified Floodplain Areas.

LOWEST FLOOR

The lowest floor of the lowest fully enclosed area (including basement). An unfinished, flood-resistant partially enclosed area, used solely for parking of vehicles, building access, and incidental storage, in an area other than a basement area is not considered the lowest floor of a building, provided that such space is not designed and built so that the structure is in violation of the applicable non-elevation design requirements of this chapter.

MANUFACTURED HOME

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. This term includes park trailers, travel trailers, recreational and other similar vehicles which are placed on a site for more than 180 consecutive days.

MANUFACTURED HOME PARK OR SUBDIVISION

A parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

MINOR REPAIR

The replacement of existing work with equivalent materials for the purpose of its routine maintenance and upkeep, but not including the cutting away of any wall, partition or portion thereof, the removal or cutting of any structural beam or bearing support, or the removal or change of any required means of egress, or rearrangement of parts of a structure affecting the exitway requirements; nor shall minor repairs include addition to, alteration of, replacement or relocation of any standpipe, water supply, sewer, drainage, drain leader, gas, oil, waste, vent, or similar piping, electric wiring, mechanical or other work affecting public health or general safety.

NEW CONSTRUCTION

Structures for which the start of construction commenced on or after July 16, 2014, and includes any subsequent improvements to such structures. Any construction started after September 30, 1977, and before July 16, 2014, is subject to the sections in effect at the time the permit was issued, provided the start of construction was within 180 days of permit issuance.

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 (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 floodplain management regulations adopted by a community.

PERSON

An individual, partnership, public or private association or corporation, firm, trust, estate, municipality, governmental unit, public utility or any other legal entity whatsoever, which is recognized by law as the subject of rights and duties.

POST-FIRM STRUCTURE

A structure for which construction or substantial improvement occurred on or after the Township's initial Flood Insurance Rate Map (FIRM) dated September 30, 1977, and, as such, would be required to be compliant with the regulations of the National Flood Insurance Program.

PRE-FIRM STRUCTURE

A structure for which construction or substantial improvement occurred before the Township's initial Flood Insurance Rate Map (FIRM) dated September 30, 1977, and, as such, would not be required to be compliant with the regulations of the National Flood Insurance Program.

RECREATIONAL VEHICLE

A vehicle which is:

- (1) Built on a single chassis;
- (2) Not more than 400 square feet, measured at the largest horizontal projections;
- (3) Designed to be self-propelled or permanently towable by a light-duty truck; and
- (4) Not designed for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

REGULATORY FLOOD ELEVATION

The base flood elevation (BFE) or estimated flood height as determined using simplified methods plus a freeboard safety factor of 2 feet.

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 average, equals or exceeds 25% of the market value of the structure before the damage occurred.

SPECIAL FLOOD HAZARD AREA (SFHA)

An area in the floodplain subject to a one-percent or greater chance of flooding in any given year. It is shown on the FIRM as Zone A, AO, AI-A30, AE, A99, or, AH.

START OF CONSTRUCTION

Includes substantial improvement and other proposed new development and means the date the permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 days after the date of the permit and shall be completed within 12 months after the date of issuance of the permit unless a time extension is granted, in writing, by the Floodplain Administrator. 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 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 walkways; nor does it include excavation for a basement, footings, piers, or 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

A walled and roofed building, including a gas or liquid storage tank that is principally above ground, as well as a manufactured home.

SUBDIVISION

The division or redivision of a lot, tract, or parcel of land by any means into two or more lots, tracts, parcels or other divisions of land including changes in existing lot lines for the purpose, whether immediate or future, of lease, partition by the court for distribution to heirs, or devisees, transfer of ownership or building or lot development; provided, however, that the subdivision by lease of land for agricultural purposes into parcels of more than 10 acres, not involving any new street or easement of access or any residential dwelling, shall be exempted.

SUBSTANTIAL DAMAGE

Damage from any cause sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50% or more of the market value of the structure before the damage occurred. Substantial damage also means a structure that meets the definition for repetitive loss.

SUBSTANTIAL IMPROVEMENT

Any new construction/development, reconstruction, rehabilitation, addition, or other improvement of a structure, taking place during a ten-year period in which the cumulative cost would equal or exceed 50% of the market value of the structure before the start of

construction of the improvement. This term includes structures which have incurred substantial damage or repetitive loss regardless of the actual repair work performed.

UNIFORM CONSTRUCTION CODE (UCC)

The statewide building code adopted by the Pennsylvania General Assembly in 1999 applicable to new construction in all municipalities whether administered by the municipality, a third party or the Department of Labor and Industry. Applicable to residential and commercial buildings, the Code adopted the International Residential Code (IRC) and the International Building Code (IBC), by reference, as the construction standard applicable with the state floodplain construction. For coordination purposes, references to the above are made specifically to various sections of the IRC and the IBC.

USE

Any activity, occupation, business or operation carried on, or intended to be carried on, in a building or other structure or on a tract of land.

- (1) Use, Accessory
A use located on the same lot with a principal use, and clearly incidental or subordinate to, and in connection with, the principal use.
- (2) Use, Principal
The main use on a lot.

VARIANCE

A grant of relief by the Township from terms of a floodplain management regulation.

VIOLATION

The failure of a structure or other development to be fully compliant with the Township's flood plain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in 44 CFR § 60.3(b)(5), (c)(4), (c)(10), (d)(3), (e)(2), (e)(4), or (e)(5) is presumed to be in violation until such time as that documentation is provided.

§ 114-2 Intent.

The intent of this chapter is to:

- A. Promote the general health, welfare, and safety of the community.
- B. Encourage the utilization of appropriate construction practices in order to prevent or minimize flood damage in the future.
- C. Minimize danger to public health by protecting water supply and natural drainage.
- D. Reduce financial burdens imposed on the community, its governmental units and its residents by preventing excessive development in areas subject to flooding.
- E. Comply with federal and state floodplain management requirements.

- F. Regulate uses, activities, and development which, acting alone or in combination with other existing or future uses, activities and development, will cause unacceptable increases in flood heights, velocities and frequencies.
- G. Restrict or prohibit certain uses, activities and development from locating within areas subject to flooding.
- H. Require all those uses, activities, and development that do occur in floodprone areas to be protected and/or floodproofed against flooding and flood damage.
- I. Protect individuals from buying lands and structures which are unsuited for intended purposes because of flood hazards.

§ 114-3 Applicability.

It shall be unlawful for any person, partnership, business or corporation to undertake, or cause to be undertaken, any construction or development anywhere within the Township of Lower Makefield unless a permit has been obtained from the Floodplain Administrator.

§ 114-4 Abrogation and greater restrictions.

