

TOWNSHIP OF MIDDLESEX
CUMBERLAND COUNTY, PENNSYLVANIA

ORDINANCE NO. 3 –2009

AN ORDINANCE OF THE TOWNSHIP OF MIDDLESEX, CUMBERLAND
COUNTY, PENNSYLVANIA, AMENDING ARTICLE III AND ARTICLE
XIII, FP-FLOODPLAIN CONSERVATION DISTRICTS OF THE MIDDLESEX
TOWNSHIP ZONING ORDINANCE FOR PURPOSES OF COMPLYING WITH
THE NATIONAL FLOOD INSURANCE PROGRAM AND THE PENNSYLVANIA
FLOOD PLAIN MANAGEMENT ACT

BE IT ENACTED AND ORDAINED, and it is hereby enacted and ordained by the Board of Township Supervisors in and for the Township of Middlesex, Cumberland County, Pennsylvania, as follows:

SECTION 1: Ordinance No. 3-89, as amended, known as the Middlesex Township Zoning Ordinance, Article XIII, FP – Floodplain Conservation Districts, is hereby amended in part as follows:

A. Section 13.01 – General Provisions, is hereby amended to include the following additional Paragraphs F and G.

F. Definitions. The words and phrases utilized in this Article XIII shall have those meanings set forth below. In the event a contrary definition for such word or phrase appears in Article II of this Ordinance, the definitions below shall control and be applicable to the provisions contained in Article XIII. To the extent not defined below, words and phrases utilized in Article XIII shall have those meanings ascribed to them as noted in Article II and elsewhere in this Zoning Ordinance.

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

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

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

Development – any manmade 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 or mobile homes; streets, and other paving; utilities; filing, grading and excavation; mining; dredging; drilling operations; storage of equipment or materials; and the subdivision of land.

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.

Floodway – the designated area of a floodplain required to carry and discharge floodwaters 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.

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 in 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;

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

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 construction is in violation of the applicable non-elevation design requirements of this Ordinance.

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 site for more than 180 consecutive days.

New construction - structures for which the start of construction commenced on or after June 9, 1981, and includes any subsequent improvements thereto.

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 a temporary living quarters for recreational, camping, travel, or seasonal use.

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

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

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.

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.

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 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.

Uniform Construction Code (UCC) – The statewide building code adopted by the Pennsylvania General Assembly in 1999 applicable to new construction in all municipalities here 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. Any reference to the 2003 IBC or the 2003 IRC in this Ordinance shall be considered a reference to the latest version or any successor and/or updated year (usually triennial) version of those same codes.

G. Successor or Amended Codes, Publications, Laws and Governmental Departments. Any reference in Article XIII to any code, publication, regulations, law or governmental department or entity shall include and refer to and be a reference to any amended, successor, supplemented, updated or redesignated code, publication, law, regulation and/or governmental department or entity as if this Ordinance and Article had been amended to make specific reference thereto.

B. Section 13.02 – Area Provisions, is hereby amended in its entirety to provide as follows:

SECTION 13.02 – AREA PROVISIONS

A. Identification. The FP – Floodplain Conservation District shall consist of any and all areas of Middlesex Township 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 March 16, 2009 and the accompanying pages or the most recent revisions thereof as issued by the Federal Emergency Management Agency, including all digital data developed as part of the Flood Insurance Study.

B. Description of Floodplain Areas. The area of the FP – Floodplain Conservation District shall be co-extensive with the identified floodplain area and shall consist of the following specific areas:

1. FW (Floodway Area) – the area 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.
2. 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.

3. FA (General Floodplain Area) – the areas identified as Zone A in the FIS for which no one hundred (100) year flood elevation 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 flooding 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 and all other relevant information shall be submitted in sufficient detail to allow a thorough technical review by the Township.

C. Changes in Identification of Areas. The identified floodplain area may be revised or modified by 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 Emergency Management Agency (FEMA).

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

E. Uses in the Floodplain Area.

1. Floodway Area (FW). In the Floodway Area, no development shall be permitted except where the effect of such development on flood heights is fully offset by accompanying improvements which have been approved by all appropriate local, state and federal authorities as provided in this Ordinance.

