

ORDINANCE NO.

FILE OF CITY COUNCIL

BILL NO.72 - 2023

JULY 19, 2023

AN ORDINANCE

Amending Part II General Legislation, Chapter 298 Flood Control, Article IV Administration by updating the language in Section 13 and Article VI by updating the language in Section 26.

BE IT ORDAINED BY THE COUNCIL OF THE CITY OF ALLENTOWN:

SECTION ONE: That Article IV, Section 13 and Article VI, Section 26 be amended as follows:

Article IV
Administration

§ 298-10 Designation of Floodplain Manager.

- A. The Floodplain Manager is hereby appointed to administer and enforce this chapter and is referred to herein as the "Floodplain Manager." The Floodplain Manager may fulfill the duties and responsibilities set forth in this chapter, delegate duties and responsibilities set forth in this chapter to qualified technical personnel, plan examiners, inspectors, and other employees, or enter into a written agreement or written contract with another agency or private sector entity to administer specific provisions of this chapter. Administration of any part of this chapter by another entity shall not relieve the City 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 Manager, the Floodplain Manager duties are to be fulfilled by the Director of Community and Economic Development or designee.

§ 298-11 Permit required.

A floodplain development (as the term "development" is defined in § **298-9**) permit shall be required before any construction or development is undertaken within any identified floodplain area within the City of Allentown.

§ 298-12 Duties and responsibilities of Floodplain Manager.

- A. The Floodplain Manager 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 chapter and all other applicable codes and ordinances.
- B. Prior to the issuance of any permit, the Floodplain Manager 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. In the case of existing structures, prior to the issuance of any floodplain development permit, the Floodplain Manager shall review the proposed cost of improvements or repairs and the preimprovement market value of the structure so that a substantial improvement/substantial damage determination can be made in accordance with FEMA's Substantial Improvement/Substantial Damage Desk Reference.
- D. In the case of existing structures, prior to the issuance of any floodplain development permit, the Floodplain Manager shall review the history of repairs to the subject building so that any cumulative substantial damage concerns can be addressed before the permit is issued.
- E. The Floodplain Manager shall maintain in perpetuity, or for the lifetime of the structure, all records associated with the requirements of this chapter, including, but not limited to, finished construction elevation data, permitting, inspection and enforcement.
- F. The Floodplain Manager is the official responsible for submitting a biennial report to FEMA concerning community participation in the National Flood Insurance Program as requested.
- G. The responsibility, authority and means to implement the commitments of the Floodplain Manager can be delegated from the person identified. However, the ultimate responsibility lies with the person identified in this chapter as the Floodplain Manager.
- H. The Floodplain Manager shall consider the requirements of the 34 Pa. Code and the 2015 IBC and the 2015 IRC, or the latest revision thereof as adopted by the Commonwealth of Pennsylvania.

§ 298-13 Application procedures and requirements.

- A. Application for such a floodplain development permit shall be made, in writing, to the Floodplain Manager on forms supplied by the City of Allentown and be accompanied with a \$25 nonrefundable application fee. Such application shall contain the following:
 - (1) Name and address of the applicant.
 - (2) Name and address of the owner of land on which proposed construction is to occur.
 - (3) Name and address of the contractor.
 - (4) Site location, including address.
 - (5) Listing of other permits required.
 - (6) Brief description of proposed work and estimated costs of construction, repairs or improvements, and the market value of the structure. If there is flood-related damage, then include a breakout of flood-related cost before the flood damage occurred where appropriate.
 - (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 floodplain development permits shall provide all the necessary information in sufficient detail and clarity to enable the Floodplain Manager to determine that:
 - (1) All such proposals are consistent with the need to minimize flood damage and conform with the

requirements of this chapter and all other applicable codes and ordinances;