This chapter supersedes any other conflicting provision which may be in effect in identified floodplain areas. However, any other ordinance provisions shall remain in full force and effect to the extent that those provisions are more restrictive. If there is any conflict between any of the provisions of this chapter, the more restrictive shall apply.

§ 114-5 Severability.

- A. If any section, subsection, paragraph, sentence, clause or phrase of this chapter shall be declared invalid for any reason whatsoever, such a decision shall not affect the remaining portions of the chapter, which shall remain in full force and effect, and for this purpose the provisions of this chapter are hereby declared to be severable.
- B. If a court of competent jurisdiction finds the application of any provision or provisions of this chapter to any lot, building or other structure, or tract of land, to be invalid or ineffective in whole or in part, the effect of such decision shall be limited to the person, property, or situation immediately involved in the controversy, and the application of any such provision to other persons, property or situations shall not be affected.

§ 114-6 Warning and disclaimer of liability.

- A. The degree of flood protection sought by the provisions of this chapter is considered reasonable for regulatory purposes and is based on accepted engineering methods of study. Larger floods may occur or flood heights may be increased by man-made or natural causes, such as ice jams and bridge openings restricted by debris. This chapter does not imply that areas outside any identified floodplain areas, or that land uses permitted within such areas, will be free from flooding or flood damages.

- B. This chapter shall not create liability on the part of Lower Makefield Township or any officer or employee thereof for any flood damages that result from reliance on this chapter or any administrative decision lawfully made there under.

ARTICLE II Administration

§ 114-7 Designation of Floodplain Administrator.

- A. The Zoning Officer is hereby appointed to administer and enforce this chapter and is referred to herein as the Floodplain Administrator. The Floodplain Administrator may:
 - (1) Fulfill the duties and responsibilities set forth in these regulations;
 - (2) Delegate duties and responsibilities set forth in these regulations to qualified technical personnel, plan examiners, inspectors, and other employees; or
 - (3) Enter into a written agreement or written contract with another agency or private sector entity to administer specific provisions of these regulations. Administration of any part of these regulations by another entity shall not relieve the community of its responsibilities pursuant to the participation requirements of the National Flood Insurance Program as set forth in the Code of Federal regulations at 44 CFR 59.22.
- B. In the absence of a designated Floodplain Administrator, the duties of the Floodplain Administrator are to be fulfilled by the Township Manager or their designee.

§ 114-8 Permits required.

A permit shall be required before any construction or development is undertaken within any area of Lower Makefield Township.

§ 114-9 Duties and Responsibilities of the Floodplain Administrator.

- A. The Floodplain Administrator shall issue a permit only after it has been determined that the proposed work to be undertaken will be in conformance with the requirements of this and all other applicable codes and ordinances.
- B. Prior to the issuance of any permit, the Floodplain Administrator shall review the application for the permit to determine if all other necessary government permits required by state and federal laws have been obtained, such as those required by the Pennsylvania Sewage Facilities Act (Act 1966-537, as amended); the Pennsylvania Dam Safety and Encroachments Act (Act 1978-325, as amended); the Pennsylvania Clean Streams Act (Act 1937-394, as amended); and the U.S. Clean Water Act, Section 404, 33, U.S.C. § 1344. No permit shall be issued until this determination has been made.
- C. During the construction period, the Floodplain Administrator or other authorized official shall inspect the premises to determine that the work is progressing in compliance with the information provided on the permit application and with all applicable municipal laws and

ordinances. He/she shall make as many inspections during and upon completion of the work as are necessary.

- D. In the discharge of his/her duties, the Floodplain Administrator shall have the authority to enter any building, structure, premises or development in the identified floodplain area, upon presentation of proper credentials, at any reasonable hour to enforce the provisions of this chapter.
- E. In the event the Floodplain Administrator discovers that the work does not comply with the permit application or any applicable laws and ordinances, or that there has been a false statement or misrepresentation by any applicant, the Floodplain Administrator shall revoke the permit and report such fact to the Township Manager for whatever action it considers necessary.
- F. The Floodplain Administrator shall maintain in perpetuity all records associated with the requirements of this chapter including, but not limited to, finished construction elevation data, permitting, inspection and enforcement.
- G. The Floodplain Administrator shall consider the requirements of 34 Pa. Code and the 2021 IBC and the 2021 IRC or latest revisions thereof.
- H. In the case of existing structures, prior to the issuance of any Development/Permit, the Floodplain Administrator shall review the history of repairs to the subject building, so that any repetitive loss concerns can be addressed before the permit is issued.
- I. The responsibility, authority and means to implement the commitments of the Floodplain Administrator can be delegated from the person identified. However, the ultimate responsibility lies with the person identified in the floodplain ordinance as the floodplain administrator/manager.

§ 114-10 Application procedures and requirements.

- A. Application for such a permit shall be made, in writing, to the Floodplain Administrator on forms supplied by Lower Makefield Township. Such application shall contain the following:
 - (1) Name and address of applicant.
 - (2) Name and address of owner of land on which proposed construction is to occur.
 - (3) Name and address of contractor.
 - (4) Site location including address.
 - (5) Listing of other permits required.
 - (6) Brief description of proposed work and estimated cost, including a breakout of flood-related cost.
 - (7) A plan of the site showing the exact size and location of the proposed construction as well as any existing buildings or structures.
- B. If any proposed construction or development is located entirely or partially within any identified floodplain area, applicants for permits shall provide all the necessary information in sufficient detail and clarity to enable the Floodplain Administrator to determine that:

- (1) All such proposals are consistent with the need to minimize flood damage and conform with the requirements of this and all other applicable codes and ordinances;
 - (2) All utilities, such as sewer, gas, electric, water and sewer systems, are located and constructed to minimize or eliminate flood damage;
 - (3) Adequate drainage is provided so as to reduce exposure to flood hazards;
 - (4) Structures will be anchored to prevent floatation, collapse, or lateral movement;
 - (5) No development shall be permitted in the floodway that would result in any increase in the base flood elevation;
 - (6) Building materials are flood resistant;
 - (7) Appropriate practices that minimize flood damage have been used; and
 - (8) Mechanical, plumbing, and electrical systems have been designed and located up to, or above, the regulatory flood elevation (the base flood elevation plus two (2) feet of freeboard), or meet the requirements of ASCE 24, except that minimum electric service required to address life safety and electric code requirements is permitted below the design flood elevation provided it conforms to the provisions of the electrical part of building code for wet locations.
- C. Applicants shall file the following minimum information plus any other pertinent information as may be required by the Floodplain Administrator to make the above determination:
- (1) A completed permit application form.
 - (2) A plan of the entire site, clearly and legibly drawn at a scale of one inch being equal to 100 feet or less, showing the following:
 - (a) North arrow, scale, and date;
 - (b) Topographic contour lines, if available;
 - (c) The location of all existing and proposed buildings, structures, and other improvements, including the location of any existing or proposed subdivision and development;
 - (d) The location of all existing streets, drives, and other accessways; and
 - (e) The location of any existing bodies of water or watercourses, identified floodplain areas, and, if available, information pertaining to the floodway, and the flow of water including direction and velocities.
 - (3) Plans of all proposed buildings, structures and other improvements, drawn at suitable scale showing the following:
 - (a) The proposed lowest floor elevation of any proposed building based upon North American Vertical Datum of 1988;
 - (b) The elevation of the base flood;
 - (c) Supplemental information as may be necessary under 34 Pa. Code, the 2021 IBC or the 2021 IRC.
 - (4) The following data and documentation:
 - (a) If available, information concerning flood depths, pressures, velocities, impact and uplift forces and other factors associated with a base flood; and Floodway Area [see § 114-20A] when combined with all other existing and

