

Chapter 8

Floodplains

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Part 1**General Provisions****§8-101. 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.

(*Ord. 368, 4/14/2003, §63-1*)

§8-102. Applicability.

It shall be unlawful for any person, partnership, business or corporation to undertake, or cause to be undertaken, any construction or development anywhere in an identified floodplain area within the Borough unless a building permit has been obtained from the Building Permit Officer in accordance with applicable building code regulations. If the requirements of the Borough Building Code and of this Chapter conflict with respect to the construction or development within an identified floodplain area, then the more strict requirement shall apply. This Chapter shall apply only to construction and development activities within an identified floodplain area and shall not supersede or change the building code requirements and procedures applicable in nonfloodplain areas.

(*Ord. 368, 4/14/2003, §63-2*)

§8-103. Abrogation and Greater Restrictions.

This Chapter supersedes any other conflicting provisions which may be in effect in identified floodplain areas including, without limitation, *Ord. 296*. 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.

(*Ord. 368, 4/14/2003, §63-3*)

§8-104. Warning and Disclaimer of Liability.

1. The degree of flood protection sought by the provisions of this Chapter is considered reasonable for regulatory purposes and is based on acceptable engineering methods of study. Larger floods may occur, 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.

2. This Chapter shall not create liability on the part of the Borough or any officer or employee thereof for any flood damages that result from reliance on this Chapter or any administrative decision lawfully made thereunder.

(Ord. 368, 4/14/2003, §63-5)

§8-105. Legislative History.

By letter dated November 15, 2002, the Federal Emergency Management Agency (“FEMA”) formally notified the Borough of the final flood elevation determination for the Borough. FEMA has further directed the Borough to adopt floodplain management regulations, by May 15, 2003, that are consistent with Suggested Provisions For Floodplain Management prepared by the Pennsylvania Department of Community and Economic Development, which suggested provisions are the basis for this Chapter.

(Ord. 368, 4/14/2003, §63-6)

Part 2**Administration****§8-201. Issuance of Building Permit for Work Within Identified Floodplain Area.**

1. The Building Permit Officer shall issue a building 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.

2. Prior to the issuance of any building permit, the Building Permit Officer 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, 35 P.S. §750.1 *et seq.*, as amended; the Pennsylvania Dam Safety and Encroachments Act, 32 P.S. §693.1 *et seq.*, as amended; the Pennsylvania Clean Streams Act, 35 P.S. §691.1 *et seq.*, as amended; and the U.S. Clean Water Act, §404, 33 U.S.C. §1344. No permit shall be issued until this determination has been made.

3. 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 Borough and until all required permits or approvals have been first obtained from the Department of Environmental Protection, Bureau of Dams, Waterways and Wetlands.

4. In addition, the Federal Insurance Administrator and Pennsylvania Department of Community and Economic Development shall be notified by the Borough prior to any alteration or relocation of any watercourse.

(*Ord. 368, 4/14/2003, §63-7*)

§8-202. Application Procedures and Requirements.

1. Application for such a building permit shall be made, in writing, to the Building Permit Officer on forms supplied by the Borough. Such application shall contain the following:

- A. Name and address of applicant.
- B. Name and address of owner of land on which proposed construction is to occur.
- C. Name and address of contractor.
- D. Site location.
- E. Listing of other permits required.
- F. Brief description of proposed work and estimated cost.
- G. A plan of the site showing the exact size and location of the proposed construction as well as any existing buildings or structures.

2. If any proposed construction or development is located entirely or partially within any identified floodplain area, applicants for building permits shall provide all the necessary information in sufficient detail and clarity to enable the Building Permit

Officer to determine that:

A. 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.

B. All utilities and facilities, such as sewer, gas, electrical and water systems are located and constructed to minimize or eliminate flood damage.

C. Adequate drainage is provided so as to reduce exposure to flood hazards.

3. Applicants shall file the following minimum information plus any other pertinent information as may be required by the Building Permit Officer to make the above determination:

A. A completed building permit application form.

B. A plan of the entire site, clearly and legibly drawn at a scale of 1 inch being equal to 100 feet or less, showing the following:

(1) North arrow, scale, and date.

