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## Part 1

### General Purpose

Section 101. Intent. The intent of this Chapter is to:

- (a) Promote the general health, welfare and safety of the Township of Tilden;
- (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 Township of Tilden, its governmental units and its residents by preventing excessive development in areas subject to flooding;
- (e) Comply with all federal and state flood plain management requirements.

(Ordinance No. 119, December 2, 1997, Section 1.00)

Section 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 within the Township unless an approved building permit has been obtained from the Township Zoning Officer. (Ordinance No. 119, December 2, 1997, Section 1.01)

Section 103. Abrogation and Greater Restrictions. This Chapter supersedes any other conflicting provisions which may be in effect in the identified flood plain areas. However, any other ordinance provisions shall remain in full force and effect to the extent that those provisions are more restrictive than this Chapter. If there is any conflict between any of the provisions of this Chapter, the more restrictive shall apply. (Ordinance No. 119, December 2, 1997, Section 1.02)

Section 104. Severability. If any section, subsection, paragraph, sentence, clause or phrase of this Chapter shall be declared invalid for any reason whatsoever, such invalidity shall not affect the remaining portions of this Chapter, which shall remain in full force and effect, and for this purpose the provisions of this Chapter are hereby declared to be severable. (Ordinance No. 119, December 2, 1997, Section 1.03)

Section 105. Municipal Liability. The degree of flood protection sought by the provisions of this Chapter is considered reasonable for regulatory purposes in the identified flood plain areas 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 flood plain area, or that land uses permitted within such areas, will be free from flooding or flood damages.

This Chapter shall not create liability on the part of the Township or any officer or employee thereof or the Township Solicitor or Engineer for any flood damages that result from reliance on this Chapter or any administrative decision lawfully made thereunder. (Ordinance No. 119, December 2, 1997, Section 1.05)

## Part 2

### Administration

Section 201. Building Permits Required. A building permit shall be required before any proposed construction or development is undertaken within any area of the Township. (Ordinance No. 119, December 2, 1997, Section 2.00)

Section 202. Issuance of Building Permit.

(a) The Township Zoning 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, ordinances, statutes, and regulations.

(b) Prior to the issuance of any building permit, the Township Zoning Officer shall review the application for permit to determine if all other necessary permits required by State and Federal laws have been obtained, including but not limited to the Pennsylvania Sewage Facilities Act (Act 1966-537, as amended); the Pennsylvania Dam Safety and Encroachments Act (Act 1978-325, as amended); the Pennsylvania Clean Streams Act (Act 1937-394, as amended); and the U.S. Clean Water Act, Section 404, 33 U.S.C. 1344. No permit shall be issued until this determination has been made.

(c) 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, and until all required permits or approvals have been first obtained from the Department of Environmental Protection, Bureau of Waterways Engineering.

In addition, the Federal Insurance Administrator and the Pennsylvania Department of Community and Economic Development, Strategic Planning and Operations Office, shall be notified by the Township prior to any alteration or relocation of any watercourse.

(Ordinance No. 119, December 2, 1997, Section 2.01)

Section 203. Application Procedures and Requirements.

(a) Application for a building permit shall be made, in writing, to the Township Zoning Officer on forms supplied by the Township. Such application shall contain at least 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.
- (5) Listing of other permits required.
- (6) Brief description of proposed work and estimated cost.
- (7) A plan of the site showing the exact size and location of the proposed construction as well as any existing buildings or structures.
- (8) Proposed lowest floor or flood proofing elevations in relation to mean sea level.

(b) If any proposed construction or development is located entirely or partially within any identified flood plain area, applicants for building permits shall provide all of the necessary information in sufficient detail and clarity to enable the Township Zoning Officer to determine that:

- (1) all such proposals are consistent with the need to minimize flood damage and conform with the requirements of this and all other applicable codes and ordinances;
- (2) all utilities and facilities, such as sewer, gas, electrical and water systems, are located and constructed to minimize or eliminate flood damage; and
- (3) adequate drainage is provided so as to reduce exposure to flood hazards.

Applicants shall file the following minimum information plus any other pertinent information as may be required by the Township Zoning Officer to make the above determination:

- (i) A completed building permit application form.

(ii) A plan of the entire site, clearly and legibly drawn at a scale of one inch (1") being equal to one hundred feet (100') or less, showing the following:

- a) north arrow, scale, and date;
- b) topographic contour lines;
- 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 flood plain areas, and information pertaining to the floodway, and the flow of water, including direction and velocities.