anticipated development will not increase the base flood elevation at any point.

- (b) Detailed information concerning any proposed floodproofing measures and corresponding elevations.
 - (c) Documentation, certified by a registered professional engineer or architect, to show that the cumulative effect of any proposed development within an AE Area/District without floodway [see § 114-20B] when combined with all other existing and anticipated development, will not increase the base flood elevation at any point.
 - (d) A document, certified by a registered professional engineer or architect, which states that the proposed construction or development has been adequately designed to withstand the pressures, velocities, impact and uplift forces associated with the base flood. Such statement shall include a description of the type and extent of floodproofing measures which have been incorporated into the design of the structure and/or the development.
 - (e) Detailed information needed to determine compliance with § 114-26F, Storage, and § 114-27, Development which may endanger human life, including:
 - [1] The amount, location and purpose of any materials or substances referred to in §§ 114-26F and 114-27, which are intended to be used, produced, stored or otherwise maintained on site.
 - [2] A description of the safeguards incorporated into the design of the proposed structure to prevent leaks or spills of the dangerous materials or substances listed in § 114-27 during a base flood.
 - (f) The appropriate component of the Department of Environmental Protection's "Planning Module for Land Development."
 - (g) Where any excavation or grading is proposed, a plan meeting the requirements of the Department of Environmental Protection and Bucks County Conservation District, to implement and maintain erosion and sedimentation control.
 - (h) A properly completed and signed elevation certificate.
- D.** Applications for permits shall be accompanied by a fee, payable to the municipality. Such fee shall be in the amount specified by the Board of Supervisors, by resolution.

§ 114-11 Review of application by others.

- A.** A copy of all plans and applications for any proposed construction or development in any identified floodplain area to be considered for approval shall be submitted by the Floodplain Administrator to any other appropriate agencies and/or individuals (e.g., Planning Commission, planner, municipal engineer, etc.) for review and comment.
- B.** A copy of all applications and plans for any proposed construction or development in any identified floodplain area to be considered for approval shall be submitted by the Floodplain Administrator to Bucks County Conservation District for review and comment

prior to the issuance of a permit. The recommendations of Bucks County Conservation District shall be considered by the Floodplain Administrator for incorporation into the proposed plan.

§ 114-12 Changes.

After the issuance of a permit by the Floodplain Administrator, no changes of any kind shall be made to the application, permit or any of the plans, specifications or other documents submitted with the application without the written consent or approval of the Floodplain Administrator. Requests for any such change shall be in writing, and shall be submitted by the applicant to Floodplain Administrator for consideration.

§ 114-13 Placards.

In addition to the permit, a placard shall be issued by the Floodplain Administrator which shall be displayed on the premises during the time construction is in progress. This placard shall show the permit number, date of issuance, and shall be signed by the Floodplain Administrator.

§ 114-14 Records.

A copy of the permit issued shall be kept on the job site premises during the time construction is in progress.

§ 114-15 Start of construction; time limits.

- A.** Work on the proposed construction or development shall begin within 180 days after the date of issuance and shall be completed within 12 months after the date of issuance of the permit or the permit shall expire unless a time extension is granted, in writing, by the Floodplain Administrator. The issuance of development permit does not refer to the zoning approval.
- B.** The actual start of construction 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 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, or 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.

- C. Time extensions shall be granted only if a written request is submitted by the applicant, who sets forth sufficient and reasonable cause for the Floodplain Administrator to approve such a request and the original permit is compliant with the ordinance and FIRM/FIS in effect at the time the extension is granted.

§ 114-16 Enforcement notices.

Whenever the Floodplain Administrator or other authorized municipal representative determines that there are reasonable grounds to believe that there has been a violation of any provisions of this chapter, or of any regulations adopted pursuant thereto, the Floodplain Administrator shall give notice of such alleged violation as hereinafter provided. The enforcement notice shall state at least the following:

- A. The name of the owner of record and any other person against whom the Township intends to take action.
- B. The location of the property in violation.
- C. The specific violation with a description of the requirements which have not been met, citing in each instance the applicable provisions of this chapter.
- D. The date before which the steps for compliance must be commenced and the date before which the steps must be completed, a period of time which shall not exceed thirty (30) days.
- E. Be served upon the property owner or his agent as the case may require; provided, however, that such notice or order shall be deemed to have been properly served upon such owner or agent when a copy thereof has been served with such notice by any other method authorized or required by the laws of this state.
- F. Contain an outline of remedial actions which, if taken, will effect compliance with the provisions of this chapter.

§ 114-17 Enforcement remedies.

- A. Any person who fails to comply with any or all of the requirements or provisions of this chapter or who fails or refuses to comply with any notice, order of direction of the Floodplain Administrator or any other authorized employee of the municipality shall be guilty of a summary offense and, upon conviction, shall pay a fine to the Township of Lower Makefield of not less than \$25 nor more than \$600 plus costs of prosecution. In addition to the above penalties, all other actions are hereby reserved, including an action in equity for the proper enforcement of this chapter. The imposition of a fine or penalty for any violation of or noncompliance with this chapter shall not excuse the violation or noncompliance or permit it to continue. All such persons shall be required to correct or remedy such violations and noncompliance within a reasonable time. Any development initiated or any structure or building constructed, reconstructed, enlarged, altered, or relocated in noncompliance with this chapter may be declared by the Board of Supervisors to be a public nuisance and abatable as such.

- B. Nothing contained in this section shall be construed or interpreted to grant to any person or entity other than the Township the right to commence any action for enforcement pursuant to this section.

§ 114-18 Appeals.