- (2) All utilities and facilities, such as sewer, gas, electrical and water 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) Building materials are flood-resistant;
 - (6) Appropriate practices that minimize flood damage have been used; and
 - (7) Electrical, heating, ventilation, plumbing, air-conditioning equipment, and other service facilities have been designed and located to prevent water entry or accumulation.
- C. Applicants shall file the following minimum information plus any other pertinent information as may be required by the Floodplain Manager to make the above determination:
- (1) A completed floodplain development 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 and by what method the datum was established;
 - (b) The North American Vertical Datum of 1988 elevation of the base flood;
 - (c) Supplemental information as may be necessary under 34 Pa. Code, the 2015 IBC or the 2015 IRC, or the latest revision thereof as adopted by the Commonwealth of Pennsylvania.
 - (4) The following data and documentation:
 - (a) FEMA elevation certificate, certified by a professional land surveyor.
 - (b) Detailed information concerning any proposed floodproofing measures and corresponding elevations.
 - (c) If available, information concerning flood depths, pressures, velocities, impact and uplift forces and other factors associated with a base flood.

- (d) No-rise certification, certified by a registered professional engineer, to show that the cumulative effect of any proposed development within identified floodplain areas [See § 298-22A and B(2).] when combined with all other existing and anticipated development, will not cause any increase in the base flood elevation. AE Areas outside the designated floodway (flood fringe) are exempt from the no-rise requirement.
 - (e) 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.
 - (f) Detailed information needed to determine compliance with § 298-28F, Storage, and § 298-29, Development which may endanger human life, including:
 - [1] The amount, location and purpose of any materials or substances referred to in §§ 298-28F and 298-29 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 § 298-29 during a base flood.
 - (g) The appropriate component of the Department of Environmental Protection's "Planning Module for Land Development."
 - (h) Where any excavation or grading is proposed, a plan meeting the requirements of the Department of Environmental Protection to implement and maintain erosion and sedimentation control.
 - (i) The Floodplain Manager has the authority to request an independent third-party review, by a registered professional engineer, of the proposed project to evaluate for full compliance with Article VI: Technical Provisions contained in this ordinance and other applicable codes, ordinances, and regulations.
- D. Applications for permits shall be accompanied by a fee, payable to the municipality based upon the estimated cost of the proposed construction as determined by the Floodplain Manager.

§ 298-14 Review by Lehigh County Conservation District.

A copy of all applications and plans for any proposed construction or development equal to or greater than one acre in size and located in any identified floodplain area to be considered for approval shall be submitted by the Floodplain Manager to the Lehigh County Conservation District for review and comment prior to the issuance of a floodplain development permit. The recommendations of the Lehigh County Conservation District shall be considered by the Floodplain Manager for possible incorporation into the proposed plan.

§ 298-15 Review of application by others.

A copy of all plans and applications for any proposed construction or development in any identified floodplain area to be considered for approval may be submitted by the Floodplain Manager to any other appropriate agencies and/or individuals (e.g., planning commission, municipal engineer, etc.) for review and comment.

§ 298-16 Changes.

After the issuance of a floodplain development permit by the Floodplain Manager, 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 Manager. Requests for any such change shall be in writing and shall be submitted by the applicant to the Floodplain Manager for consideration.

§ 298-17 Start of construction.

- A. Work on the proposed construction or development shall begin within 180 days after the date of issuance of the floodplain development permit. Work shall also 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 Manager. The issuance of a floodplain development permit does not apply to any zoning, planning or building permit approvals.
- 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 Manager to approve such a request and the original permit is compliant with this chapter and the Flood Insurance Rate Map (FIRM)/Flood Insurance Study (FIS) in effect at the time the extension is granted.

§ 298-18 Inspections; revocation of permit.

- A. The Floodplain Manager or his designee may, upon advance notice and presentation of proper credentials:
 - (1) Investigate complaints;
 - (2) Enter upon any land for the purpose of surveying floodplain;
 - (3) Enter any land in a floodplain for the purpose of ascertaining the location and condition of obstructions;
 - (4) Enter land or, while under construction, any structure located in a floodplain for the purpose of ascertaining the compliance or noncompliance with this chapter.
- B. Whenever the Floodplain Manager or his designee has been refused access to property for the purpose of conducting a survey or an inspection, the Floodplain Manager or his designee may apply for an administrative warrant to the appropriate court authorized to issue administrative search warrants to enable him access and to inspect the property. It shall be sufficient probable cause to issue an administrative inspection warrant that the inspection is necessary to properly enforce the provisions of this chapter.
- C. In the event the Floodplain Manager or his designee discovers that work does not comply with the floodplain development permit or any applicable laws or ordinances, or that there has been a false statement or misrepresentation on an application by any applicant, the Floodplain Manager or his designee may revoke the floodplain development permit.