(iii) Plans of all proposed buildings, structures and other improvements, drawn at suitable scale, showing the following:

- a) the proposed lowest floor elevation of each proposed building based upon the National Geodetic Vertical Datum of 1929;
- b) the elevation of the one hundred (100) year flood;
- c) 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 flood proofing measures.

(iv) The following data and documentation:

a) A statement, certified by a professional engineer or architect registered in the Commonwealth of Pennsylvania, 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.

b) Detailed information needed to determine compliance with Subsection 404(f), Storage, and Section 405, Development Which May Endanger Human Life, including:

1) The amount, location and purpose of any materials or substances referred to in Subsection 404(f) and Section 405 which are intended to be used, produced, stored or otherwise maintained on site.

2) A description of the safeguards incorporated into the design of the proposed structure or development to prevent leaks or spills of the dangerous materials or substances listed in Section 405 during a one hundred (100) year flood.

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

d) 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.

(Ordinance No. 119, December 2, 1997, Section 2.02)

Section 204. Other Permit Issuance Requirements. Prior to any proposed alteration or relocation of any stream or any watercourse, etc. within the Township, a permit shall be obtained from the Department of Environmental Protection, Bureau of Waterways Engineering, as specified in the Water Obstruction Act of 1913, as amended. Further,



notification of the proposal shall be given to all affected adjacent municipalities. Copies of such notifications shall be forwarded to both the Federal Insurance Administration and the Pennsylvania Department of Community and Economic Development, Strategic Planning and Operations Office.

Under no circumstances shall any use, activity and/or development adversely affect the capacity of the channels or floodways of any watercourse, drainage ditch or any other drainage facility or system. (Ordinance No. 119, December 2, 1997, Section 2.03)

Section 205. Review by County Conservation District. A copy of all applications and plans for any proposed construction or development in any identified flood plain area to be considered for approval shall be submitted by the Township Zoning Officer to the Berks County Conservation District for review and comment prior to the issuance of a building permit. The recommendations of the Berks County Conservation District shall be considered by the Township Zoning Officer for possible incorporation into the proposed plan. (Ordinance No. 119, December 2, 1997, Section 2.04)

Section 206. Review of Application by Others. A copy of all plans and applications for any proposed construction or development in any identified flood plain area to be considered for approval may be submitted by the Township Zoning Officer to any other appropriate agencies and/or individuals (e.g., planning commission, municipal engineer, etc.) for review and comment. (Ordinance No. 119, December 2, 1997, Section 2.05)

Section 207. Changes. After the issuance of a building permit by the Township Zoning 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 approval of the Township Zoning Officer. Requests for any such approval shall be in writing, and shall be submitted by the applicant to the Township Zoning Officer for consideration. (Ordinance No. 119, December 2, 1997, Section 2.06)

Section 208. Placards. In addition to the building permit, the Township Zoning 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 shall be signed by the Township Zoning Officer. (Ordinance No. 119, December 2, 1997, Section 2.07)

Section 209. Start of Construction. After issuance of a building permit under this Chapter, 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 and the permit shall expire unless a time extension is granted, in writing, by the Township Zoning 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 Township Zoning Officer to approve such a request. (Ordinance No. 119, December 2, 1997, Section 2.08)

Section 210. Inspection and Revocation.

(a) During the construction period, the Township Zoning 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 laws and Township 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 Township Zoning Officer shall have the authority to enter any building, structure, premises or development in the identified flood plain area, upon presentation of proper credentials, at any reasonable hour to enforce the provisions of this Chapter.

(c) In the event the Township Zoning 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 Township Zoning Officer shall revoke the building permit and report such fact to Board of Supervisors of the Township, which shall take whatever action necessary to enforce the terms of this Chapter.

(d) A record of all such inspections and violations of this Chapter shall be maintained by the Township Zoning Officer.

(Ordinance No. 119, December 2, 1997, Section 2.09)

Section 211. Fees. Applications for a building permit shall be accompanied by a fee, as set forth in the existing Zoning Ordinance of the Township of Tilden, as amended. (Ordinance No. 119, December 2, 1997, Section 2.10)

Section 212. Enforcement.

