



pennsylvania
DEPARTMENT OF COMMUNITY
& ECONOMIC DEVELOPMENT

Suggested Provisions

Meeting the Minimum Requirements of
THE NATIONAL FLOOD INSURANCE PROGRAM

and the

PENNSYLVANIA FLOOD PLAIN
MANAGEMENT ACT (1978-166)
SECTION 60.3 (d)

March 2007

> ready > set > succeed



Commonwealth of Pennsylvania
Edward G. Rendell, Governor
www.state.pa.us

Department of Community
& Economic Development
Dennis Yablonsky, Secretary

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EXPLANATORY NOTE:

This suggested ordinance has been prepared to help municipalities meet the requirements of the National Flood Insurance Program and the Pennsylvania Flood Plain Management Act (Act 166-1978). More specifically, this ordinance contains all the provisions necessary to comply with the requirements of Section 60.3 (d) of the National Flood Insurance Program as well as the requirements of Act 1978-166 and the regulations adopted by the Department of Community and Economic Development pursuant to that Act.

In using these suggested provisions, certain things must be understood and kept in mind:

1. A municipality may take one of two basic approaches in enacting its floodplain management regulations. It can adopt a single purpose ordinance which contains all the necessary provisions, or it can enact whatever provisions may be necessary by amending other existing codes and ordinances such as a zoning ordinance, building code, etc. This suggested ordinance can be used as a guide by municipalities that do not have other codes or ordinances which could be amended, or that simply prefer to enact a single purpose ordinance for whatever reason.
2. These provisions cannot be adopted verbatim. Every municipality making use of these provisions will have to make some choices and modifications, depending upon the kind of flood hazard areas and information contained in the Flood Insurance Study and maps from the Federal government, and their own particular circumstances, objectives, and policies.
3. These provisions are not "model" floodplain management regulations. With few exceptions, they have been prepared only with the intention of meeting the minimum requirements of Section 60.3 (d) of the National Flood Insurance Program and the Pennsylvania Flood Plain Management Act. They do not contain everything necessary or desirable for good floodplain management. For any municipality that may be interested, considerably more could be done concerning the regulation of development in flood prone areas.
4. These provisions are required under PA Act 1978-166 regardless of whether or not a municipality "opts in" or "opts out" of administering the PA Uniform Construction Code (UCC), PA Act 45 of 1999. Article XI of Act 1999-45 stipulates that the provisions of Act 1978-166 are not superseded by the Code. Therefore, it is strongly recommended that at a minimum, a municipality retain its current Flood Plain Management provisions and revise them to include the UCC coordinating references contained herein which refer to specific and appropriate supplemental UCC provisions and International Code References.

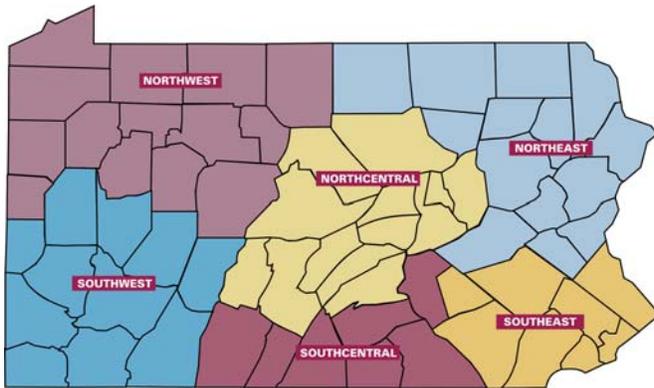
5. Prior to the enactment of any ordinance, a municipality should seek the advice of its solicitor regarding its content and enactment. If the solicitor is not involved in the actual preparation of the ordinance, he or she should, at the very least, be given the opportunity to review and comment upon the proposed ordinance prior to its enactment.

The needs, circumstances, and objectives of municipalities are so diverse that the development of a single ordinance for use by all is literally impossible. While use of so called "model" ordinances, suggested provisions, etc., can be of considerable help to a municipality, they are, nevertheless, of value only up to a certain point. No "ready-made" ordinance exists for any municipality. It is for this reason that we caution municipalities with respect to the use of these provisions. As with any other aid to local government, the value to be derived is dependent upon the intelligence with which it is used.

If there are any questions concerning these suggested provisions, the National Flood Insurance Program, or the Pennsylvania Flood Plain Management Act, the Governor's Center for Local Government Services within the Department of Community and Economic Development should be contacted without hesitation. A list of the Center's Regional offices appears on the next page.

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1/19/2007

AN ORDINANCE REQUIRING ALL PERSONS, PARTNERSHIPS, BUSINESSES, AND CORPORATIONS TO OBTAIN A BUILDING PERMIT FOR ANY CONSTRUCTION OR DEVELOPMENT; PROVIDING FOR THE ISSUANCE OF SUCH BUILDING PERMITS; SETTING FORTH CERTAIN MINIMUM REQUIREMENTS FOR NEW CONSTRUCTION AND DEVELOPMENT WITHIN AREAS OF THE (TOWNSHIP, BOROUGH, ETC.) WHICH ARE SUBJECT TO FLOODING; AND ESTABLISHING PENALTIES FOR ANY PERSONS WHO FAIL, OR REFUSE TO COMPLY WITH, THE REQUIREMENTS OR PROVISIONS OF THIS ORDINANCE.