Appeals from determination made by the Floodplain Administrator regarding floodplain provisions shall be acted on by the Zoning Hearing Board in accordance with procedures for Zoning Hearing Board (ZHB), § 200-94 through § 200-109. However, granting of an appeal will not relieve a landowner, the Township and the ZHB from compliance with the minimum requirements of the National Flood Insurance Program and to the extent any of the ZHB procedures are not as restrictive as the National Flood Insurance Program, the more restrictive provisions shall apply to ZHB review of floodplain appeals.

ARTICLE III Floodplain Areas

§ 114-19 Identification.

The identified floodplain area shall be:

- A. Any areas of Lower Makefield Township, classified as special flood hazard areas (SFHAs) in the Flood Insurance Study (FIS) and the accompanying Flood Insurance Rate Maps (FIRMs) dated March 16, 2015, and issued by the Federal Emergency Management Agency (FEMA) or the most recent revision thereof, including all digital data developed as part of the Flood Insurance Study.

- (1) FIRM Map Numbers applicable to Lower Makefield Township.

| | | | |
|-------------|-------------|-------------|-------------|
| 42017C0343K | 42017C0431K | 42017C0451J | 42017C0454K |
| 42017C0344J | 42017C0432J | 42017C0452J | 42017C0456J |
| 42017C0363J | 42014C0434J | 42017C0453J | 42017C0458J |
| 42017C0364J | | | |

- (2) The above referenced FIS and FIRMS, and any subsequent revisions and amendments, are hereby adopted by Lower Makefield Township, and declared to be a part of this chapter.

- B. Any community-identified Flood Hazard Areas.

§ 114-20 Specifically identified floodplain areas; descriptions and special requirements:

The identified floodplain area shall consist of the following specific areas:

- A. The floodway area shall be those areas identified in the FIS and the FIRM as floodway and which represents the channel of a watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation by more than one foot at any point. This term shall also include floodway

areas which have been identified in other available studies or sources of information for those Special Flood Hazard Areas where no floodway has been identified in the FIS and FIRM.

- (1) Within any floodway area, no encroachments, including fill, new construction, substantial improvements, or other development shall be permitted unless it has been demonstrated through hydrologic and hydraulic analysis performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base flood discharge.
 - (2) Within any floodway area, no new construction or development shall be allowed, unless the appropriate permit is obtained from the Department of Environmental Protection Regional Office.
- B.** The AE Area/District shall be those areas identified as an AE Zone on the FIRM included in the FIS prepared by FEMA for which base flood elevations have been provided.
 - (1) The AE Area adjacent to the floodway shall be those areas identified as an AE Zone on the FIRM included in the FIS prepared by FEMA for which the base flood elevations have been provided and a floodway has been delineated.
 - (2) The AE Area without floodway shall be those areas identified as an AE Zone on the FIRM included in the FIS prepared by FEMA for which base flood elevations have been provided in the FIS but no floodway has been determined.
 - (a) No permit shall be granted for any construction, development, use, or activity within any AE Area/District without floodway unless it is demonstrated that the cumulative effect of the proposed development would not, together with all other existing and anticipated development, increase the BFE.
 - (b) No new construction or development shall be located within the area measured 50 feet landward from the top-of-bank of any watercourse, unless the appropriate permit is obtained from the Department of Environmental Protection Regional Office.
- C.** The A Area/District shall be those areas identified as an A Zone on the FIRM included in the FIS prepared by FEMA and for which no base flood elevations have been provided. For these areas, elevation and floodway information from other federal, state, or other acceptable sources shall be used when available. Where other acceptable information is not available, the base flood elevation shall be determined by using the elevation of a point on the boundary of the identified floodplain area which is nearest the construction site. In lieu of the above, the municipality may require the applicant to determine the elevation with hydrologic and hydraulic engineering techniques. Hydrologic and hydraulic analyses shall be undertaken only by professional engineers or others of demonstrated qualifications, who shall certify that the technical methods used correctly reflect currently accepted technical concepts. Studies, analyses, computations, etc., shall be submitted in sufficient detail to allow a thorough technical review by the municipality.
- D.** The AO and AH Area/District shall be those areas identified as Zones AO and AH on the FIRM included in the FIS prepared by FEMA. These areas are subject to inundation by the one-percent-annual-chance shallow flooding where average depths are between one and

three feet. In Zones AO and AH, drainage paths shall be established to guide floodwaters around and away from structures on slopes.

- E. Community-identified flood hazard areas shall be those areas where Lower Makefield Township has identified local flood hazard or ponding areas, as delineated and adopted on a "Local Flood Hazard Map" using best available topographic data and locally derived information such as flood of record, historic high water marks, soils or approximate study methodologies.

§ 114-21 Changes in identification of area.

The identified floodplain area may be revised or modified by the Board of Supervisors where studies or information provided by a qualified agency or person documents the need for such revision. However, prior to any such change to the Special Flood Hazard Area, approval must be obtained from FEMA. Additionally, as soon as practicable, but not later than six months after the date such information becomes available, a community shall notify FEMA of the changes to the Special Flood Hazard Area by submitting technical or scientific data. See § 114-24B for situations where FEMA notification is required.

§ 114-22 Boundary disputes.

Should a dispute concerning any identified floodplain boundary arise, an initial determination shall be made by Lower Makefield Township and any party aggrieved by this decision or determination may appeal to the Zoning Hearing Board. The burden of proof shall be on the appellant.

§ 114-23 Jurisdictional boundary changes.

Prior to development occurring in areas where annexation or other corporate boundary changes are proposed or have occurred, the Board of Supervisors shall review flood hazard data affecting the lands subject to boundary changes. The Board of Supervisors shall adopt and enforce floodplain regulations in areas subject to annexation or corporate boundary changes which meet or exceed those in 44 CFR 60.3.

ARTICLE IV Technical Provisions

§ 114-24 General requirements.

- A. Alterations or relocations of watercourses.
 - (1) No encroachment, alteration or improvement of any kind shall be made to any watercourse until all adjacent municipalities which may be affected by such action have been notified by Lower Makefield Township, and until all required permits or approvals have been first obtained from the Department of Environmental Protection (PADEP) Regional Office.