(a) Notices. Whenever the Township Zoning Officer or other authorized municipal representative determines that there are reasonable grounds to believe that there has been a violation of any provision of this Chapter, or of any regulations

adopted pursuant thereto, such authority shall give notice of such alleged violation as hereinafter provided. Such notice shall:

- (1) be in writing;
- (2) include a statement of the reasons for its issuance;
- (3) allow a reasonable time not to exceed thirty (30) days for the performance of any act it requires;
- (4) be served upon the property owner or developer or his agent, in person or by first-class United States mail, at the address given for the property owner, developer or agent to the Township on the application; and
- (5) contain an outline of remedial action which, if taken, will effect compliance with the provisions of this Chapter, or any part thereof, and with the regulations adopted pursuant thereto. Upon receipt of the aforesaid notice, all work on any buildings or developments shall immediately cease.

(b) Penalties. Any person who fails to comply with any or all of the requirements or provisions of this Chapter or who fails or refuses to comply with any notice, order of direction of the Township Zoning Officer or any other authorized employee of the Township shall be guilty of an offense and, upon conviction, shall pay a fine to the Township 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 Chapter 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 period of 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 Township to be a public nuisance and abatable as such.

(Ordinance No. 119, December 2, 1997, Section 2.11)

Section 213. Appeals.

(a) Any person aggrieved by an action or decision of the Township Zoning Officer concerning the administration of the provisions of this Chapter may appeal to the Board of Supervisors of the Township. Such appeal must be filed with the Township, in writing, within thirty (30) days after the decision or action of the Township Zoning Officer.

(b) Upon receipt of such appeal, the Board of Supervisors of the Township shall set a time and place, within not less than ten (10) nor more than thirty (30) days, for the purpose of hearing the appeal. Notice of the time and place at which the appeal will be considered shall be given to all parties, at which time they may appear and be heard.

(c) Any person aggrieved by any decision of the Board of Supervisors of the Township may seek relief therefrom by appeal to court, as provided by the laws of this Commonwealth, including the Pennsylvania Flood Plain Management Act.

(Ordinance No. 119, December 2, 1997, Section 2.12)

### Part 3

#### Identification of Flood Plain Areas

Section 301. Identification. For the purposes of this Chapter, the areas considered to be identified flood plain areas within the Township shall be those areas of the Township identified as being subject to the one hundred (100) year flood in the Flood Insurance Study and Flood Insurance Rate Map dated December 5, 1997, prepared for the Township by the Federal Emergency Management Agency (FEMA), or the most recent revision thereof.

A map showing all areas considered to be subject to the one hundred (100) year flood is available for inspection at the Township offices. (Ordinance No. 119, December 2, 1997, Section 3.00)

Section 302. Description of Flood Plain Areas. For the purposes of this Chapter, the identified flood plain 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.

(b) FF (Flood-Fringe Area). The remaining portions of the one hundred (100) year flood plain 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.

(c) FE (Special Flood Plain 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 Flood Plain Area). The areas identified as Zone A in the Flood Insurance Study for which no one hundred (100) year flood elevations have been provided. Where 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 flood plain area which is nearest the construction site in question.

In lieu of the above, the Township 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. (Ordinance No. 119, December 2, 1997, Section 3.01)

Section 303. Changes in Identification of Area. The identified flood plain area may be revised or modified by the Board of Supervisors of the Township 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). (Ordinance No. 119, December 2, 1997, Section 3.02)

Section 304. Boundary Disputes. Should a dispute concerning any identified flood plain area boundary arise, an initial determination shall be made by the Township Planning Commission and any party aggrieved by this decision may appeal to Board of Supervisors of the Township. The burden of proof shall be on the appellant. (Ordinance No. 119, December 2, 1997, Section 3.03)

## Part 4

### Technical Provisions

#### Section 401. 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 Township, and until all required permits or approvals have been first obtained from the Pennsylvania Department of Environmental Protection, Bureau of Waterways Engineering.

In addition, the Federal Insurance Administrator and Pennsylvania Department of Community and Economic Development, Strategic Planning and Operations Office, shall be notified by the Township prior to any alteration or relocation of any watercourse.

(b) Any new construction, development, uses or activities allowed within any identified flood plain area shall be undertaken in strict compliance with the provisions contained in this Chapter and any other applicable codes, ordinances and regulations.

(Ordinance No. 119, December 2, 1997, Section 4.00)

#### Section 402. Special Requirements for FW, FE and FA Areas.

(a) Within any FW (Floodway Area), the following provisions apply:

(1) Any new construction, development, use, activity or encroachment that would cause any increase in one hundred (100) year 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, Bureau of Waterways Engineering.