§ 298-19 Enforcement; violations and penalties.

- A. Notices. Whenever the Floodplain Manager 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 Manager shall give notice of such alleged violation as hereinafter provided. Such notice shall:

- (1) Be in writing.
 - (2) Include a statement of the reasons for its issuance.
 - (3) Allow a reasonable time, not to exceed a period of 30 days, for the performance of any act it requires.
 - (4) 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 commonwealth.
 - (5) Contain an outline of remedial actions which, if taken, will affect compliance with the provisions of this chapter.
- B. Penalties. 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 or direction of the Floodplain Manager or any other authorized employee of the municipality shall, upon conviction, pay a fine to the City of Allentown of not more than \$600, plus costs of prosecution, or imprisoned not more than 90 days, or both. 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 Floodplain Manager to be a public nuisance and abatable as such.

§ 298-20 Appeals.

- A. Any person aggrieved by any action or decision of the Floodplain Manager concerning the administration of the provisions of this chapter may appeal to the Zoning Hearing Board. Such appeal must be filed, in writing, within 30 days after the decision, determination or action of the Floodplain Manager.
- B. Upon receipt of such appeal, the Zoning Hearing Board shall consider the appeal in accordance with the Municipalities Planning Code.
- C. Any person aggrieved by any decision of the Zoning Hearing Board may seek relief therefrom by appeal to the Lehigh County Court, in accordance with the Municipalities Planning Code.
- D. Fee for appeals. All persons hereafter taking an appeal from the decision of the Floodplain Manager to the Zoning Hearing Board shall be subject to the payment of a reasonable fee, same to be decided upon from time to time by the Mayor of the City of Allentown and approved by City Council by ordinance for the filing, docketing, hearing, and recording of such appeal, as well as for the service of notices thereof. The fee or charge shall be paid to the City of Allentown prior to the entry or filing thereof. The Zoning Officer shall collect and receive all such appeal fees, and pay the same over to the City Treasurer, at the end of each and every month, and shall accompany such payment with a full and complete report of all appeal fees received during the course of the month.

Article VI

Technical Provisions

§ 298-26 **General provisions.**

A. Alteration or relocation of watercourse.

- (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 the City, and until all required permits or approvals have first been obtained from the Department of Environmental Protection Regional Office.
- (2) 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.
- (3) In addition, FEMA and the Pennsylvania Department of Community and Economic Development shall be notified prior to any alteration or relocation of any watercourse.

B. If the City of Allentown considers permitting the following encroachments: any development that causes a rise in the base flood elevations within the floodway; or any development occurring in Zones A1-30 and Zone AE without a designated floodway, which will cause a rise of more than one foot in the base flood elevation; or alteration or relocation of a stream (including but not limited to installing culverts and bridges), the applicant shall (as per 44 CFR 65.12):

- (1) Apply to FEMA for conditional approval of such action prior to permitting the encroachments to occur.
- (2) Upon receipt of the FEMA Administrator's conditional approval of map change and prior to approving the proposed encroachments, a community 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 Part 67.

C. 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.

D. With the exception of bridges, docks, piers and utilities, no new construction or development shall be located within the area measured 50 feet landward from the top-of-bank of any watercourse. Exceptions also include low impact municipal improvements that can enhance the areas adjacent to waterways without creating additional flooding risks, such as but not limited to trails, benches, wayfinding, trash receptacles, gardens, lighting, safety measures, and fencing. If development involves one of the listed exceptions, then the appropriate permit must also be obtained from the Department of Environmental Protection Regional Office.