BE IT ENACTED and ORDAINED by the (Name of Municipality) _____ County, Pennsylvania, and it is hereby enacted and ordained by the authority of the same as follows:

ARTICLE I GENERAL PROVISIONS

Section 1.00 Intent

The intent of this Ordinance 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.

Section 1.01 Applicability

- A. It shall be unlawful for any person, partnership, business or corporation to undertake, or cause to be undertaken, any construction or development anywhere within the (Township, Borough, etc.) unless a Building Permit has been obtained from the Building Permit Officer.
- B. A Building Permit shall not be required for minor repairs to existing buildings or structures.

Section 1.02 Abrogation and Greater Restrictions

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

Section 1.03 Severability

If any section, subsection, paragraph, sentence, clause, or phrase of this Ordinance shall be declared invalid for any reason whatsoever, such a decision shall not affect the remaining portions of the Ordinance, which shall remain in full force and effect, and for this purpose the provisions of this Ordinance are hereby declared to be severable.

Section 1.04 Warning and Disclaimer of Liability

The degree of flood protection sought by the provisions of this Ordinance 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 Ordinance 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.

This Ordinance shall not create liability on the part of the (Township, Borough, etc.) or any officer or employee thereof for any flood damages that result from reliance on this Ordinance or any administrative decision lawfully made thereunder.

ARTICLE II ADMINISTRATION

Section 2.00 Building Permits Required

Building Permits shall be required before any construction or development is undertaken within any area of the (Township, Borough, etc.)

Section 2.01 Issuance of Building Permit

- A. 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.
- B. Prior to the issuance of any zoning 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 (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.

NOTE: Subsection C. below is optional and should be included only when Subsection 601 E. is used.

- C. In the case of existing structures, prior to the issuance of any Development/Building permit, the Development/Building Permit Officer shall review the history of repairs to the subject building, so that any repetitive loss issues can be addressed before the permit is issued.
- D. 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 (Township, Borough, etc.) and until all required permits or approvals have been first obtained from the Department of Environmental Protection Regional Office.

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

Section 2.02 Application Procedures and Requirements

- A. Application for such a Building permit shall be made, in writing, to the Building Permit Officer on forms supplied by the (Township, Borough, etc.). Such application shall contain the following:
 - 1. Name and address of applicant.
 - 2. Name and address of owner of land on which proposed construction is to occur.
 - 3. Name and address of contractor.
 - 4. Site location including address.

5. Listing of other permits required.
 6. Brief description of proposed work and estimated cost, including a breakout of the flood-related cost and the market value of the building before the flood damage occurred.
 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 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; and
 - (c) adequate drainage is provided so as to reduce exposure to flood hazards.
- C. 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:
1. A completed Building Permit Application Form.
 2. A plan of the entire site, clearly and legibly drawn at a scale of one (1) inch being equal to one hundred (100) feet or less, showing the following:
 - a. north arrow, scale, and date;
 - b. topographic contour lines, if available;
 - c. all property and lot lines including dimensions, and the size of the site expressed in acres or square feet;
 - d. the location of all existing and proposed buildings, structures, and other improvements, including the location of any existing or proposed subdivision and land development;
 - e. the location of all existing streets, drives, and other access ways; and
 - f. the location of any existing bodies of water or watercourses, identified floodplain areas, and, if available, information pertaining to the floodway, and the flow of water including direction and velocities.

3. Plans of all proposed buildings, structures and other improvements, drawn at suitable scale showing the following:
 - a. the proposed lowest floor elevation of any proposed building based upon North American Vertical Datum of 1988;
 - b. the elevation of the one hundred (100) year flood;
 - c. if available, information concerning flood depths, pressures, velocities, impact and uplift forces and other factors associated with a one hundred (100) year flood; and
 - d. detailed information concerning any proposed floodproofing measures.
 - e. supplemental information as may be necessary under 34 PA Code, Chapter 401-405 as amended, and Sec.1612.5.1, Section 104.7 and 109.3 of the 2003 IBC and Section R106.1.3 and R104.7 of the 2003 IRC.
4. The following data and documentation:

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| <p><u>NOTE:</u> The following subpart a. may not be needed. It will be required <u>only</u> if the kind of floodplain area described in Section 3.01 c. has been delineated in a Flood Insurance Study.</p> |
|--|

- a. 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 one hundred (100) year flood more than one (1) foot at any point.
- b. 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 one hundred (100) year flood.

Such statement shall include a description of the type and extent of flood proofing measures which have been incorporated into the design of the structure and/or the development.

- c. detailed information needed to determine compliance with Section 4.03 F., Storage, and Section 4.04, Development Which May Endanger Human Life, including:
 - i) the amount, location and purpose of any materials or substances referred to in Sections 4.03 F. and 4.04 which are intended to be used, produced, stored or otherwise maintained on site.
 - ii) 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 Section 4.04 during a one hundred (100) year flood.

- d. the appropriate component of the Department of Environmental Protection's "Planning Module for Land Development."
- e. 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.