- (2) In addition, the Federal Emergency Management Agency (FEMA) and Pennsylvania Department of Community and Economic Development shall be notified by Lower Makefield Township prior to any alteration or relocation of any watercourse.
 - (3) No encroachment, alteration, or improvement of any kind shall be made to any watercourse unless it can be shown that the activity will not reduce or impede the flood-carrying capacity of the watercourse in any way.
- B. Technical or scientific data shall be submitted by the applicant to FEMA for a letter of map revision (LOMR) as soon as practicable but within six months of any new construction, development, or other activity resulting in changes in the BFE. The situations when a LOMR or a conditional letter of map revision (CLOMR) are required are:
 - (1) Any development that causes a rise in the base flood elevations within the floodway; or
 - (2) Any development occurring in Zones A1-30 and Zone AE without a designated floodway, which will cause any rise in the base flood elevation; or
 - (3) Alteration or relocation of a stream (including but not limited to installing culverts and bridges).
- C. The applicant shall (as per 44 CFR 65.12):
 - (1) Apply to FEMA for conditional approval of such action prior to permitting the encroachment to occur.
 - (2) Upon receipt of the Administrator's conditional approval of map change and prior to approving the proposed encroachments, Lower Makefield shall provide evidence to FEMA of the adoption of floodplain management ordinances incorporating the increased base flood elevations and/or revised floodway reflecting the post-project condition.
 - (3) Upon completion of the proposed encroachments, the applicant shall provide as-built certifications. FEMA will initiate a final map revision upon receipt of such certifications in accordance with 44 CFR 67.
- D. Any new construction, development, uses or activities allowed within any identified floodplain area shall be undertaken in strict compliance with the provisions contained in this chapter and any other applicable codes, ordinances and regulations.
- E. Within any Identified Floodplain Area (see § 114-20), no new construction or development shall be located within the area measured 50 feet landward from the top-of-bank of any watercourse, unless a permit is obtained from the Department of Environmental Protection Regional Office.

§ 114-25 Elevation and floodproofing requirements.

Within any Identified Floodplain Area, any new construction or substantial improvements shall be prohibited. If a variance is obtained for new construction or substantial improvements in the Identified Floodplain Area in accordance with the criteria of in §§ 114-34 and 114-35, then the following provisions apply:

- A. Residential structures:

- (1) In AE, A1-30, and AH Zones, any new construction or substantial improvement shall have the lowest floor (including basement) elevated up to, or above the regulatory flood elevation (the base flood elevation plus two (2) feet of freeboard).
- (2) In A Zones, where there are no base flood elevations specified on the FIRM, any new construction or substantial improvement shall have the lowest floor (including basement) elevated up to, or above, the regulatory flood elevation (the base flood elevation plus two (2) feet of freeboard) determined in accordance with § 114-20C of this chapter.
- (3) In AO Zones, any new construction or substantial improvement shall have the lowest floor (including basement) at or above the highest adjacent grade and at least two (2) feet higher than the depth number specified on the FIRM.
- (4) The design and construction standards and specifications contained in the 2021 International Building Code (IBC) and the 2021 International Residential Code (IRC) or the most recent revisions thereof and ASCE 24 and 34 Pa. Code (Chapters 401-405 as amended) shall be utilized, where they are more restrictive.

B. Nonresidential structures:

- (1) In AE, A1-30 and AH Zones, any new construction or substantial improvement of a nonresidential structure shall have the lowest floor (including basement) elevated up to, or above, the regulatory flood elevation (the base flood elevation plus two (2) feet of freeboard), or be designed and constructed so that the space enclosed below the regulatory flood elevation:
 - (a) Is floodproofed so that the structure is watertight with walls substantially impermeable to the passage of water; and
 - (b) Has structural components with the capability of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy.
- (2) In A Zones, where no base flood elevations are specified on the FIRM, any new construction or substantial improvement shall have the lowest floor (including basement) elevated or completely floodproofed up to, or above, the regulatory flood elevation (the base flood elevation plus two (2) feet of freeboard) determined in accordance with § 114-20C of this chapter.
- (3) In AO Zones, any new construction or substantial improvement shall have their lowest floor elevated or completely floodproofed above the highest adjacent grade and at least two (2) feet higher than the depth number specified on the FIRM.
- (4) Any nonresidential structure, or part thereof, made watertight below the regulatory flood elevation shall be floodproofed in accordance with the W1 or W2 space classification standards contained in the publication entitled "Flood-Proofing Regulations" published by the U.S. Army Corps of Engineers (June 1972, as amended in EP 1165-2-314, December 1995) or the flood load, and flood resistant construction requirements of ASCE. All plans and specifications for such floodproofing shall be accompanied by a statement certified by a registered professional engineer or architect which states that the proposed design and methods of construction are in conformance with the above-referenced standards. There should be a statement submitted with the permit application and a statement

submitted with the as-built Floodproofing Certificate prior to the issuance of the Certificate of Occupancy.

- (5)** Prior to the issuance of the Certificate of Occupancy and in conjunction with the submission of the non-residential Floodproofing Certificate to the Floodplain Administrator, all non-residential structures that will be floodproofed must submit the following:

- (a)** An Inspection and Maintenance Plan detailing the annual maintenance of floodproofed components ensuring that all components will operate properly under flood conditions. Components that must be inspected include at a minimum:

- [1] Mechanical equipment such as sump pumps and generators;
- [2] Flood shields and closures;
- [3] Walls and wall penetrations, and
- [4] Levees and berms (as applicable).

- (b)** A Flood Emergency Operation Plan produced by the design professional detailing the procedures to be followed during a flooding event, which must include information pertaining to how all components will operate properly under all conditions, including power failures. An adequate plan shall include the following:

- [1] An established chain of command and responsibility with leadership responsibilities clearly defined for all aspects of the plan.
- [2] A procedure for notification of necessary parties there is a threat of flooding and/or flood warnings are issued. Personnel required to be at the building should have a planned and safe means of ingress and should have no other emergency response duties during a flood event. Alternates should be assigned if the primary persons responsible are unable to complete their assigned duties under the plan.
- [3] A list of specific duties assigned to ensure that all responsibilities are addressed expeditiously. The locations of materials necessary to properly install all floodproofing components must be included in the list.
- [4] An evacuation plan for all personnel or occupants; those without duties for the flood emergency as well as those with duties for implementing the plan. All possible ingress and egress routes must be identified.

- (6)** The design and construction standards and specifications contained in the 2021 International Building Code (IBC) and in the 2021 International Residential Code (IRC) or the most recent revisions thereof and ASCE 24 and 34 Pa. Code (Chapters 401-405 as amended) shall be utilized, where they are more restrictive.

C. Space below the lowest floor.

- (1)** Basements are prohibited.