§ 298-27 **Elevation and floodproofing requirements.**

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.
- (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 determined in accordance with § **298-22C** 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 at least as high as the depth number specified on the FIRM.
- (4) The design and construction standards and specifications contained in the PA Uniform Construction Code, Act 45, Title 34, as adopted and amended by the City of Allentown, Ordinance No. 14190, Bill 44 of 2004, 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, 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 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 determined in accordance with § **298-22C** 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 to at least as high as 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 March 1992), or with some other equivalent standard. 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) Any nonresidential structure that will be floodproofed must submit the following to the Floodplain Manager along with the nonresidential floodproofing certificate and prior to the issuance of the certificate of occupancy:
 - (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) Flood emergency operation plan detailing the procedures to be followed during a flooding event and must include information pertaining to how all components will operate properly under all conditions, including power failures. The design professional must produce the plan. An adequate plan must 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 when flooding threatens and 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 in the event that 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.
 - [5] A periodic training and exercise program to keep personnel and occupants aware of their duties and responsibilities. Training drills should be held at least once a year and should be coordinated with community officials.
- (6) The design and construction standards and specifications contained in the PA Uniform Construction Code, Act 45, Title 34, as adopted and amended by the City of Allentown, Ordinance No. 14190, Bill 44 of 2004, 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 floodwaters 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 separate walls;
 - (b) The bottom of all openings shall be no higher than one 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.
- D. Historic structures. Historic structures undergoing repair or rehabilitation that would constitute a substantial improvement as defined in this chapter must comply with all chapter requirements that do

not preclude the structure's continued designation as an historic structure. Documentation that a specific chapter 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 chapter 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, but 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) 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 floodwaters.
 - (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 openings having a net total area of not less than one square inch for every square foot of enclosed space.
 - (b) The bottom of all openings shall be no higher than one foot above grade.
 - (c) Openings may be equipped with screens, louvers, etc., or other coverings or devices, provided that they permit the automatic entry and exit of floodwaters.
 - (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 Article IX. If a variance is granted, a signed declaration of land restriction (nonconversion agreement) shall be recorded on the property deed prior to issuance of the certificate of occupancy.

§ 298-28 Design and construction standards.

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

- A. Fill. If fill is permitted, it shall:
- (1) Extend laterally at least 15 feet beyond the building line from all points;
 - (2) Consist of soil or small rock materials only; sanitary landfills shall not be permitted;
 - (3) Be compacted to provide the necessary permeability and resistance to erosion, scouring, or settling;

- (4) Be no steeper than one vertical to two horizontal feet unless substantiated data justifying steeper slopes are submitted to and approved by the Floodplain Manager; and
- (5) Be used to the extent to which it does not adversely affect adjacent properties.
- 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 supply and sanitary sewer facilities and systems shall be located, designed, and constructed to minimize or eliminate flood damages and the infiltration of floodwaters.
 - (2) Sanitary sewer facilities and systems shall be designed to prevent the discharge of untreated sewage into floodwaters.
 - (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 PA Uniform Construction Code, Act 45, Title 34, as adopted and amended by the City of Allentown, Ordinance No. 14190, Bill 44 of 2004, and FEMA No. 348, "Protecting Building Utilities From Flood Damages," and the International Private Sewage Disposal Code shall be utilized.
- 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 § **298-29**, 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 offer the minimum obstruction to the flow of water and shall be designed to have a minimum effect upon the flow and height of floodwater.
- H. Anchoring.
 - (1) All buildings and structures shall be firmly anchored in accordance with accepted engineering practices to prevent flotation, collapse or lateral movement.
 - (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 and 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 a marine or water-resistant paint or other finishing material.

K. Electrical components.

- (1) Electrical distribution panels shall be at least three 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 and shall be anchored to resist floatation, collapse and lateral movement;
- (2) Ductwork shall be elevated to 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 floodwaters into the system and discharges from the system into floodwaters. Additional provisions shall be made for the drainage of these systems in the event that floodwater infiltration occurs.