Section 2.03 Review by County Conservation District

NOTE: The provisions of Section 2.03, which follow, are entirely optional. Nevertheless, the governing body of a municipality contemplating the use of this Ordinance should seriously consider retaining these provisions. The conservation district staff has the technical expertise which through the review and comment process can be of great value to a municipality in reviewing floodplain development plans, especially where grading and/or filling is proposed. Prior to making a final decision on whether to include this Section, the conservation district office should be contacted for coordination purposes.

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.

Section 2.04 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, municipal engineer, etc.) for review and comment.

Section 2.05 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.

Section 2.06 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.

Section 2.07 Start of Construction

Work on the proposed construction and/or development shall begin within six (6) months and shall be completed within twelve (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.

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.

Section 2.08 Inspection and Revocation

- A. 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.
- B. 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 ordinance.
- C. 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 (Board, Council, etc.) for whatever action it considers necessary.
- E. A record of all such inspections and violations of this ordinance shall be maintained.
- F. The requirements of the 34 PA Code Chapter 401-405 and the IBC (Sections 109.3.3, 1612.5.1, 104.7 and 103.8) and the 2003 IRC (R106.1.3, 109.1.3 and R104.7) or latest revisions thereof pertaining to elevation certificates and record retention shall be considered.

Section 2.09 Fees

NOTE: The following fee schedule is optional. The governing body should review it closely prior to formal adoption to determine if the fees will reasonably cover the costs incurred in the actual administration of the Ordinance.

Applications for a building permit shall be accompanied by a fee, payable to the municipality based upon the estimated cost of the proposed construction as determined by the Building Permit Officer at the following rates:

| <u>Estimated Cost</u> | <u>Fee</u> |
|--|------------|
| \$ 0.00 to \$200.00 | \$0.00 |
| \$ 201.00 to \$1,000.00 | \$5.00 |
| Each additional \$1,000.00 or part thereof beyond the first \$1,000.00 | \$1.00 |

Section 2.10 Enforcement

A. 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 Ordinance, 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 thirty (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 Ordinance.

B. Penalties

Any person who fails to comply with any or all of the requirements or provisions of this Ordinance or who fails or refuses to comply with any notice, order of direction of the Building Permit Officer or any other authorized employee of the municipality shall be guilty of an offense and, upon conviction, shall pay a fine to (Township, Borough, etc.) of not less than Twenty-five Dollars (\$25.00) nor more than Six Hundred Dollars (\$600.00) plus costs of prosecution. In default of such payment, such person shall be imprisoned in county prison for a period not to exceed ten (10) days. Each day during which any violation of this Ordinance 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 Ordinance. The imposition of a fine or penalty for any violation of, or noncompliance with, this Ordinance 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 Ordinance may be declared by the (Board, Council, etc.) to be a public nuisance and abatable as such.

Section 2.11 Appeals

- A. Any person aggrieved by any action or decision of the Building Permit Officer concerning the administration of the provisions of this Ordinance, may appeal to the (Board, Council, etc.). Such appeal must be filed, in writing, within thirty (30) days after the decision, determination or action of the Building Permit Officer.
- B. Upon receipt of such appeal the (Board, Council, etc.) shall set a time and place, within not less than ten (10) nor more than thirty (30) days, 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.
- C. Any person aggrieved by any decision of the (Board, Council, etc.) may seek relief therefrom by appeal to court, as provided by the laws of this Commonwealth including the Pennsylvania Flood Plain Management Act.

ARTICLE III IDENTIFICATION OF FLOODPLAIN AREAS

Section 3.00 Identification

The identified floodplain area shall be any areas of (Name of Municipality), subject to the one hundred (100) year flood, which is identified as Zone A (Area of Special Flood Hazard) in the Flood Insurance Study (FIS) dated _____ and the accompanying maps or the most recent revision thereof as issued by the Federal Emergency Management Agency. Including all digital data developed as part of the Flood Insurance Study.

Section 3.01 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 one hundred (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 one hundred (100) year flood elevations as shown in the flood profiles contained in the Flood Insurance Study.

NOTE: It is possible that the following provisions pertaining to an FE area may not be needed. In some instances a Flood Insurance Study will be prepared which will not include this kind of floodplain area, in which case the following provisions should be deleted, as well as all references to an FE area.

- C. FE (Special Floodplain Area) - the areas identified as Zone AE in the Flood Insurance Study, where one hundred (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 one hundred (100) year flood elevations have been provided. When available, information from other Federal, State, and other acceptable sources shall be used to determine the one hundred (100) year elevation, as well as a floodway area, if possible. When no other information is available, the one hundred (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 municipality may require the applicant to determine the elevation with hydrologic and hydraulic engineering techniques. Hydrologic and hydraulic analyses shall be undertaken only by professional engineers or others of demonstrated qualifications, who shall certify that the technical methods used correctly reflect currently accepted technical concepts. Studies, analyses, computations, etc., shall be submitted in sufficient detail to allow a thorough technical review by the (Township, Borough, etc.).

Section 3.02 Changes in Identification of Area

The identified floodplain area may be revised or modified by the (Board, Council, etc.) 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 Emergency Management Agency (FEMA).

Section 3.03 Boundary Disputes

Should a dispute concerning any identified floodplain boundary arise, an initial determination shall be made by the (Township, Borough, etc.) Planning Commission and any party aggrieved by this decision or determination may appeal to the (Board, Council, etc.). The burden of proof shall be on the appellant.