(2) Topographic contour lines, if available.

(3) All property and lot lines including dimensions, and the size of the site expressed in acres or square feet.

(4) The location of all existing and proposed buildings, structures, and other improvements, including the location of any existing or proposed subdivision and land development.

(5) The location of all existing streets, drives, and other access ways.

(6) 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.

C. Plans of all proposed buildings, structures and other improvements, drawn at suitable scale showing the following:

(1) The proposed lowest floor elevation of any proposed building based upon National Geodetic Vertical Datum of 1929.

(2) The elevation of the 100-year flood.

(3) If available, information concerning flood depths, pressures, velocities, impact and uplift forces and other factors associated with a 100-year flood.

(4) Detailed information concerning any proposed floodproofing measures.

(5) Supplemental information as may be necessary under 34 Pa.Code, Chapters 401–405, as amended, and §§1612.5.1, 104.7, and 109.3 of the 2006 IBC and §§R106.1.3 and R104.7 of the 2006 IRC. [*Ord. 387*]

D. The following data and documentation:

(1) Documentation, certified by a registered professional engineer or architect, to show that the cumulative effect of any proposed development within an FE (Special Floodplain Area), when combined with all other existing and anticipated development, will not increase the elevation of the 100-year flood more than 1 foot at any point.

(2) 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 100-year 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.

(3) Detailed information needed to determine compliance with §8-405.F, "Storage," and §8-406, "Development Which May Endanger Human Life," including:

(a) The amount, location and purpose of any materials or substances referred to in §§8-405.F and 8-406 which are intended to be used, produced, stored or otherwise maintained on site.

(b) 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 §8-406 during a 100-year flood.

(4) The appropriate component of the Department of Environmental Protection's "Planning Module for Land Development."

(5) Where any excavation of grading is proposed, a plan meeting the requirements of the Department of Environmental Protection, to implement and maintain erosion and sedimentation control.

(*Ord. 368, 4/14/2003, §63-8; as amended by Ord. 387, 12/14/2009*)

§8-203. Review by County Conservation District.

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 Building Permit Officer to the County Conservation District for review and comment prior to the issuance of a building permit. The recommendations of the Conservation District shall be considered by the Building Permit Officer for possible incorporation into the proposed plan.

(*Ord. 368, 4/14/2003, §63-9*)

§8-204. 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 Building Permit Officer to any other appropriate agencies and/or individuals (e.g., Planning Commission, Borough Engineer, etc.) for review and comment.

(*Ord. 368, 4/14/2003, §63-10*)

§8-205. Changes.

After the issuance of a building permit by the Building Permit Officer, 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 Building Permit Officer. Requests for any such change shall be in writing, and shall be submitted by the applicant to Building Permit Officer for consideration.

(*Ord. 368, 4/14/2003, §63-11*)

§8-206. Placards.

In addition to the building permit, the Building Permit Officer shall issue a placard which shall be displayed on the premises during the time construction is in progress. This placard shall show the number of the building permit the date of its issuance and be signed by the Building Permit Officer.

(*Ord. 368, 4/14/2003, §63-12*)

§8-207. Start of Construction.

1. Work on the proposed construction and/or development shall begin within 6 months and shall be completed within 12 months after the date of issuance of the building permit or the permit shall expire unless a time extension is granted, in writing, by the Building Permit Officer. Construction and/or development shall be considered to have started with the preparation of land, land clearing, grading, filling, excavation of basement, footings, piers, or foundations, erection of temporary forms, the installation of piling under proposed subsurface footings, or the installation of sewer, gas and water pipes, or electrical or other service lines from the street.

2. Time extensions shall be granted only if a written request is submitted by the applicant, which sets forth sufficient and reasonable cause for the Building Permit Officer to approve such a request.

(*Ord. 368, 4/14/2003, §63-13*)

§8-208. Inspection and Revocation.

1. During the construction period, the Building Permit Officer 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 shall make as many inspections during and upon completion of the work as are necessary.