N. Uniform Construction Code coordination. The standards and specifications contained in the PA Uniform Construction Code, Act 45, Title 34, as adopted and amended by the City of Allentown, Ordinance No. 14190, Bill 44 of 2004, 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.

§ 298-29 Development that may endanger human life.

Within any identified floodplain area, any structure of the kind described in Subsection A below shall be prohibited. If a variance is obtained in accordance with the criteria in Article **IX**, then the following provisions apply (§ **298-29B**, **C**, and **D**):

- 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 subject to the provisions of this section, 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 **A** above shall be prohibited within the area measured 50 feet landward from the top-of-bank of any watercourse.
- C. Within any Floodway Area, any structure of the kind described in Subsection **A** above shall be prohibited. Where permitted within any identified floodplain area, any new or substantially improved residential structure of the kind described in Subsection **A** above shall be elevated to remain completely dry up to at least 1 1/2 feet above base flood elevation and built in accordance with §§ **298-26, 298-27** and **298-28**.
- D. New or substantially improved nonresidential structures.
- (1) Where permitted within any identified floodplain area, any new or substantially improved nonresidential structure of the kind described in Subsection **A** above shall be built in accordance with §§ **298-26, 298-27** and **298-28**, including:
 - (a) Elevated, or designed and constructed to remain completely dry up to at least 1 1/2 feet above base flood elevation; and
 - (b) Designed to prevent pollution from the structure or activity during the course of a base flood.

- (2) 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 March 1992), or with some other equivalent watertight standard.

§ 298-30 Special requirements for subdivisions and development.

All subdivision proposals and development proposals containing at least 50 lots or at least five 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) and Letter of Map Revision (LOMR). Submittal requirements and processing fees shall be the responsibility of the applicant.

§ 298-31 Special requirements for manufactured homes.

- A. Within any identified floodplain area new manufactured homes shall be prohibited except where permitted by a variance granted by the Zoning Hearing Board pursuant to Article **IX** of this chapter.
- B. Where permitted within any identified floodplain area, all replacement manufactured homes, and any improvements thereto, shall be:
 - (1) Placed on a permanent foundation;
 - (2) Elevated so that the lowest floor of the manufactured home is at least 1 1/2 feet above base flood elevation; and
 - (3) Anchored to resist flotation, collapse, or lateral movement.
- C. Equipment requirement.
 - (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 and shall be anchored to resist flotation, collapse, and lateral movement.
 - (2) Ductwork shall be elevated to or above the regulatory flood elevation or floodproofed to remain water resistant.
- D. Installation of manufactured homes shall be done in accordance with the manufacturers' installation instructions as provided by the manufacturer. Where the applicant cannot provide the above information, the requirements of Appendix E of the 2015 International Residential Building Code or the U.S. Department of Housing and Urban Development's Permanent Foundations for Manufactured Housing, 1984 Edition, 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 2015 IBC, and the 2015 IRC, or the latest revision thereto as adopted by the Commonwealth of Pennsylvania, 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.

§ 298-32 Special requirements for recreational vehicles.

Recreational vehicles in Zones A, A1-30, AH and AE must:

- A. Be on the site for fewer than 180 consecutive days; and
- B. Be fully licensed and ready for highway use; and

C. Be removed from the floodplain when a flood warning is issued.

SECTION TWO: That this Ordinance takes effect ten (10) days after final passage.

SECTION THREE: That all Ordinances inconsistent with the above provisions are repealed to the extent of their inconsistency.

Legislative Template

- **What Department or bureau is Bill originating from? Where did the initiative for the bill originate?**

Community & Economic Development: Planning/Zoning

Text amendment to 298-26D of the Flood Control Ordinance

Text amendment to 298-13C(4) of the Flood Control Ordinance

- **Summary and Facts of the Bill**

Text Amendment to 298-26D:

298-26D is a higher standard that is not a part of the FEMA 44 CFR Part 60 National Flood Insurance Program (NFIP) regulations. 298-26D regulates development that is 50 feet landward from the top bank of any watercourse. The purpose of this regulation is to limit obstructions and encroachments with high impact damage potential along watercourses in the 100-Year Floodplain:

With the exception of bridges, docks, piers and utilities, no new construction or development shall be located within the area measured 50 feet landward from the top-of-bank of any watercourse. If development involves one of the listed exceptions, then the appropriate permit must also be obtained from the Department of Environmental Protection Regional Office.