ARTICLE IV TECHNICAL PROVISIONS

Section 4.00 General

- A. 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 Regional Office.

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.

- B. 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 Ordinance and any other applicable codes, ordinances and regulations.

Section 4.01 Special Requirements for FW, FE and FA Areas

- A. With any FW (Floodway Area), the following provisions apply:
1. Any new construction, development, use, activity, or encroachment that would cause any increase in flood heights shall be prohibited.
 2. No new construction or development shall be allowed, unless a permit is obtained from the Department of Environmental Protection Regional Office.
- B. 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 one hundred (100) year flood more than one (1) foot at any point.
- C. Within any FE (Special Floodplain Area) or FA (General Floodplain Area), the following provisions apply:
1. No new construction or development shall be located within the area measured fifty (50) feet landward from the top-of-bank of any watercourse, unless a permit is obtained from the Department of Environmental Protection Regional Office.

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| <p>NOTE: Subsection C.2. which follows, is an alternative to Subsection C.1. Prohibiting structures within 50 feet of the stream bank is not a specific federal or state floodplain management requirement, although a DEP permit must be obtained before any encroachment can be located within this area as indicated in the above provision. Going a step further and prohibiting construction and development activities within the 50 feet area will allow for the free passage of floodwater, a very important consideration for several obvious reasons. To many people, common sense alone, would suggest that development, generally, should not occur within such a short</p> |
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distance of any watercourse, and many municipalities have, for years, required setbacks of equal or greater distances. The possibility of prohibiting development within such areas has considerable merit and for that reason, the provision is included here for consideration.

2. No new construction or development shall be located within the area measured fifty (50) feet landward from the top-of-bank of any watercourse.
3. Any new construction or development, which would cause any increase in flood heights shall be prohibited within any floodway area.

Section 4.02 Elevation and Floodproofing Requirements

NOTE: The one and one-half (1 ½) foot freeboard contained in Subsections A. and B. below, is an alternative to the basic NFIP elevation requirement. The minimum requirement of the NFIP for residential structures is that they be elevated only to the 100 year flood level while non-residential structures be either elevated or floodproofed to that level. However, the encouragement of a freeboard or margin of safety into all residential and non-residential construction makes good sense. Not only is there a reduction in insurance premium rates when this occurs, but there is also a greater level of protection built into these structures. This is extremely important especially when consideration is given to the fact that the projected 100 year flood level contained in the FIS can be as much as one half (½) foot low and/or floods of greater magnitude can and often do occur. Also development in the floodplain is permitted to cause up to as much as a one (1) foot increase in the 100 year flood level anyway. Therefore, the inclusion of a one and one half (1 ½) foot freeboard requirement into this section and certain portions of Section 4.03 is strongly recommended.

A. 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 2003 IBC (Sec. 1612.4, 1603.1.6 and 3403.1) and in the 2003 IRC (Sec. R323.1.4, R323.2.1, and R323.2.2) and ASCE 24 (Sec. 2.4 and 2.5, Chap. 5) and 34 PA Code (Chapters 401-405 as amended) shall be utilized.

B. Non-residential Structures

1. Within any identified floodplain area, any new construction or substantial improvement of a non-residential 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.
2. Any non-residential structure, or part thereof, having a lowest floor which is not elevated to at least one and one half (1 ½) feet above the one hundred (100) year flood elevation,

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.

3. The design and construction standards and specifications contained in the IBC (Sec. 1603.1.2, 1603.1.6, 1605.2.2, 1606.5, 1612.5.1 and 3403.1. and ASCE 24 (Secs. 2.4 and Chap. 7) and 34 PA Code (Chapters 401-405 as amended) shall be utilized.

C. Space below the lowest floor.

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

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| <p><u>NOTE:</u> For whatever reason, a municipality may not want to allow partially enclosed space below the lowest floor of a structure as provided for in the following subpart. If so, the provision should be rewritten to prohibit such spaces.</p> |
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2. 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 flood waters 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:

- a. a minimum of two openings having a net total area of not less than one (1) square inch for every square foot of enclosed space.
 - b. the bottom of all openings shall be no higher than one (1) foot above grade.
 - 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.
3. Consideration may be given to the requirements of 34 PA Code (Chapters 401-405 as amended) and the 2003 IRC (Secs.R323.2.2 and R323.1.4) and the 2003 IBC (Secs. 1612.4, 1612.5, 1202.3.2 and 1203.3.3).

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| <p><u>NOTE:</u> The following subsection D. is optional. However, it is recommended because the matter of accessory structures and how to handle them arises frequently.</p> |
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D. 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 600 square feet.
3. the structure will have a low damage potential.
4. the structure will be located on the site so as to cause the least obstruction to the flow of flood waters.
5. power lines, wiring, and outlets will be at least one and one-half (1 ½) feet above the 100 year 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 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:
 - a. a minimum of two openings having a net total area of not less than one (1) square inch for every square foot of enclosed space.
 - b. the bottom of all openings shall be no higher than one (1) foot above grade.
 - c. openings may be equipped with screens, louvers, etc. or other coverings or devices provided that they permit the automatic entry and exit of flood waters.