2. In the discharge of his duties, the Building Permit Officer 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.

3. In the event the Building Permit Officer 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 Building Permit Officer shall revoke the building permit and report such fact to the Council for whatever action it considers necessary.

4. A record of all such inspections and violations of this Chapter shall be maintained.

5. The requirements of 34 Pa.Code, Chapters 401–405, and the 2006 IBC, §§109.3.3, 1612.5.1, 104.7 and 103.8, and the 2006 IRC, §§R106.1.3, R109.1.3, and R104.7, or latest revisions thereof pertaining to elevation certificates and record retention shall be considered. [*Ord. 387*]

(*Ord. 368, 4/14/2003, §63-14; as amended by Ord. 387, 12/14/2009*)

§8-209. Fees.

Applications for a building permit shall be accompanied by a fee intended to defray costs of floodplain regulation review and is in addition to the usual building permit fee imposed pursuant to the Uniform Construction Code [Chapter 5, Part 1], payable to the municipality based upon the estimated cost of the proposed construction as determined by the Building Permit Officer at the following rates, which rates may be changed from time to time by resolution of Borough Council.

(*Ord. 368, 4/14/2003, §63-15; as amended by Ord. 387, 12/14/2009*)

§8-210. Enforcement.

1. *Notices.* Whenever the Building Permit Officer 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 Building Permit Officer shall give notice of such alleged violation as hereinafter provided. Such notice shall (A) be in writing; (B) include a statement of the reasons for its issuance; (C) allow a reasonable time not to exceed a period of 30 days for the performance of any act it requires; (D) 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; (E) contain an outline of remedial action which, if taken, will effect compliance with the provisions of this Chapter.

2. *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 Building Permit Officer or any other authorized employee of the municipality shall be guilty of an offense and, upon conviction thereof, shall be sentenced to pay a fine of not less than \$25 nor more than \$1,000 plus costs and, in default of payment of said fine and costs, to a term of imprisonment not to exceed 30 days. Each day that a violation of this Part continues shall constitute a separate offense. 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 and all such persons shall be required to correct or remedy such violations and noncompliances 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 Council to be a public nuisance and abatable as such. [*Ord. 387*]

(*Ord. 368, 4/14/2003, §63-16; as amended by Ord. 387, 12/14/2009*)

§8-211. Appeals.

1. Any person aggrieved by any action or decision of the Building Permit Officer concerning the administration of the provisions of this Chapter, may appeal to the Council. Such appeal must be filed, in writing, within 30 days after the decision, determination or action of the Building Permit Officer.

2. Upon receipt of such appeal the Council shall set a time and place, for the purpose of considering the appeal. Notice of the time and place at which the appeal will

be considered shall be given to all parties. The appeal hearing shall be conducted in accordance with the Local Agency Law, 2 Pa.C.S.A. §§551 *et seq.*, 751 *et seq.*

3. Any person aggrieved by any decision of the Council may seek relief therefrom by appeal to court, as provided by the laws of this Commonwealth including the Pennsylvania Flood Plain Management Act, 32 P.S. §679.101 *et seq.*, and the Local Agency Law, 2 Pa.C.S.A. §§551 *et seq.*, 751 *et seq.*

(*Ord. 368, 4/14/2003, §63-17*)

Part 3**Identification of Floodplain Areas****§8-301. Identification.**

The identified floodplain area shall be those areas of the Borough of Thornburg, which are subject to the 100-year flood, as identified in the Flood Insurance Study (FIS) dated May 15, 2003 and the accompanying maps prepared for the Borough by the Federal Emergency Management Agency (FEMA), or the most recent revision thereof. (Ord. 368, 4/14/2003, §63-18)

§8-302. Description of Floodplain Areas.

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

A. *FW (Floodway Area)*. The areas identified as “Floodway” in the AE Zone in the Flood Insurance Study prepared by the FEMA. The term shall also include floodway areas which have been identified in other available studies or sources of information for those floodplain areas where no floodway has been identified in the Flood Insurance Study.

B. *FF (Flood-Fringe Area)*. The remaining portions of the 100-year floodplain in those areas identified as an AE Zone in the Flood Insurance Study, where a floodway has been delineated. The basis for the outermost boundary of this area shall be the 100-year flood elevations as shown in the flood profiles contained in the Flood Insurance Study.