(b) Within any FE (Special Flood plain 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 foot (1') at any point.

(c) Within any FE (Special Flood plain Area) or FA (General Flood plain Area), the following provisions apply:

(1) No new construction or development shall be located within the area measured fifty feet (50') landward from the top of bank of any watercourse unless a permit is obtained from the Department of Environmental Protection, Bureau of Waterways Engineering.

(2) Any new construction, development, use, activity or encroachment which would cause any increase in flood heights shall be prohibited within any floodway area.

(Ordinance No. 119, December 2, 1997, Section 4.01)

Section 403. Elevation and Flood proofing Requirements.

(a) Residential Structures. Within any Identified Flood plain Area, the lowest floor (including basement) of any new residential structure, or any substantial improvement to an existing residential structure, shall be at least one and one-half feet (1-1/2') above the one hundred (100) year flood elevation.

(b) Non-residential Structures.

(1) Within any identified flood plain area, the lowest floor (including basement) of any new construction of or any substantial improvement to an existing non-residential structure shall be at least one and one-half feet (1-1/2') above the one hundred (100) year 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 feet (1-1/2') above the one hundred (100) year flood elevation shall be floodproofed in a completely or essentially dry manner in accordance with the W1 or W2 space classification standards contained in the publication entitled "Flood-Proofing Regulations" published by the U.S. Army Corps of Engineers (June 1972), or with some other equivalent standard. All plans and specifications for such flood proofing 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) Space Below the Lowest Floor.

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

(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 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:

(i) A minimum of two (2) openings having a net total area of not less than one (1) square inch for every square foot of enclosed space.

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

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

(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 structures 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 six hundred (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 floodwaters.

(5) Power lines, wiring and outlets will be at least one and one-half feet (1-1/2') above the one hundred (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 exist of floodwaters 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:

(i) A minimum of two (2) openings having a net total area of not less than one (1) square inch for every square foot of enclosed space.

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

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

(Ordinance No. 119, December 2, 1997, Section 4.02)

Section 404. Design and Construction Standards. The following minimum standards shall apply for all construction and development proposed to be undertaken within any identified flood plain area:

(a) Fill. If fill is used, it shall:

(1) Extend laterally at least fifteen feet (15') 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 Township Zoning Officer.

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

(b) Drainage Facilities. Storm drainage facilities shall be designed to convey the flow of 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.

(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 flood plain 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.

(d) Other Utilities. All other utilities such as gas lines, electrical and telephone systems shall be located, elevated (where possible) and constructed to minimize the chance of impairment during a flood.

(e) Streets. The finished elevation of all new streets shall be no more than one foot (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 405, entitled "Development Which May Endanger Human Life", shall be stored at or above the Regulatory Flood Elevation and/or floodproofed to the maximum extent possible.

(g) Placement of Buildings and Structures. All buildings and structures shall be designed, located and constructed so as to offer the minimum obstruction to the flow of water and shall be designed to have minimum effect upon the flow and height of flood waters.

(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 at or below the Regulatory Flood Elevation shall be firmly anchored or affixed to prevent flotation.

(i) Floors, Walls and Ceilings.

(1) Wood flooring used at or below the Regulatory Flood Elevation shall be installed to accommodate a lateral expansion of the flooring, perpendicular to the flooring grain without causing structural damage to the building.

(2) Plywood used at or below the Regulatory Flood Elevation shall be of a "marine" or "water resistant" variety.

(3) Walls and ceilings at or below the regulatory Flood Elevation shall be designed and constructed of materials that are water resistant and will withstand inundation.

(4) Windows, doors and other components at or below the Regulatory Flood Elevation shall be made of metal or other water resistant material.

(j) Paints and Adhesives.

(1) Paints or other finishes used at or below the Regulatory Flood Elevation shall be of "marine" or water-resistant quality.

(2) Adhesives used at or below the Regulatory Flood Elevation shall be of a "marine" or water-resistant variety.

(3) All wooden components (doors, trim, cabinets, etc.) shall be finished with a "marine" or water-resistant paint or other finishing material.

(k) Electrical Systems and Components.

(1) Electrical distribution panels shall be at least three feet (3') above the level of the one hundred (100) year flood elevation.

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

(l) Equipment. Water heaters, furnaces, air conditioning and ventilating units, and other mechanical or utility equipment or apparatus shall not be located below the Regulatory Flood Elevation.