- (2) Fully enclosed space below the lowest floor (excluding basements) which will be used solely for the parking of a vehicle, building access, or incidental storage in an area other than a basement, shall be designed and constructed to allow for the automatic entry and exit of flood waters for the purpose of equalizing hydrostatic forces on exterior walls. The term "fully enclosed space" also includes crawl spaces.
 - (3) Designs for meeting this requirement must either be certified by a registered professional engineer or architect, or meet or exceed the following minimum criteria:
 - (a) A minimum of two openings having a net total area of not less than one square inch for every square foot of enclosed space installed on two (2) separate walls.
 - (b) The bottom of all openings shall be no higher than one (1) foot above grade.
 - (c) Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
 - (4) A nonconversion agreement is required to be recorded prior to issuance of the Certificate of Occupancy.
- D.** Historic structures. Historic structures undergoing repair or rehabilitation that would constitute a substantial improvement as defined in this chapter, must comply with all ordinance requirements that do not preclude the structure's continued designation as a historic structure. Documentation that a specific ordinance requirement will cause removal of the structure from the National Register of Historic Places or the State Inventory of Historic Places must be obtained from the Secretary of the Interior or the State Historic Preservation Officer. Any exemption from ordinance requirements will be the minimum necessary to preserve the historic character and design of the structure.
- E.** Accessory structures. Structures accessory to a principal building need not be elevated or floodproofed to remain dry, but shall comply, at a minimum, with the following requirements:
- (1) The structure shall not be designed or used for human habitation and shall be limited to the parking of vehicles, or to the storage of tools, material, and equipment related to the principal use or activity;
 - (2) The floor area shall not exceed 200 square feet;
 - (3) The structure will have a low damage potential;
 - (4) The structure will be located on the site so as to cause the least obstruction to the flow of flood waters;
 - (5) Power lines, wiring, and outlets will be elevated to the Regulatory Flood Elevation;
 - (6) Permanently affixed utility equipment and appliances such as furnaces, heaters, washers, dryers, etc. are prohibited;
 - (7) Sanitary facilities are prohibited;
 - (8) The structure shall be adequately anchored to prevent flotation, collapse, and lateral movement and shall be designed to automatically provide for the entry and exit of floodwater for the purpose of equalizing hydrostatic forces on the walls. Designs for meeting this requirement must either be certified by a registered professional engineer or architect, or meet or exceed the following minimum criteria:

- (a) A minimum of two (2) openings having a net total area of not less than one (1) square inch for every square foot of enclosed space;
 - (b) The bottom of all openings shall be no higher than one (1) foot above grade; and
 - (c) Openings may be equipped with screens, louvers, etc. or other coverings or devices provided that they permit the automatic entry and exit of flood waters.
- (9) For accessory structures that are 200 square feet or larger in area (footprint) and that are below the base flood elevation, a variance is required as set forth in §§ 114-34 and 114-35. If a variance is granted, a signed Declaration of Land Restriction (Non-conversion Agreement) shall be recorded on the property deed prior to issuance of the Certificate of Occupancy.
- (10) The storage of hazardous materials in accessory structures within any identified floodplain areas is prohibited.

§ 114-26 Design and construction standards.

The following minimum standards shall apply for all construction and development proposed within any identified floodplain area:

- A. Fill. Within any identified floodplain area, the use of fill shall be prohibited. If a variance is obtained in accordance with the criteria in §§ 114-34 and 114-35, then the following provisions apply:
- (1) Such fill shall not increase the base flood elevation.
 - (2) Fill shall extend laterally at least 15 feet beyond the building line from all points.
 - (3) Fill shall consist of soil or small rock materials only; sanitary landfills shall not be permitted.
 - (4) Fill shall be compacted to provide the necessary permeability and resistance to erosion, scouring, or settling.
 - (5) Fill shall be no steeper than one vertical to three horizontal, unless substantiated data justifying steeper slopes are submitted to, and approved by, the Zoning Officer, Floodplain Administrator and the Township Engineer.
 - (6) Fill shall be used to the extent to which it does not adversely affect adjacent properties.
 - (7) Under no circumstances shall fill be permitted in the floodway.
- B. Drainage facilities. Storm drainage facilities shall be designed to convey the flow of stormwater runoff in a safe and efficient manner. The system shall ensure proper drainage along streets, and provide positive drainage away from buildings. The system shall also be designed to prevent the discharge of excess runoff onto adjacent properties.
- C. Water and sanitary sewer facilities and systems.
- (1) All new or replacement water and sanitary sewer facilities and systems shall be located, designed and constructed to minimize or eliminate flood damages and the infiltration of flood waters.
 - (2) Sanitary sewer facilities and systems shall be designed to prevent the discharge of untreated sewage into flood waters.

- (3) No part of any on-site waste disposal system shall be located within any identified floodplain area except in strict compliance with all state and local regulations for such systems. If any such system is permitted, it shall be located so as to avoid impairment to it, or contamination from it, during a flood.
 - (4) The design and construction provisions of the UCC and FEMA No. 348, "Protecting Building Utilities From Flood Damages" and "the International Private Sewage Disposal Code" shall be utilized.
 - (5) No expansion of any on-site sewage system now located either wholly or partially in the floodplain shall be permitted.
- D. Other utilities. All other utilities such as gas lines, electrical and telephone systems shall be located, elevated (where possible) and constructed to minimize the chance of impairment during a flood.
- E. Streets. The finished elevation of all new streets shall be no more than one foot below the regulatory flood elevation.
- F. Storage. All materials that are buoyant, flammable, explosive or, in times of flooding, could be injurious to human, animal, or plant life, and not listed in § 114-27, Development which may endanger human life, shall be stored at or above the regulatory flood elevation or floodproofed to the maximum extent possible.
- G. Placement of buildings and structures. All buildings and structures shall be designed, located, and constructed so as to not obstruct the flow of water and shall be designed to have no effect upon the flow and height of water.
- H. Anchoring.
 - (1) All buildings and structures shall be firmly anchored in accordance with accepted engineering practices to prevent flotation, collapse or lateral movement. The Zoning Officer shall require the applicant to submit the signed and sealed certification by a registered professional engineer that the proposed structural design meets these criteria.
 - (2) All air ducts, large pipes, storage tanks, and other similar objects or components located below the regulatory flood elevation shall be securely anchored or affixed to prevent flotation.
- I. Floors, walls and ceilings.
 - (1) Wood flooring used at or below the regulatory flood elevation shall be installed to accommodate a lateral expansion of the flooring, perpendicular to the flooring grain without causing structural damage to the building.
 - (2) Plywood used at or below the regulatory flood elevation shall be of a marine or water-resistant variety.
 - (3) Walls and ceilings at or below the regulatory flood elevation shall be designed and constructed of materials that are water-resistant and will withstand inundation.
 - (4) Windows, doors, and other components at or below the regulatory flood elevation shall be made of metal or other water-resistant material.
- J. Paints and adhesives.
 - (1) Paints or other finishes used at or below the regulatory flood elevation shall be of marine or water-resistant quality.