- a. Permitted Uses.

In the Floodway Area the following uses and activities are permitted provided that they are in compliance with the provisions of the underlying zoning district and are not prohibited by any other ordinance and provided that they do not require structures, fill or storage of materials and equipment:

- (1) Agricultural uses such as general farming, pasture, grazing, outdoor plant nurseries, horticulture, truck farming, forestry, sod farming and wild crop harvesting.
- (2) Public and private recreational uses and activities such as parks, day camps, picnic grounds, golf courses, boat launching and swimming areas, hiking and horseback riding trails, wildlife and nature preserves, game farms, fish hatcheries, trap and skeet game ranges, and hunting and fishing areas.

- (3) Accessory residential uses, such as yard areas, gardens, play areas, and porous paving areas.
- (4) Accessory industrial and commercial uses such as yard areas, porous paving and loading areas and airport landing strips.

b. Uses Permitted by Special Exception.

The following uses and activities may be permitted by Special Exception as allowed by the Zoning Hearing Board provided that they are in compliance with the provisions of the underlying zoning district and are not prohibited by any other provisions of the Middlesex Township Zoning Ordinance:

- (1) Structures, except mobile homes, accessory to the uses and activities of Section 13.02.E.1.a, above.
- (2) Utilities and public facilities and improvements such as railroads, streets, bridges, transmission lines, pipe lines, water and sewage treatment plants and other similar or related uses.
- (3) Water-related uses and activities such as marinas, docks, wharves, piers, etc.
- (4) Extraction of sand, gravel and other materials.
- (5) Temporary uses such as circuses, carnivals, and similar activities.
- (6) Storage of materials and equipment provided that they are not buoyant, flammable or explosive, and are not subject to major damage by flooding, or provided that such material and equipment is firmly anchored to prevent flotation or movement, or can be readily removed from the area within the time available after flood warning.
- (7) Other uses and activities similar to those described in (1) through (6), above, provided they cause no increase in flood heights or velocities. All uses, activities, and structural developments shall be undertaken in strict compliance with the floodproofing provisions contained in all other applicable codes and this Ordinance.

- 2. Flood-Fringe Area (FF). In the Flood-Fringe Area, the development and use of land shall be permitted in accordance with the regulations of the underlying zoning district provided that all such uses, activities or development shall be undertaken in strict compliance with the floodproofing and related provisions contained in all other applicable codes and this Ordinance, and further provided that mobile homes shall not be permitted in Flood-Fringe Areas.

3. General Flood Plain Area (FA). In the General Flood Plain Area, development or use of land shall be permitted in accordance with the regulations of the underlying zoning district provided that all such uses, activities, or development shall be undertaken in strict compliance with the floodproofing and related provisions contained in all other applicable codes and this Ordinance and further provided that mobile homes shall not be permitted in General Flood Plain Areas.

C. Section 13.03 – SPECIAL EXCEPTIONS AND VARIANCES – ADDITIONAL FACTORS TO BE CONSIDERED, is hereby amended in its entirety to include the following additional provisions at the end thereof:

In addition to all other requirements set forth in this Article and this Ordinance, in reviewing any request for a variance, the Zoning Hearing Board shall consider 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 or regulations.

Whenever a variance is granted, the Township shall notify the applicant in writing that the granting of the variance may result in increased premium rates for flood insurance and may increase the risks to life and property.

A complete record of all variances and related actions shall be maintained by the Township. In addition, a report of all insurance 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 to resist the one hundred (100) year flood.

D. Section 13.04 – DEVELOPMENT WHICH MAY ENDANGER HUMAN LIFE, is hereby amended only as follows:

1. All references in Section 13.04.A to "Department of Community Affairs" are hereby amended and changed to "Department of Community and Economic

Development".