C. *FE (Special Floodplain Area)*. The areas identified as Zone AE in the Flood Insurance Study, where 100-year flood elevations have been provided, but no floodway has been delineated.

D. *FA (General Floodplain Area)*. The areas identified as Zone A in the FIS for which no 100-year flood elevations have been provided. When available, information from other Federal, State, and other acceptable sources shall be used to determine the 100-year elevation, as well as a floodway area, if possible. When no other information is available, the 100-year elevation shall be determined by using a point on the boundary of the identified floodplain area which is nearest the construction site in question.

In lieu of the above, the Borough 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 Borough. (Ord. 368, 4/14/2003, §63-19)

§8-303. Changes in Identification of Area.

The identified floodplain area may be revised or modified by the Council where studies or information provided by a qualified agency or person documents the need for

such revision. However, prior to any such change, approval must be obtained from the Federal Insurance Administration (FIA).

(Ord. 368, 4/14/2003, §63-20)

§8-304. Boundary Disputes.

Should a dispute concerning any identified floodplain boundary arise, an initial determination shall be made by the Borough Engineer and any party aggrieved by a determination may appeal, within 30 days of the determination, to the Council in accordance with the Local Agency Law, 2 Pa.C.S.A. §§551 *et seq.*, 751 *et seq.* The burden of proof shall be on the appellant.

(Ord. 368, 4/14/2003, §63-21)

Part 4**Technical Provisions****§8-401. General.**

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 municipality, and until all required permits or approvals have been first obtained from the Department of Environmental Protection, Bureau of Dams, Waterways and Wetlands.

In addition, the Federal Emergency Management Agency and Pennsylvania Department of Community and Economic Development, shall be notified prior to any alteration or relocation of any watercourse.

2. 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. (Ord. 368, 4/14/2003, §63-22)

§8-402. Special Requirements for FW, FE, and FA Areas.

1. With any FW (Floodway Area), the following provisions apply:

A. Any new construction, development, use, activity, or encroachment that would cause any increase in flood heights shall be prohibited.

B. No new construction or development shall be allowed, unless a permit is obtained from the Department of Environmental Protection, Bureau of Dams, Waterways and Wetlands.

2. Within any FE (Special Floodplain Area), no new construction or development shall be allowed unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the elevation of the 100-year flood more than 1 foot at any point.

3. Within any FE (Special Floodplain Area) or FA (General Floodplain Area), the following provisions apply:

A. 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, Bureau of Dams, Waterways and Wetlands.

B. No new construction or development shall be located within the area measured 50 feet landward from the top-of-bank of any watercourse.

C. Any new construction or development, which would cause any increase in flood heights shall be prohibited within any floodway area.

(Ord. 368, 4/14/2003, §63-23)

§8-403. Elevation and Floodproofing Requirements.

1. *Residential Structures.* Within any identified floodplain area, any new

construction or substantial improvement of a residential structure shall have the lowest floor (including basement) elevated up to, or above the regulatory flood elevation. The design and construction standards and specifications contained in the 2006 IBC, §§1612.4, 1603.1.6, and 3403.1, and in the 2006 IRC, §§R323.1.4, R323.2.1, and R323.2.2, and ASCE 24, §§2.4, 2.5, and Chapter 5, and 34 Pa.Code, Chapters 401–405, as amended, shall be utilized. [Ord. 387]

2. *Nonresidential Structures.*

A. Within any identified floodplain area, 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 by such structure shall remain either completely or essentially dry during any flood up to that height.

B. Any nonresidential structure, or part thereof, having a lowest floor which is not elevated to at least 1½ feet above the 100-year flood elevation, shall be floodproofed in a completely or essentially dry manner in accordance with the WI 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.