- (2) Adhesives used at or below the regulatory flood elevation shall be of a marine or water-resistant variety.
 - (3) All wooden components (doors, trim, cabinets, etc.) used at or below the regulatory flood elevation shall be finished with marine or water-resistant paint or other finishing materials.
- K.** Electrical components.
- (1) Electrical distribution panels shall be at least three (3) feet above the base flood elevation.
 - (2) Separate electrical circuits shall serve lower levels and shall be dropped from above.
- L.** Equipment.
- (1) Water heaters, furnaces, air conditioning and ventilating units, and other electrical, mechanical or utility equipment or apparatus shall not be located below the regulatory flood elevation.
 - (2) Ductwork shall be elevated to be at or above the regulatory flood elevation or floodproofed to remain water resistant.
- M.** Fuel supply systems. All gas and oil supply systems shall be designed to prevent the infiltration of flood waters into the system and discharges from the system into flood waters. Additional provisions shall be made for the drainage of these systems in the event that flood water infiltration occurs.
- N.** Uniform Construction Code coordination. The standards and specifications contained 34 Pa. Code (Chapters 401-405), as amended and not limited to the following provisions, shall apply to the above and other sections and subsections of this chapter, to the extent that they are more restrictive and supplement the requirements of this chapter.
- (1) International Building Code (IBC) 2018 or the latest edition thereof: Sections 801, 1202, 1403, 1603, 1605, 1612, 3402, and Appendix G.
 - (2) International Residential Building Code (IRC) 2018 or the latest edition thereof: Sections R104, R105, R109, R322, Appendix E and Appendix J.

§ 114-27 Development which may endanger human life.

- A.** In accordance with the Pennsylvania Flood Plain Management Act, and the regulations adopted by the Department of Community and Economic Development as required by the Act, any new or substantially improved structure which: will be used for the production or storage of any of the following dangerous materials or substances; or will be used for any activity requiring the maintenance of a supply of more than 550 gallons, or other comparable volume, of any of the following dangerous materials or substances on the premises; or will involve the production, storage, or use of any amount of radioactive substances, shall be prohibited. If a variance is obtained, the development shall be subject to the provisions of this chapter, in addition to all other applicable provisions. The following list of materials and substances are considered dangerous to human life:
- (1) Acetone;
 - (2) Ammonia;

- (3) Benzene;
 - (4) Calcium carbide;
 - (5) Carbon disulfide;
 - (6) Celluloid;
 - (7) Chlorine;
 - (8) Hydrochloric acid;
 - (9) Hydrocyanic acid;
 - (10) Magnesium;
 - (11) Nitric acid and oxides of nitrogen;
 - (12) Petroleum products (gasoline, fuel oil, etc.);
 - (13) Phosphorus;
 - (14) Potassium;
 - (15) Sodium;
 - (16) Sulphur and sulphur products;
 - (17) Pesticides (including insecticides, fungicides, and rodenticides);
 - (18) Radioactive substances, insofar as such substances are not otherwise regulated.
- B. Within any identified floodplain area, any new or substantially improved structure of the kind described in Subsection D(1), above, shall be prohibited within the area measured 50 feet landward from the top-of-bank of any watercourse.
 - C. Within any identified floodway area, any structure of the kind described in Subsection D(1), above, shall be prohibited.
 - D. Where permitted by variance within any other identified floodplain area, any substantially improved residential structure of the kind described in § 114-27A above, shall be elevated to remain completely dry up to at least two (2) feet above the base flood elevation and built in accordance with Subsections A, B and C.
 - E. Where permitted within any identified floodplain area, any substantially improved nonresidential structure of the kind described in § 114-27A above, shall be built in accordance with Subsections A, B and C, including:
 - (1) Elevated, or designed and constructed to remain completely dry up to at least two (2) feet above the base flood elevation; and
 - (2) Designed to prevent pollution from the structure or activity during the course of a base flood.
 - (3) Any such structure, or part thereof, that will be built below the regulatory flood elevation shall be designed and constructed in accordance with the standards for completely dry floodproofing contained in the publication "Flood-Proofing Regulations (U.S. Army Corps of Engineers, June 1972, as amended December 1995), or with some other equivalent watertight standard.

§ 114-28 Special requirements for subdivisions and development.

All subdivision proposals and development proposals containing at least twenty (20) lots or at least five (5) acres, whichever is the lesser, in identified floodplain areas where base flood elevation data are not available, shall be supported by hydrologic and hydraulic engineering analyses that

determine base flood elevations and floodway information. The analyses shall be prepared by a licensed professional engineer in a format required by FEMA for a Conditional Letter of Map Revision (“CLOMR”) or Letter of Map Revision (“LOMR”). Submittal requirements and processing fees shall be the responsibility of the applicant.

§ 114-29 Special requirements for manufactured homes.

Within any identified floodplain area, manufactured homes shall be prohibited. If a variance is obtained in accordance with the criteria in §§ 114-34 and 114-35, then the following provisions apply:

- A. Within any Floodway Area/District, manufactured homes shall be prohibited.
- B. Within any identified floodplain area, manufactured homes shall be prohibited within the area measured 50 feet landward from the top-of-bank of any watercourse.
- C. Where permitted within any identified floodplain area, all manufactured homes, and any improvements thereto, shall:
 - (1) Be placed on a permanent foundation.
 - (2) Be elevated so that the lowest floor of the manufactured home is at least two (2) feet above the base flood elevation.
 - (3) Be anchored to resist flotation, collapse and lateral movement.
 - (4) Water heaters, furnaces, air conditioning and ventilating units, and other electrical, mechanical or utility equipment or apparatuses shall not be located below the Regulatory Flood Elevation and shall be anchored to resist flotation, collapse, and/or lateral movement.
 - (5) Ductwork shall be elevated to be at or above the Regulatory Flood Elevation or floodproofed to remain water resistant.
- D. Installation of all manufactured homes shall be done in accordance with the manufacturer's installation instructions as provided by the manufacturer. Where the applicant cannot provide the above information, the requirements of Appendix E of the 2018 "International Residential Building Code" or the "U.S. Department of Housing and Urban Development's Permanent Foundations for Manufactured Housing," 1984 Edition, draft or latest revision thereto and 34 Pa. Code Chapters 401 through 405 shall apply.
- E. Consideration shall be given to the installation requirements of the 2021 IBC, and the 2021 IRC or the most recent revisions thereto and 34 Pa. Code, as amended where appropriate and/or applicable to units where the manufacturers' standards for anchoring cannot be provided or were not established for the proposed unit(s) installation.

§ 114-30 Special requirements for recreational vehicles.