2. The reference to "(U.S. Army Corps of Engineers, June 1972)" is hereby amended and changed to "(U.S. Army Corps of Engineers, June 1972 as amended March 1992 and any subsequent amendments thereto)".
- E. Section 13.05 – ACTIVITIES REQUIRING SPECIAL PERMITS, is hereby amended only as follows:
1. All references in Section 13.05 to "Department of Community Affairs" and "Department of Environmental Resources" are hereby amended and changed to "Department of Community and Economic Development" and "Department of Environmental Protection", respectively.
 2. Section 13.05 is hereby amended to add thereto the following new paragraph at the end thereof:
 - G. 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, Zoning Hearing Board and the Department of Community and Economic Development.
- F. Section 13.06 – EXISTING STRUCTURES IN FLOOD PLAIN AREAS, is hereby amended to include the following new Paragraph at the end thereof:
- D. The requirements of 34 Pa. Code Chapters 401-405, as amended, and the 2003 IRC (Sections R102.7.1, R105.3.1 and Appendices E and J) or the latest revisions thereof and the 2003 IBC (Sections 101.3, 3403.1 and Appendix G) or the latest revisions thereof shall also be utilized in conjunction with the provisions of this Section.
- G. New Section 13.07 is hereby added to provide as follows.

SECTION 13.07 – ADMINISTRATION

A. Permits Required.

1. Building and zoning permits shall be required before any construction or development is undertaken within the FP – Floodplain Conservation District.
2. The Building Code Official 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.

3. Prior to the issuance of any zoning permit, the Building Code Official 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.
4. 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 Regional Office. In addition, the Federal Emergency Management Agency and Pennsylvania Department of Community and Economic Development, shall be notified by the Township prior to any alteration or relocation of any watercourse

B. Application Procedure and Requirements.

1. To the extent not addressed by procedures for the issuance of a building permit pursuant to the requirements of the Uniform Construction Code as adopted in Middlesex Township, an application for such a building permit shall be made in writing to the Building Code Official on forms supplied by the Township. Such application shall contain the following:
 - a. name and address of applicant;
 - b. name and address of owner of land on which proposed construction is to occur;
 - c. name and address of contractor;
 - d. site location including address;
 - e. listing of other permits required;
 - f. 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; and
 - g. a plan of the site showing the exact size and location of the

proposed construction as well as any existing buildings or structures.

2. If any proposed construction or development is located entirely or partially within any identified floodplain area, applicants for building permits shall provide all the necessary information in sufficient detail and clarity to enable the Building Code Official 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.
3. Applicants shall file the following minimum information plus any other pertinent information as may be required by the Building Code Official to make the above determination:
 - a. a completed building permit application form;
 - b. a plan of the entire site, clearly and legibly drawn at a scale of one (1) inch being equal to one hundred (100) feet or less, showing the following:
 - (1) north arrow, scale and date;
 - (2) topographic contour lines, if available;
 - (3) all property and lot lines including dimensions, and the size of the site expressed in acres or square feet;
 - (4) the location of all existing and proposed buildings, structures and other improvements, including the location of any existing or proposed subdivision and land development;
 - (5) the location of all existing streets, drives and other access ways; and
 - (6) the location of any existing bodies of water or watercourses, identified floodplain areas, and, if available, information pertaining to the floodway and the flow of water including

direction and velocities.

- c. Plans of all proposed buildings, structures and other improvements, drawn at suitable scale showing the following:
 - (1) the proposed lowest floor elevation of any proposed building based upon North American Vertical Datum of 1988;
 - (2) the elevation of the one hundred (100) year flood;
 - (3) if available, information concerning flood depths, pressures, velocities, impact and uplift forces and other factors associated with a one hundred (100) year flood; and
 - (4) detailed information concerning any proposed floodproofing measures.
 - (5) supplemental information as may be necessary under 34 PA Code, Chapters 401-405 as amended, and Section 1612.5.1, Sections 104.7 and 109.3 of the 2003 IBC and Sections R106.1.3 and R104.7 of the 2003 IRC.
- d. The following data and documentation:
 - (1) 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.
 - (2) detailed information needed to determine compliance with Section 13.08.D.6, Storage and Section 13.04 Development Which May Endanger Human Life, including:
 - (i) the amount, location and purpose of any materials or substances referred to in Sections 13.08.D.6 and 13.04 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 13.04.A during a one hundred (100) year flood.

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

C. 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 zoning and building permit or the building permit shall expire unless a time extension is granted, in writing, by the Building Code Official. 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 Code Official to approve such a request.