C. The design and construction standards and specifications contained in the 2006 IBC, §§1603.1.2, 1603.1.6, 1605.2.2, 1606.5, 1612.5.1, and 3403.1, and ASCE 24, §2.4 and Chapter 7, and 34 Pa.Code, Chapters 401–405, as amended, shall be utilized. [Ord. 387]

3. *Space below the Lowest Floor.*

A. Fully enclosed space below the lowest floor (including basement) is prohibited.

B. Partially enclosed space below the lowest floor (including basement) 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 “partially enclosed space” also includes crawl spaces. Designs for meeting this requirement must either be certified by a registered professional engineer or architect, or meet or exceed the following minimum criteria:

(1) A minimum of two openings having a net total area of not less than 1 square inch for every square foot of enclosed space.

(2) The bottom of all openings shall be no higher than 1 foot above grade.

(3) Openings may be equipped with screens, louvers, etc. or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

C. Consideration may be given to the requirements of 34 Pa.Code, Chapters 401–405, as amended, and the 2006 IRC, §§R323.2.2 and R323.1.4, and the 2006

IBC, §§1612.4, 1612.5, 1202.3.2 and 1202.3.3. [Ord. 387]

4. *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:

A. 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.

B. Floor area shall not exceed 600 square feet.

C. The structure will have a low damage potential.

D. The structure will be located on the site so as to cause the least obstruction to the flow of floodwaters.

E. Power lines, wiring, and outlets will be at least 1½ feet above the 100-year flood elevation.

F. Permanently affixed utility equipment and appliances such as furnaces, heaters, washers, dryers, etc., are prohibited.

G. Sanitary facilities are prohibited.

H. The structure shall be adequately anchored to prevent flotation or 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:

(1) A minimum of two openings having a net total area of not less than 1 square inch for every square foot of enclosed space.

(2) The bottom of all openings shall be no higher than 1 foot above grade.

(3) Openings may be equipped with screens, louvers, etc. or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

(Ord. 368, 4/14/2003, §63-24; as amended by Ord. 387, 12/14/2009)

§8-404. 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 used, 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 Building Permit Officer.

(5) Be used to the extent to which it does not adversely affect adjacent

properties. The provisions contained in the 2006 IBC, §§1801.1 and 1803.4, shall be utilized. [Ord. 387]

B. *Drainage Facilities.* Storm drainage facilities shall be designed to convey the flow of storm water runoff in a safe and efficient manner. The system shall insure 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. The provisions contained in the 2006 IBC, Appendix G401.5, shall be utilized. [Ord. 387]

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 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 sewage 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 34 Pa.Code, Chapters 401–405, as amended, and contained in the 2006 IBC, Appendix G, §§401.3 and 401.4, the 2006 IRC §323.1.6, the ASCE 24-98, §8.3, FEMA #348, “Protecting Building Utilities from Flood Damages,” and the International Private Sewage Disposal Code, Chapter 3, shall be utilized. [Ord. 387]

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 1 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 §8-405, “Development Which May Endanger Human Life,” shall be stored at or above the regulatory flood elevation and/or flood proofed 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.

(3) The design and construction requirements of the UCC pertaining to this paragraph as referred to in 34 Pa.Code, Chapters 401–405, as amended, and contained in the 2006 IBC, §§1605.2.2, 1605.3.1.2, 1612.4, and Appendix G501.3, the 2006 IRC, §§R301.1 and R323.1.1, and ASCE 24-98, §5.6, shall be utilized. [*Ord. 387*]

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.

(5) The provisions of the UCC pertaining to this paragraph and referenced in 34 Pa.Code, Chapters 401–405, as amended, and contained in the 2006 IBC, §§801.1.3, 1403.2, 1403.4, 1403.6, and 1404.2, the 2006 IRC, §§R323.1.7 and R501.3, and ASCE 24-98, Chapter 6. [*Ord. 387*]

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.) shall be finished with a “marine” or “water-resistant” paint or other finishing material.

(4) The standards and specifications contained in 34 Pa.Code, Chapters 401–405, as amended, the 2006 IBC, §§801.1.3, 1403.7, and Appendix G, and the 2006 IRC, §R323.1.7. [*Ord. 387*]

K. *Electrical Components.*

(1) Electrical distribution panels shall be at least 3 feet above the 100-year flood elevation.