Section 4.03 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 fifteen (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 (1) vertical to two (2) horizontal, feet unless substantiated data, justifying steeper slopes are submitted to, and approved by the Building Permit Officer; and,
5. be used to the extent to which it does not adversely affect adjacent properties. The provisions contained in the 2003 IBC (Sec. 1801.1 and 1803.4) shall be utilized.

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 2003 IBC (Appendix G401.5) shall be utilized.

C. Water and Sanitary Sewer Facilities and Systems

1. All new or replacement water and sanitary sewer facilities and systems shall be located, designed and constructed to minimize or eliminate flood damages and the infiltration of flood waters.
2. Sanitary sewer facilities and systems shall be designed to prevent the discharge of untreated sewage into flood waters.
3. No part of any on-site 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 2003 IBC (Appendix G. Secs. 401.3 and 401.4), the 2003 IRC (Sec. 323.1.6), the ASCE 24-98 (Sec. 8.3), FEMA #348, Protecting Building Utilities From Flood Damages and The International Private Sewage Disposal Code (Chapter 3) 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 (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 Section 4.04, 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 flood water.

H. Anchoring

1. All buildings and structures shall be firmly anchored in accordance with accepted engineering practices to prevent flotation, collapse, or lateral movement.
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 subsection as referred to in 34 PA Code (Chapters 401-405 as amended) and contained in the 2003 IBC (Secs. 1605.2.2, 1605.3.1.2, 1612.4 and Appendix G501.3), the IRC (Secs. R301.1 & R323.1.1) and ASCE 24-98 (Sec. 5.6) shall be utilized.

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 subsection and referenced in the 34 PA Code (Chapters 401-405 as amended) and contained in the 2003 IBC (Secs. 801.1.3, 1403.2, 1403.4, 1403.6 and 1404.2), the 2003 IRC (Secs. R323.1.7 & R501.3) and ASCE 24-98 (Chapter 6).

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 2003 IBC (Secs. 801.1.3, 1403.7 and Appendix G) and the 2003 IRC (Secs. R323.1.7).

K. Electrical Components

1. Electrical distribution panels shall be at least three (3) feet above the one hundred (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 2003 IBC (Sec. 1612.4), the IRC (Sec. R323.1.5), the 2000 IFGC (Secs. R301.5 and R1601.3.8) and ASCE 24 (Chapter 8) shall be utilized.

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 provision and referenced in the UCC and 34 PA Code (Chapters 401-405), as amended and contained in the 2003 IBC (Sec. 1612.4), the 2003 IRC (Secs. R323.1.5) the 2000 IFGC (Secs. R301.5 and R1601.3.8) and ASCE 24 (Chapter 8) shall be utilized

M. Fuel Supply Systems

All gas and oil supply systems shall be designed to prevent the infiltration of flood waters into the system and discharges from the system into flood waters. Additional provisions shall be made for the drainage of these systems in the event that flood water infiltration occurs.

Section 4.03N. Uniform Construction Code Coordination

The Standards and Specifications contained 34 PA Code (Chapters 401-405), as amended and not limited to the following provisions shall apply to the above and other sections and sub-sections of this ordinance, to the extent that they are more restrictive and/or supplement the requirements of this ordinance.

International Building Code (IBC) 2003 or the latest edition thereof:
Secs. 801, 1202, 1403, 1603, 1605, 1612, 3402, and Appendix G.

International Residential Building Code (IRC) 2003 or the latest edition thereof:
Secs. R104, R105, R109, R323, Appendix AE101, Appendix E and Appendix J.

Section 4.04 Development Which May Endanger Human Life

A. In accordance with the Pennsylvania Flood Plain Management Act, and the regulations adopted by the Department of Community and Economic Development as required by the Act, any new or substantially improved structure which:

- will be used for the production or storage of any of the following dangerous materials or substances; or,
- will be used for any activity requiring the maintenance of a supply of more than 550 gallons, or other comparable volume, of any of the following dangerous materials or substances on the premises; or,
- will involve the production, storage, or use of any amount of radioactive substances;

Shall be 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 FW (Floodway Area), any structure of the kind described in Subsection A., above, shall be prohibited.

NOTE: Subsection C., below, is optional, but it can be used only if the decision is made not to use Subsection 4.01 C.2, which generally prohibits all development within fifty (50) feet landward from the top-of-bank of any watercourse within any FE (Special Floodplain Area) or FA (General Floodplain Area).

If a municipality is not going to prohibit development within such areas generally, it may want to consider the possibility of prohibiting the kinds of development covered by the provisions in this section. Such outright prohibitions, however, are not required by either the State or Federal government, although a permit from DEP is required before encroachment occurs within such areas.

To many people, the location of these kinds of development anywhere within a floodplain is unwise, and it is argued that the prohibition of such development within fifth (50) feet of the top-of-bank of a watercourse is the very least that should be done. The possibility of prohibiting development within such areas has considerable merit and for that reason, the provision is included here for consideration.

A second alternative would be to prohibit these kinds of activities and development altogether within an identified floodplain area. Again, such prohibition is not required by either the State or Federal government. However, a municipality may decide to do so for various reasons. If so, please contact the DCED Regional Office for further details and assistance.