We would like to amend the regulation to the following:

With the exception of bridges, docks, piers and utilities, no new construction or development shall be located within the area measured 50 feet landward from the top-of-bank of any watercourse. Exceptions also include low impact municipal improvements that can enhance the areas adjacent to waterways without creating additional flooding risks, such as but not limited to trails, benches, wayfinding, trash receptacles, gardens, lighting, safety measures, and fencing. If development involves one of the listed exceptions, then the appropriate permit must also be obtained from the Department of Environmental Protection Regional Office.

Text Amendment to 298-13C(4)

298-13C(4) is a list of application requirements for the Floodplain Development Permit. We are requesting to add the following regulation:

298-13C(4)(i): The Floodplain Manager has the authority to request an independent third-party review, by a registered professional engineer, of the proposed project to evaluate for full compliance with Article VI: Technical Provisions contained in this ordinance and other applicable codes, ordinances and regulations.

- **Purpose – Please include the following in your explanation:**
 - **What does the Bill do – what are the specific goals/tasks the bill seek to accomplish**
- Text Amendment to 298-26D:

There are both existing and planned projects, such as walking trails, along the watercourses in our parks. The construction and maintenance of walking trails and other municipal enhancements are prohibited under this regulation if they are within 50 feet landward of a watercourse.

Text Amendment to 298-13C(4):

Requiring a third party review will provide a more in-depth technical review of the project design to ensure full compliance with the of Flood Control Ordinance, 44 CFR Part 60 NFIP and other applicable regulations.

- **What are the Benefits of doing this/Down-side of doing this**

Requiring a third party review ensures that the design professionals are utilizing appropriate construction practices in order to prevent or minimize flood damage. Because the third party reviewer will be providing a more in-depth technical review of plans it decreases the liability against the City.

- **How does this Bill related to the City's Vision/Mission/Priorities**

Text Amendment to 298-26D:

The Parks and Recreation mission statement is to enhance the quality of life in our city by providing and maintaining quality parks, trails and green space. The purpose of this proposed text amendment is to further support their mission while keeping in compliance with 44 CFR Part 60 NFIP regulations and our adopted Flood Control Ordinance.

Text Amendment to 298-13(C)(4):

The intent of the Flood Control Ordinance is to promote the general health, welfare, and safety of the community by encouraging the utilization of appropriate construction practices in order to prevent or minimize flood damage. This third party review will ensure that proposed projects are being constructed in a manner that prevent or minimize flood damage.

- **Financial Impact – Please include the following in your explanation:**

- **Cost (Initial and ongoing)**

No cost associated with either text amendment.

- **Benefits (initial and ongoing)**

No cost associated with either text amendment.

- **Funding Sources – Please include the following in your explanation:**

- **If transferring funds, please make sure bill gives specific accounts; if appropriating funds from a grant list the agency awarding the grant.**

NA - no cost associated with either text amendment.

- **Priority status/Deadlines, if any**

Text Amendment to 298-26D:

There are planned parks projects, such as the MLK Trail extension, that will not be able to be approved under the current regulation.

Text Amendment to 298-13(C)(4)

We would like to begin third party reviews as soon as possible.

- **Why should Council unanimously support this bill?**

Text Amendment to 298-26D:

Many municipal enhancement projects occur near or along our watercourses. The text amendment to 298-26D will allow Parks and Recreation, as well as other City Departments, to continue to develop and enhance our parks and municipal land in a flood-conscious manner while keeping in compliance with 44 CFR Part 60 NFIP regulations and our adopted Flood Control Ordinance.

Text Amendment 298-13(C)(4):

Requiring a third party review will provide a more in-depth technical review to ensure that proposed projects will be utilizing appropriate construction practices in order to prevent or minimize flood damage and therefore contributing to the general health, welfare, and safety of our community.