(2) Separate electrical circuits shall serve lower levels and shall be dropped from above.

(3) The provisions pertaining to the above provisions and referenced in the UCC and 34 Pa.Code, Chapters 401–405, as amended, and contained in the 2006 IBC, §1612.4, the 2006 IRC, §R323.1.5, the 2006 IFGC, §§R301.5 and R1601.3.8, and ASCE 24, Chapter 8, shall be utilized. [*Ord. 387*]

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) The provisions pertaining to the above provisions and referenced in the UCC and 34 Pa.Code, Chapters 401–405, as amended, and contained in the 2006 IBC, §1612.4, the 2006 IRC, §R323.1.5, the 2006 IFGC, §§R301.5 and R1601.3.8, and ASCE 24, Chapter 8, shall be utilized. [Ord. 387]

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 Coordination*. The standards and specifications contained in 34 Pa.Code, Chapters 401–405, as amended, and not limited to the following provisions shall apply to the above and all other parts and sections of this Chapter, to the extent that they are more restrictive and/or supplement the requirements of this Chapter:

(1) *International Building Code* (IBC) 2006, or the latest edition thereof: §§801, 1202, 1403, 1603, 1605, 1612, 3402, and Appendix G.

(2) *International Residential Building Code* (IRC) 2006, or the latest edition thereof: §§R104, R105, R109, R323, Appendix AE101, Appendix E, and Appendix J.

[Ord. 387]

(Ord. 368, 4/14/2003, §63-25; as amended by Ord. 387, 12/14/2009)

§8-405. Development Which May Endanger Human Life.

1. In accordance with the Pennsylvania Flood Plain Management Act, 32 P.S. §679.101 *et seq.*, and the regulations adopted by the Department of Community and Economic Development as required by the Act, any new or substantially improved structure which:

A. Will be used for the production or storage of any of the following dangerous materials or substances.

B. 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.

C. Will involve the production, storage, or use of any amount of radioactive substances.

D. 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.

2. Within any FW (Floodway Area), any structure of the kind described in subsection .1, above, shall be prohibited.

3. Within any FE (Special Floodplain Area) or FA (General Floodplain Area), any new or substantially improved structure of the kind described in subsection .1, above, shall be prohibited within the area measured 50 feet landward from the top-of-bank of any watercourse.

4. Where permitted within any floodplain area, any new or substantially improved structure of the kind described in subsection .1, above, shall be:

A. Elevated or designed and constructed to remain completely dry up to at least 1½ feet above the 100-year flood.

B. Designed to prevent pollution from the structure or activity during the course of a 100-year flood.

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.

(Ord. 368, 4/14/2003, §63-26)

§8-406. Special Requirements for Manufactured Homes.

1. Within any FW (Floodway Area), manufactured homes shall be prohibited.

2. Within any FA (General Floodplain Area) or FE (Special Floodplain Area), manufactured homes shall be prohibited within the area measured 50 feet landward from the top-of-bank of any watercourse.

3. Where permitted by other applicable ordinances within any floodplain area, all manufactured homes, and any improvements thereto, shall be:

A. Placed on a permanent foundation.

B. Elevated so that the lowest floor of the manufactured home is 1½ feet or more above the elevation of the 100-year flood.

C. Anchored to resist flotation, collapse, or lateral movement.

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 2006 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, shall apply and 34 Pa.Code, Chapters 401–405. [*Ord. 387*]

E. Consideration shall be given to the installation requirements of 2006 IBC, Appendix G, §501.1-3, and the 2006 IRC, §§R323.2, R323.3, R102.7.1, R105.3.1.1, and Appendix AE101, 604 and 605, or the most recent revisions thereto, and 34 Pa.Code, Chapters 401–405, as amended, where appropriate and/or applicable to units where the manufacturers' standards for anchoring can not be provided or were not established for the units proposed installation. [*Ord. 387*]

(*Ord. 368, 4/14/2003, §63-27; as amended by Ord. 387, 12/14/2009*)

Part 5**Activities Requiring Special Permits****§8-501. General.**

In accordance with the administrative regulations promulgated by the Department of Community and Economic Development to implement the Pennsylvania Flood Plain Management Act, 32 P.S. §679.101 *et seq.*, 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.