Within any identified floodplain area, recreational vehicles shall be prohibited. If a variance is obtained in accordance with the criteria in §§ 114-34 and 114-35, then the following provisions apply:

- A. Recreational vehicles in Zones A, A1-30, AH and AE must either:
 - (1) Be on the site for fewer than 180 consecutive days;

- (2) Be fully licensed and ready for highway use, which means the recreational vehicle or park model is on wheels or a jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanent attachments such as additions, rooms, stairs, decks, or porches; or
- (3) Meet the permit requirements for manufactured homes in § 114-29.

§ 114-31 Prohibited activities with no variance granted.

In accordance with the administrative regulations promulgated by the Department of Community and Economic Development to implement the Pennsylvania Flood Plain Management Act, the following activities shall be prohibited within any identified floodplain area:

- A. The commencement of any of the following activities; or the construction, enlargement, or expansion of any structure used, or intended to be used, for any of the following activities:
 - (1) Hospitals.
 - (2) Nursing homes.
 - (3) Jails or prisons.
- B. The commencement of, or any construction of, a new manufactured home park or manufactured home subdivision, or substantial improvement to an existing manufactured home park or manufactured home subdivision.

ARTICLE V Existing Structures in Identified Floodplain Areas

§ 114-32 Applicability.

The provisions of this chapter do not require any changes or improvements to be made to lawfully existing structures. However, when any improvement is made to any existing structure, the provisions of Section 114-33 shall apply.

§ 114-33 Improvements.

Whenever any improvement is made to an existing structure located within any identified floodplain area, the following restrictions shall apply:

- A. No expansion or enlargement of an existing structure shall be allowed within the identified floodplain area that would cause any increase in BFE. In A Area/District(s), BFEs are determined using the methodology in § 114-20C.
- B. No expansion or enlargement of any existing structure shall be allowed within any floodway area/district that would cause any increase in BFE.
- C. Any modification, alteration, reconstruction, or improvement of any kind to an existing structure to an extent or amount of 50% or more of its market value shall constitute a substantial improvement and shall be undertaken only in full compliance with the provisions of this chapter.

- D. The above activity shall also address the requirements of 34 Pa. Code, as amended, and the 2021 IBC and 2021 IRC, or the most recent revision thereof as adopted by the Commonwealth of Pennsylvania.
- E. Within any Floodway Area/District (See § 114-20A), no new construction or development shall be allowed, unless the appropriate permit is obtained from the Department of Environmental Protection Regional Office.
- F. Within any AE Area/District without floodway (See § 114-20B), no new construction or development shall be located within the area measured 50 feet landward from the top-of-bank of any watercourse, unless the appropriate permit is obtained from the Department of Environmental Protection Regional Office.
- G. Any modification, alteration, reconstruction, or improvement of any kind that meets the definition of "repetitive loss" shall be undertaken only in full compliance with the provisions of this chapter.
- H. Any modification, alteration, reconstruction, or improvement of any kind to an existing structure, to an extent or amount of less than 50% of its market value, shall be elevated and/or floodproofed to the greatest extent possible.

ARTICLE VI Variances

§ 114-34 Grant of relief authorized.

If compliance with any of the requirements of this chapter would result in an exceptional hardship for a prospective builder, developer or landowner, the Lower Makefield Township Zoning Hearing Board may, upon request, grant relief from the strict application of the requirements.

§ 114-35 Variance procedures and conditions.

- A. Requests for variances shall be considered by the Zoning Hearing Board in accordance with the procedures contained in § 114-18 and the following:
 - (1) No variance shall be granted for any construction, development, use or activity within the Identified Floodplain Area that would cause any increase in BFE. In A Area/District(s), BFEs are determined using the methodology in § 114-20C.
 - (2) Except for a possible modification of the regulatory flood elevation requirement involved, no variance shall be granted for any of the other requirements pertaining specifically to development which may endanger human life (§ 114-27).
 - (3) If granted, a variance shall involve only the least modification necessary to provide relief.
 - (4) In granting any variance, the Zoning Hearing Board shall attach whatever reasonable conditions and safeguards it considers necessary in order to protect the public health, safety, and welfare, and to achieve the objectives of this chapter.
 - (5) Whenever a variance is granted, the Zoning Hearing Board shall notify the applicant in writing that:

- (a) The granting of the variance may result in increased premium rates for flood insurance.
 - (b) Such variances may increase the risks to life and property.
 - (6) In reviewing any request for a variance, the Zoning Hearing Board shall consider, at a minimum, the following:
 - (a) That there is good and sufficient cause;
 - (b) That failure to grant the variance would result in exceptional hardship to the applicant;
 - (c) That the granting of the variance will neither result in an unacceptable or prohibited increase in flood heights, additional threats to public safety, or extraordinary public expense; nor create nuisances, cause fraud on, or victimize the public, or conflict with any other applicable state statute or regulation, or local ordinance or regulations.
 - (7) A complete record of all variance requests and related actions shall be maintained by Lower Makefield Township. In addition, a report of all variances granted during the year shall be included in the annual report to the Federal Emergency Management Agency (FEMA).
 - (8) If the state statutory criteria for review for the Zoning Hearing Board in any way conflicts with federal requirements and/or federal law, federal law shall preempt that of the state.
- B. Notwithstanding any of the above, however, all structures shall be designed and constructed so as to have the capability of resisting the one-percent annual chance flood.

II. Partial Repealer

All other provisions of the Lower Makefield Township Code of Ordinances, as amended, shall remain in full force and effect. All other Ordinances or provisions of the Township's Code of Ordinances inconsistent herewith or in conflict with any of the terms hereof are, to the extent of said inconsistencies or conflicts, hereby specifically repealed.

III. Severability

The provisions of this ordinance are severable. If any section, clause, sentence, part or provision thereof shall be held illegal, invalid, or unconstitutional by a court of competent jurisdiction, the effect of such decision shall be limited to those provisions which are expressly stated in the decision to be invalid or ineffective, and such decision of the court shall not affect or impair any of the remaining sections, clauses, sentences, parts or provisions of this ordinance. It is hereby declared to be the intent of the Board of Supervisors that this ordinance would have been adopted if such illegal, invalid, or unconstitutional section, clause, sentence or part of a provision had not been included herein.

IV. Effective Date

All provisions of this ordinance shall be in full force and effect five (5) days after the approval and adoption.

ENACTED AND ORDAINED this _____ day of _____, 2025.

[signatures on the following page]

ATTEST:

**LOWER MAKEFIELD TOWNSHIP
BOARD OF SUPERVISORS**

David W. Kratzer Jr., Township Manager

Daniel R. Grenier, Chair

John B. Lewis, Vice Chair

Matt Ross, Treasurer

James McCartney, Secretary

Suzanne S. Blundi, Supervisor