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

- D. Where permitted within any floodplain area, any new or substantially improved structure of the kind described in Subsection A., above, shall be:

1. elevated or designed and constructed to remain completely dry up to at least one and one half (1 ½) feet above the one hundred (100) year flood and,
2. designed to prevent pollution from the structure or activity during the course of a one hundred (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.

Section 4.05 Special Requirements for Manufactured Homes

NOTE: Subsection A., below is optional. For years the NFIP specifically prohibited manufactured homes in floodway areas. As of October 1, 1986, the NFIP regulations were changed and the prohibition eliminated. The location of manufactured homes anywhere within a floodplain--and particularly within a floodway--is unwise and should be avoided whenever possible. Thus, municipalities are encouraged to include this subsection.

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

NOTE: Subsection B., below, is optional. For further information on its appropriate use, see the explanation in the note for Subsection 4.04 C.

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

C. Where permitted within any floodplain area, all 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 one and one half (1 ½) feet or more above the elevation of the one hundred (100) year flood.
3. anchored to resist flotation, collapse, or lateral movement.
4. 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 2003 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 Chapter 401-405.

5. Consideration shall be given to the installation requirements of the 2003 IBC (Appendix G, Sec. 501.1-3) and the 2003 IRC (Sec. R323.2, R323.3, R102.7.1, and Appendix AE101, 604 and 605) or the most recent revisions thereto and 34 PA Code Chapter 401-405, as amended where appropriate and/or applicable to units where the manufacturers' standards for anchoring cannot be provided or were not established for the units(s) proposed installation.

ARTICLE V ACTIVITIES REQUIRING SPECIAL PERMITS

NOTE:

To many people, locating the following Special Permit activities and other similar kinds of development within a floodplain is unwise and it is argued that such development should be prohibited or more closely regulated within floodplain areas. Some municipalities may wish to prohibit such development within 50 feet or more of watercourses as explained on pages 12, 13, and 19, if this is not already provided for in Section 4.00. Or, they may want to prohibit one or more of these kinds of development within flood plains entirely. For those municipalities wishing to prohibit the following activities, Sections 5.01, 5.02, and 5.03 must be dropped and Section 5.00 modified to prohibit such activities from locating within any identified floodplain area.

Section 5.00 General

In accordance with the administrative regulations promulgated by the Department of Community and Economic Development to implement the Pennsylvania Flood Plain Management Act, the following activities shall be prohibited within any identified floodplain area unless a Special Permit has been issued by the (Township, Borough, etc.):

- 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.

Section 5.01 Application Requirements for Special Permits

Applicants for Special Permits shall provide five copies of the following items:

- A. A written request including a completed Building Permit Application Form.

- B. A small scale map showing the vicinity in which the proposed site is located.

- C. A plan of the entire site, clearly and legibly drawn at a scale of one (1) inch being equal to one hundred (100) feet or less, showing the following:
 - 1. north arrow, scale and date;

 - 2. topography based upon the North American Vertical Datum of 1929, showing existing and proposed contours at intervals of two (2) feet;

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 streets, drives, other access ways, and parking areas, with information concerning widths, pavement types and construction, and elevations;
5. the location of any existing bodies of water or watercourses, buildings, structures and other public or private facilities, including railroad tracks and facilities, and any other natural and man made features affecting, or affected by, the proposed activity or development;
6. the location of the floodplain boundary line, information and spot elevations concerning the one hundred (100) year flood elevations, and information concerning the flow of water including direction and velocities;
7. the location of all proposed buildings, structures, utilities, and any other improvements; and
8. any other information which the municipality considers necessary for adequate review of the application.

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

1. sufficiently detailed architectural or engineering drawings, including floor plans, sections, and exterior building elevations, as appropriate;
2. for any proposed building, the elevation of the lowest floor (including basement) and, as required, the elevation of any other floor;
3. complete information concerning flood depths, pressures, velocities, impact and uplift forces, and other factors associated with the one hundred (100) year flood;
4. detailed information concerning any proposed floodproofing measures;
5. cross section drawings for all proposed streets, drives, other accessways, and parking areas, showing all rights-of-way and pavement widths;
6. profile drawings for all proposed streets, drives, and vehicular accessways including existing and proposed grades; and
7. plans and profiles of all proposed sanitary and storm sewer systems, water supply systems, and any other utilities and facilities.

E. The following data and documentation:

1. certification from the applicant that the site upon which the activity or development is proposed is an existing separate and single parcel, owned by the applicant or the client he represents;
2. certification from a registered professional engineer, architect, or landscape architect that the proposed construction has been adequately designed to protect against damage from the one hundred (100) year flood;
3. a statement, certified by a registered professional engineer, architect, landscape architect, or other qualified person which contains a complete and accurate description of the nature and extent of pollution that might possibly occur from the development during the course of a one hundred (100) year flood, including a statement concerning the effects such pollution may have on human life;
4. a statement certified by a registered professional engineer, architect, or landscape architect, which contains a complete and accurate description of the effects the proposed development will have on one hundred (100) year flood elevations and flows;
5. a statement, certified by a registered professional engineer, architect, or landscape architect, which contains a complete and accurate description of the kinds and amounts of any loose buoyant materials or debris that may possibly exist or be located on the site below the one hundred (100) year flood elevation and the effects such materials and debris may have on one hundred (100) year flood elevations and flows;
6. the appropriate component of the Department of Environmental Protection's "Planning Module for Land Development;"
7. 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;
8. any other applicable permits such as, but not limited to, a permit for any activity regulated by the Department of Environmental Protection under Section 302 of Act 1978-166; and
9. an evacuation plan which fully explains the manner in which the site will be safely evacuated before or during the course of a one hundred (100) year flood.