(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.

(Ordinance No. 119, December 2, 1997, Section 4.03)

Section 405. Development Which May Endanger Human Life.

(a) In accordance with the Pennsylvania Flood Plain Management Act, and the regulations adopted by the Pennsylvania Department of Community and Economic Development, Strategic Planning and Operations Office. Affairs 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 five hundred fifty (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.

(c) Where permitted within any identified flood plain 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 feet (1-1/2') 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 flood proofing 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.

(Ordinance No. 119, December 2, 1997, Section 4.04)

Section 406. Special Requirements for Manufactured Homes.

(a) Where permitted within any identified flood plain 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 feet (1-1/2') or more above the elevation of the one hundred (100) year flood.

(3) Anchored to resist flotation, collapse, or lateral movement.

(Ordinance No. 119, December 2, 1997, Section 4.05)

## Part 5

### Activities Requiring Special Permits

Section 501. General. In accordance with the administrative regulations promulgated by the Pennsylvania Department of Community and Economic Development to implement the Pennsylvania Flood Plain Management Act, (Act 1978-166), the following activities shall be prohibited within any identified flood plain area unless a Special Permit has been issued by the Township:

(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 (public or private);
- (2) nursing homes (public or private);
- (3) jails or prisons;

(b) The commencement of, or any construction of, a new manufactured home park or manufactured home subdivision.

(Ordinance No. 119, December 2, 1997, Section 5.00)

Section 502. Application Requirements for Special Permits. Applicants for Special Permits shall provide five (5) 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 inch (1") being equal to one hundred feet (100') or less, showing the following:

- (1) north arrow, scale and date;
- (2) topography based upon the National Geodetic Vertical Datum of 1929, showing existing and proposed contours at intervals of two feet (2');



(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 flood plain 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 Township 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 flood proofing measures;

(5) cross section drawings for all proposed streets, drives, other access ways and parking areas, showing all rights-of-way and pavement widths;

(6) profile drawings for all proposed streets, drives and vehicular access ways, 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 the applicant represents;

(2) certification by 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 requirement 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.

(Ordinance No. 119, December 2, 1997, Section 5.01)

Section 503. Application Review Procedures. Upon receipt of an application for a Special Permit by the Township, the following procedures shall apply, in addition to those of Part 2:

(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 Planning Commission and Township Engineer for review and comment.

(b) If an application is received that is incomplete, the Township shall notify the applicant in writing, stating in what respect the application is deficient.

(c) If the Township decides to disapprove an application, it shall notify the applicant, in writing, of the reasons for the disapproval.

(d) If the Township approves an application, it shall file written notification, together with the application and all pertinent information, with the Pennsylvania 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 shall allow the Pennsylvania 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.

(f) If the Township does not receive any communication from the Pennsylvania 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 Pennsylvania Department of Community and Economic Development should decide to disapprove an application, it shall notify the Township and the applicant, in writing, of the reasons for the disapproval, and the Township shall not issue the Special Permit.

(Ordinance No. 119, December 2, 1997, Section 5.02)

Section 504. Special Technical Requirements.

(a) In addition to the requirements of Part 4 of this Chapter, 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 Part 4 of this Chapter 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:

(i) 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.

(ii) the lowest floor (including basement) elevation will be at least one and one-half feet (1-1/2') above the one hundred (100) year flood elevation.

(iii) 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 registered professional engineers or others of demonstrated qualifications, who shall certify that the technical methods used correctly reflect currently accepted technical

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concepts. Studies, analyses, computations, etc. shall be submitted in sufficient detail to allow a thorough technical review by the Township and the Pennsylvania Department of Community and Economic Development.

(Ordinance No. 119, December 2, 1997, Section 5.03)

## Part 6

### Existing Structures In Identified Flood Plain Areas

Section 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 Section 602 shall apply. (Ordinance No. 119, December 2, 1997, Section 6.00)

Section 602. Improvements. The following provisions shall apply whenever any improvement is made to an existing structure located within any identified flood plain 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 foot (1') at any point.

(c) Any modification, alteration, reconstruction or improvement of any kind to an existing structure, to an extent or amount of fifty percent (50%) or more of its market value, shall constitute a substantial improvement and shall be undertaken only in full compliance with the provisions of this Chapter.

(d) Any modification, alteration, reconstruction or improvement of any kind to an existing structure, to an extent or amount of less than fifty percent (50%) of its market value, shall be elevated and/or floodproofed to the greatest extent possible.