(Ord. 368, 4/14/2003, §63-28)

Part 6**Existing Structures in Identified Floodplain Areas****§8-601. Existing Structures.**

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

(*Ord. 368, 4/14/2003, §63-29*)

§8-602. Improvements.

1. The following provisions shall apply whenever any improvement is made to an existing structure located within any identified floodplain area:

A. No expansion or enlargement of an existing structure shall be allowed within any floodway area that would cause any increase in the elevation of the 100-year flood.

B. No expansion or enlargement of an existing structure shall be allowed within any FE area that would, together with all other existing and anticipated development, increase the 100-year flood elevation more than 1 foot at any point.

C. Any modification, alteration, reconstruction, or improvement, of any kind to an existing structure, to an extent or amount of 50 percent 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. Any modification, alteration, reconstruction, or improvement of any kind to an existing structure, to an extent or amount of less than 50 percent of its market value, shall be elevated and/or floodproofed to the greatest extent reasonably feasible given the scope, size, cost and nature of the improvement.

2. The above activity shall also address the requirements of 34 Pa.Code, Chapters 401–405, as amended, and the 2006 IBC, §§3402.1 and 1612.4, and the 2006 IRC, §§R105.3.1.1 and R323.1.4. [*Ord. 387*]

3. The requirements of 34 Pa.Code, Chapters 401–405, as amended, and the 2006 IRC, §§R102.7.1, R105.3.1, R105.3.1.1, and Appendices E and J, or the latest revision thereof, and the 2006 IBC, §§101.3, 3403.1, and Appendix G or the latest revision thereof, shall also be utilized in conjunction with the provisions of this Section. [*Ord. 387*]

(*Ord. 368, 4/14/2003, §63-30; as amended by Ord. 387, 12/14/2009*)

Part 7**Variances****§8-701. General.**

If compliance with any of the requirements of this Chapter would result in an exceptional hardship to a prospective builder, developer or landowner, the Borough may, upon request, grant relief from the strict application of the requirements.

(*Ord. 368, 4/14/2003, §63-31*)

§8-702. Variance Procedures and Conditions.

1. Requests for variances shall be considered by the Borough in accordance with the procedures contained in §8-211 and the following:

A. No variance shall be granted for any construction, development, use, or activity within any floodway area that would cause any increase in the 100-year flood elevation.

B. No variance shall be granted for any construction, development, use, or activity within any FE area that would, together with all other existing and anticipated development, increase the 100-year flood elevation more than 1 foot at any point.

C. No variance shall be granted for any of the other requirements pertaining specifically to development which may endanger human life, §8-405.

D. If granted, a variance shall involve only the least modification necessary to provide relief.

E. In granting any variance, the Borough 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.

F. Whenever a variance is granted, the Borough shall notify the applicant in writing that:

(1) The granting of the variance may result in increased premium rates for flood insurance.

(2) Such variances may increase the risks to life and property.

G. In reviewing any request for a variance, the Borough shall consider, at a minimum, the following:

(1) That there is good and sufficient cause.

(2) That failure to grant the variance would result in exceptional hardship to the applicant, due to circumstances not caused by the applicant.

(3) That the granting of the variance will (a) neither result in an unacceptable or prohibited increase in flood heights, additional threats to public safety, or extraordinary public expense, (b) nor create nuisances, cause fraud on, or victimize the public, or conflict with any other applicable State or local ordinances and regulations.

(4) That a written certification from FEMA or other appropriate Federal

agency has been issued stating that the variance would not cause loss of eligibility for the Flood Insurance Program.

H. A complete record of all variance requests and related actions shall be maintained by the Borough. In addition, a report of all variances granted during the year shall be included in the annual report to the Federal Insurance Administration.

Notwithstanding any of the above, however, all structures shall be designed and constructed so as to have the capability of resisting the 100-year flood.

2. The applicant shall be assessed fees, charges and costs equivalent to those fees, charges and costs as may be from time to time be applicable to an appeal to the Zoning Hearing Board.