Section 5.02 Application Review Procedures

Upon receipt of an application for a Special Permit by the (Township, Borough, etc.) the following procedures shall apply in addition to those of Article II:

- A. Within three (3) working days following receipt of the application, a complete copy of the application and all accompanying documentation shall be forwarded to the County Planning

Commission by registered or certified mail for its review and recommendations. Copies of the application shall also be forwarded to the (Township, Borough, etc.) Planning commission and (Township, Borough, etc.) engineer for review and comment.

- B. If an application is received that is incomplete, the (Township, Borough, etc.) shall notify the applicant in writing, stating in what respect the application is deficient.
- C. If the (Township, Borough, etc.) decides to disapprove an application, it shall notify the applicant, in writing, of the reasons for the disapproval.
- D. If the (Township, Borough, etc.) approves an application, it shall file written notification, together with the application and all pertinent information, with the Department of Community and Economic Development, by registered or certified mail, within five (5) working days after the date of approval.
- E. Before issuing the Special Permit, the (Township, Borough, etc.) shall allow the Department of Community and Economic Development thirty (30) days, after receipt of the notification by the Department, to review the application and decision made by the (Township, Borough, etc.).
- F. If the (Township, Borough, etc.) does not receive any communication from the Department of Community and Economic Development during the thirty (30) day review period, it may issue a Special Permit to the applicant.
- G. If the Department of Community and Economic Development should decide to disapprove an application, it shall notify the (Township, Borough, etc.) and the applicant, in writing, of the reasons for the disapproval, and the (Township, Borough, etc.) shall not issue the Special Permit.

Section 5.03 Special Technical Requirements

- A. In addition to the requirements of Article IV of this Ordinance, the following minimum requirements shall also apply to any proposed development requiring a Special Permit. If there is any conflict between any of the following requirements and those in Article IV of this Ordinance or in any other code, ordinance, or regulation, the more restrictive provision shall apply.
- B. No application for a Special Permit shall be approved unless it can be determined that the structure or activity will be located, constructed and maintained in a manner which will:
 - 1. Fully protect the health and safety of the general public and any occupants of the structure. At a minimum, all new structures shall be designed, located, and constructed so that:
 - a. the structure will survive inundation by waters of the one hundred (100) year flood without any lateral movement or damage to either the structure itself, or to any of its equipment or contents below the one hundred (100) year flood elevation.

- b. the lowest floor (including basement) elevation will be at least one and one half (1 ½) feet above the one hundred (100) year flood elevation.
 - c. the occupants of the structure can remain inside for an indefinite period of time and be safely evacuated at any time during the one hundred (100) year flood.
2. Prevent any significant possibility of pollution, increased flood levels or flows, or debris endangering life and property.

All 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 (Township, Borough, etc.) and the Department of Community and Economic Development.

ARTICLE VI EXISTING STRUCTURES IN IDENTIFIED FLOODPLAIN AREAS

Section 6.00 Existing Structures

The provisions of this Ordinance 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 Section 6.01 shall apply.

Section 6.01 Improvements

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 one hundred (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 one hundred (100) year flood elevation more than one (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 fifty (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 Ordinance.

The above activity shall also address the requirements of the 34 PA Code Chapters 401-405, as amended and the 2003 IBC (Sec. 3402.1 and 1612.4) and the 2003 IRC (Sec. 323.1.4).

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| <p>NOTE: Provisions D. & E., below are <u>optional</u>. The Federal government requires only substantial improvements (one time improvements of 50% or more of the market value of the existing structure) to comply with the Flood Insurance Program requirements. Lesser improvements are thus, exempted. Many argue that there should be no such exemption, simply because it is arbitrary. In addition, it is argued that any improvement can, and should, be designed and built to prevent, or at least minimize the potential for damage from flooding. Finally, it is also pointed out that an improvement can be quite sizable and be subject to considerable damage from flooding, even though it may not be equal to 50% or more of the market value of the existing structure. For these, and other reasons, these provisions are included for consideration. While it does not require full compliance, it does at least provide for some effort to be made to do something to help avoid or minimize damages.</p> |
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- D. Any modification, alteration, reconstruction, or improvement of any kind to an existing structure, to an extent or amount of less than fifty (50) percent of its market value, shall be elevated and/or floodproofed to the greatest extent possible.

- E. Any modification, alteration, reconstruction, or improvement of any kind that meets the definition of “repetitive loss” shall be undertaken only in full compliance with the provisions of this ordinance

- F. The requirements of 34 PA Code Chapter 401-405, as amended and the 2003 IRC (Secs. R102.7.1, R105.3.1 and Appendices E and J) or the latest revision thereof and the 2003 IBC (Secs. 101.3, 3403.1 and Appendix G) or the latest revision thereof shall also be utilized in conjunction with the provisions of this section.