(Ordinance No. 119, December 2, 1997, Section 6.01)

## Part 7

### Variances

Section 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 Township may, upon request, grant relief from the strict application of the requirements.(Ordinance No. 119, December 2, 1997, Section 7.00)

Section 702. Variance Procedures and Conditions. Requests for variances shall be considered by the Township in accordance with the procedures contained in Section 212 and the following:

(a) No variance shall be granted for any construction, development, use or activity within any floodway area that would cause an 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 by more than one foot (1') at any point.

(c) Except for a possible modification of the one and one-half feet (1-1/2') freeboard requirement involved, no variance shall be granted for any of the other requirements pertaining specifically to development regulated by Special Permit (Part 5) or to Development Which May Endanger Life (Section 405).

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

(e) In granting any variance, the Township 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 Township 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 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. 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 one hundred (100) year flood.

(Ordinance No. 119, December 2, 1997, Section 7.01)



## Part 8

### Definitions

Section 801. General. Unless specifically defined in Section 802 below, words and phrases used in this Chapter shall be interpreted so as to give this Chapter its most reasonable application and effect. (Ordinance No. 119, December 2, 1997, Section 8.00)

Section 802. Specific Definitions.

(a) **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.

(b) **Basement.** Any area of the building having its floor below ground level on all sides.

(c) **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.

(d) **Completely Dry Space.** A space which will remain totally dry during flooding; a structure designed and constructed to prevent the passage of water and water vapor.

(e) **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.

(f) **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.

(g) **Flood.** A temporary inundation of normally dry land areas.

(h) **Flood Plain 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.

(i) **Flood Proofing.** 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.

(j) **Floodway.** The designated area of a flood plain required to carry and discharge flood waters of a given magnitude. For the purposes of this Chapter, the floodway shall be capable of accommodating a flood of the one hundred (100) year magnitude.

(k) **Historic Structure.** Any structure that is:

(1) Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

(2) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

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

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

(l) **Identified Flood Plain Area.** The flood plain area specifically identified in this Chapter as being inundated by the one hundred (100) year flood.

(m) **Land Development.** Any of the following activities:

(1) The improvement of one (1) lot or two (2) or more contiguous lots, tracts or parcels of land for any purpose involving: (i) a group of two (2) 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 (2) 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.

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

(o) Manufactured Home. A transportable, single-family dwelling intended for permanent occupancy, office or place of assembly, contained in one (1) or more sections, built on a permanent chassis, which arrives at a site completed and ready for occupancy except for minor and incidental unpacking and assembly operations, and constructed so that it may be used with or without a permanent foundation. The term includes park trailers, travel trailers, recreational and other similar vehicles which are placed on a site for more than one hundred eighty (180) consecutive days.

(p) Manufactured Home Park. A parcel of land under single ownership which has been planned and improved for the placement thereon of two (2) or more manufactured homes for non-transient use.

(q) 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.

(r) New Construction. Structures for which the start of construction commenced on or after July 16, 1980, and includes any subsequent improvements thereto.

(s) 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 percent (1%) chance of occurring each year, although the flood may occur in any year).

(t) 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.

(u) Recreational Vehicle. A vehicle which is (1) built on a single chassis; (2) not more than four hundred (400) square feet, measured at the largest horizontal projections; (3) designed to be self-propelled or permanently towable by a light-duty truck; (4) not designed for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel or seasonal use.

(v) Regulatory Flood Elevation. The one hundred (100) year flood elevation plus a freeboard safety factor of one and one-half feet (1-1/2').

(w) 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 flood plain.

(x) 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.

(y) Subdivision. The division or redivision of a lot, tract or parcel of land by any means into two (2) or more lots, tracts, parcels or other divisions of land including changes in exiting 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 (10) acres, not involving any new street or easement of access or any residential dwelling, shall be exempted.

(z) 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 percent (50%) or more of the market value of the structure before the damage occurred.

(aa) Substantial Improvement. Any reconstruction, rehabilitation, addition or other improvement of a structure, the cost of which equals or exceeds fifty percent (50%) of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred "substantial damage," 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".

(bb) Township. The Township of Tilden, Berks County, Pennsylvania.

(cc) Township Zoning Officer. The Zoning Officer of the Township of Tilden, Berks County, Pennsylvania.

(Ordinance No. 119, December 2, 1997, Section 8.01)