3. The request for a variance shall be determined in accordance with the Local Agency Law, 2 Pa.C.S.A. §§551 *et seq.*, 751 *et seq.*

4. Variance hearings shall be advertised in advance in the same manner as applies to hearings before the Zoning Hearing Board.

(*Ord. 368, 4/14/2003, §63-32*)

Part 8**Definitions****§8-801. General.**

Unless specifically defined below, words and phrases used in this Chapter shall be interpreted so as to give this Chapter its most reasonable application.

(Ord. 368, 4/14/2003, §63-33)

§8-802. Definitions.

Accessory use or structure - a use or structure on the same lot with, and of a nature customarily incidental and subordinate to, the principal use or structure.

Basement - any area of the building having its floor below ground level on all sides.

Building - a combination of materials to form a permanent structure having walls and a roof. Included shall be all manufactured homes and trailers to be used for human habitation.

Completely dry space - a space which will remain totally dry during flooding; the structure is designed and constructed to prevent the passage of water and water vapor.

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

Essentially dry space - a space which will remain dry during flooding, except for the passage of some water vapor or minor seepage; the structure is substantially impermeable to the passage of water.

Flood - a temporary inundation of normally dry land areas.

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 designated area of a floodplain required to carry and discharge floodwaters of a given magnitude. For the purposes of this Chapter, the floodway shall be capable of accommodating a flood of the 100-year magnitude.

Historic structure - any structure that is:

- A. 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.

B. 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.

C. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior.

D. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:

(1) By an approved state program as determined by the Secretary of the Interior.

(2) Directly by the Secretary of the Interior in states without approved programs.

Identified floodplain area - the floodplain area specifically identified in this Chapter as being inundated by the 100-year flood.

Land development - any of the following activities:

A. The improvement of one lot or two or more contiguous lots, tracts, or parcels of land for any purpose involving:

(1) A group of two or more residential or nonresidential buildings, whether proposed initially or cumulatively, or a single nonresidential building on a lot or lots regardless of the number of occupants or tenure.

(2) The division or allocation of land or space, whether initially or cumulatively, between or among two or more existing or prospective occupants by means of, or for the purpose of streets, common areas, leaseholds, condominiums, building groups or other features.

B. A subdivision of land.

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 nonelevation 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. The 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 - a parcel of land under single ownership, which has been planned and improved for the placement of two or more manufactured homes for nontransient use.

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 or mechanical or other work affecting public health or general safety.

New construction - structures for which the start of construction commenced on or after the effective date of this Chapter, and includes any subsequent improvements thereto.

One hundred year flood - a flood that, on the average, is likely to occur once every 100 years (i.e., that has 1 percent chance of occurring each year, although the flood may occur in any year).

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.

Recreational vehicle - a vehicle which is (A) built on a single chassis; (B) not more than 400 square feet, measured at the largest horizontal projections; (C) designed to be self-propelled or permanently towable by a light-duty truck; (D) not designed for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

Regulatory flood elevation - the 100-year flood elevation plus a freeboard safety factor of 1½ feet.

Special permit - a special approval which is required for hospitals, nursing homes, jails, and new manufactured home parks and subdivisions and substantial improvements to such existing parks, when such development is located in all, or a designated portion of, a floodplain.

Structure - anything constructed or erected on the ground or attached to the ground including, but not limited to, buildings, sheds, manufactured homes, and other similar items. This term includes any man-made object having an ascertainable stationary location on or in land or water whether or not affixed to land.

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 percent or more of the market value of the structure before the damage occurred.

Substantial improvement - any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the “start of construction” of the improvement.

This term includes structures which have incurred “substantial damage,” regardless of the actual repair work performed. The term does not, however, include

either:

A. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions.

B. Any alteration of a “historic structure,” provided that the alteration will not preclude the structure’s continued designation as a “historic structure.”

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 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 Commonwealth floodplain construction. For coordination purposes, references to the above are made specifically to various sections of the IRC and the IBC. [Ord. 387]

(Ord. 368, 4/14/2003, §63-34; as amended by Ord. 387, 12/14/2009)