ARTICLE VII VARIANCES

Section 7.00 General

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

Section 7.01 Variance Procedures and Conditions

Requests for variances shall be considered by the (Township, Borough, etc.) in accordance with the procedures contained in Section 2.11 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 one hundred (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 one hundred (100) year flood elevation more than one (1) foot at any point.

NOTE: Subsection 7.01 C., which follows, applies when Special Permit Activities and/or Development Which May Endanger Human Life are permitted to be located within an identified floodplain area. In the event a municipality elects to prohibit one or both of these kinds of development, the provision should be rewritten, or another provision added, to ensure that no variance will be granted which would allow the prohibited activities to be located within any identified floodplain area. Check with the nearest DCED Regional Office for further details.

- C. Except for a possible modification of the one and one half (1 ½) foot freeboard requirement involved, no variance shall be granted for any of the other requirements pertaining specifically to development regulated by Special Permit (Article V) or to Development Which May Endanger Human Life (Section 4.04).
- D. If granted, a variance shall involve only the least modification necessary to provide relief.
- E. In granting any variance, the (Township, Borough, etc.) 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 Ordinance.
- F. Whenever a variance is granted, the (Township, Borough, etc.) 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 (Township, Borough, etc.) 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.
 3. That the granting of the variance will (i) neither result in an unacceptable or prohibited increase in flood heights, additional threats to public safety, or extraordinary public expense, (ii) nor create nuisances, cause fraud on, or victimize the public, or conflict with any other applicable state or local ordinances and regulations.
- H. A complete record of all variance requests and related actions shall be maintained by the (Township, Borough, etc.). In addition, a report of all variances granted during the year shall be included in the annual report to the Federal Emergency Management Agency.

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

ARTICLE VIII DEFINITIONS

Section 8.00 General

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

Section 8.01 Specific Definitions

1. 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.
2. Basement - means any area of the building having its floor below ground level on all sides.
3. 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.
4. 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.
5. 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.
6. 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.
7. Flood - a temporary inundation of normally dry land areas.
8. 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.
9. Floodproofing - means 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.
10. Floodway - the designated area of a floodplain required to carry and discharge flood waters of a given magnitude. For the purposes of this Ordinance, the floodway shall be capable of accommodating a flood of the one hundred (100) year magnitude.

11. Historic structure - any structure that is:
 - (i) 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;
 - (ii) 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;
 - (iii) Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or
 - (iv) 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 or
 - (2) Directly by the Secretary of the Interior in states without approved programs.

12. Identified floodplain area - the floodplain area specifically identified in this Ordinance as being inundated by the one hundred (100) year flood.

13. Land development - Any of the following activities:
 - (1) The improvement of one lot or two or more contiguous lots, tracts, or parcels of land for any purpose involving:
 - (i) 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; or
 - (ii) 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.

 - (2) A subdivision of land.

NOTE: The following definition of "Lowest Floor" should be used only if Partially Enclosed Space Below the Lowest Floor (Section 4.02 C.2.) will be permitted.

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

15. 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.
16. 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 non-transient use.
17. 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.

NOTE: The date to be used in the following definition of "New Construction" should be the effective date of the first floodplain management ordinance/regulations enacted by a municipality for the purpose of complying with the requirements of the National Flood Insurance Program.

18. New construction - structures for which the start of construction commenced on or after _____, and includes any subsequent improvements thereto.
19. One hundred year flood - a flood that, on the average, is likely to occur once every one hundred (100) years (i.e. that has one (1) percent chance of occurring each year, although the flood may occur in any year).
20. 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.
21. Recreational vehicle - a vehicle which is (i) built on a single chassis; (ii) not more than 400 square feet, measured at the largest horizontal projections; (iii) designed to be self-propelled or permanently towable by a light-duty truck; (iv) not designed for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.
22. Regulatory flood elevation - the one hundred (100) year flood elevation plus a freeboard safety factor of one and one-half (1 ½) feet.

NOTE: Definition 23., below is optional and should be included only when the “repetitive loss” provision is used.

23. Repetitive loss – flood related damages sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on average, equals or exceeds 25 percent of the market value of the structure before the damages occurred.
24. 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.
25. 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.
26. 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 ten acres, not involving any new street or easement of access or any residential dwelling, shall be exempted.
27. Substantial additions to manufactured home parks – Any repair, reconstruction, or improvement of an existing manufactured home park or manufactured home subdivision, where such repair, reconstruction, or improvement of the streets, utilities, and pads will equal or exceed 50% of the value of the streets, utilities, and pads before the repair, reconstruction, or improvement is started.
28. 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 fifty (50) percent or more of the market value of the structure before the damage occurred.
29. Substantial improvement - Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds fifty (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 (*or “repetitive loss” when a repetitive loss provision is used*) regardless of the actual repair work performed. The term does not, however include either:
 - (1) 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, or;
 - (2) Any alteration of a “historic structure,” provided that the alteration will not preclude the structure's continued designation as a "historic structure.”

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

We have enclosed a copy of our “Suggested Provisions” for your review. References to the International Building & Residential Codes are made throughout the publication. We encourage the inclusion of as many of these references as possible.