D. Inspection and Revocation.

1. During the construction period, the Building Code Official or other authorized official shall inspect the premises to determine that the work is progressing in compliance with the information provided on the permit application and with all applicable municipal laws and ordinances. He shall make as many inspections during and upon completion of the work as are necessary.
2. In the discharge of his duties, the Building Code Official 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.
3. In the event the Building Code Official 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 Code Official shall revoke the building permit and report such fact to the Board of Supervisors for whatever action it considers necessary.

4. A record of all such inspections and violations of this Ordinance shall be maintained.
5. The requirements of the 34 PA Code Chapters 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.
6. Any person aggrieved by any action or decision of the Building Code Official may appeal to the Uniform Construction Code Board of Appeals. Such appeal must be filed, in writing, and all applicable fees paid within 30 days after the decision, determination or action.

H. New Section 13.08 is hereby added to provide as follows:

SECTION 13.08 – TECHNICAL PROVISIONS.

A. General.

1. No encroachment, alteration, or improvement of any kind shall be made to any water course 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.
2. Any new construction, development, uses or activities allowed within any identified floodplain area, shall be undertaken in strict compliance with the provisions contained in this Ordinance and any other applicable codes, ordinances and regulations.

B. Special Requirements in the FW and FA Areas.

1. With any FW (Floodway Area), the following provisions apply:
 - a. Any new construction, development, use, activity, or encroachment that would cause any increase in flood heights shall be prohibited.
 - b. No new construction or development shall be allowed, unless a permit is obtained from the Department of Environmental Protection Regional Office.
 - c. Manufactured houses shall be prohibited.

2. Within any FA (General Floodplain Area), the following provisions apply:
 - a. 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.
 - b. Any new construction or development, which would cause any increase in flood heights shall be prohibited within any floodway area.

C. Elevation and Floodproofing Requirements.

1. Residential Structures.

Within any identified floodplain area, any new construction or substantial improvement of a residential structure shall have the lowest floor (including basement) elevated up to, or above, the regulatory flood elevation. The design and construction standards and specifications contained in the 2003 IBC (Sections 1612.4, 1603.1.6 and 3403.1) and in the 2003 IRC (Sections R323.1.4, R323.2.1 and R323.2.2) and ASCE 24 (Sections 2.4 and 2.5, Chapter 5) and 34 PA Code (Chapters 401-405 as amended) shall be utilized.

2. Non-residential Structures.

- a. 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.
- b. 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, shall be flood-proofed 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, as amended March 1992) 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. The design and construction standards and specifications contained in the IBC (Sections 1603.1.2, 1603.1.6, 1605.2.2, 1606.5, 1612.5.1 and 3403.1 and ASCE 24 (Section 2.4 and Chapter 7) and 34 PA Code (Chapters 401-405 as amended) shall be utilized.

3. Space Below the Lowest Floor.

- a. Fully enclosed space below the lowest floor (including basement) is prohibited.
- b. Partially enclosed space below the lowest floor (including basement) which will be used solely for the parking of a vehicle, building access or incidental storage in an area other than a basement, shall be designed and constructed to allow for the automatic entry and exist 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 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 (1) foot above grade.
 - (iii) openings may be equipped with screens, louvers, etc. other coverings or devices provided that they permit the automatic entry and exist of floodwaters.
- c. Consideration may be given to the requirements of 34 PA Code (Chapters 401-405 as amended) and the 2003 IRC (Sections R323.2 and R323.1.4) and the 2003 IBC (Sections 1612.4, 1612.5, 1202.3.2 and 1203.3.3).

4. Accessory Structures.

Structures accessory to a principal building need not be elevated or flood-proofed to remain dry, but shall comply, at a minimum, with the following requirements:

- a. the structure shall not be designed or used for human habitation, but shall be limited to the parking of vehicles, or to the storage of tools, material, and equipment related to the principal use or activity.

- b. floor area shall not exceed 600 square feet.
- c. the structure will have a low damage potential.
- d. the structure will be located on the site so as to cause the least obstruction to the flow of floodwaters.
- e. power lines, wiring, and outlets will be at least one and one-half (1 ½) feet above the 100 year flood elevation.
- f. permanently affixed utility equipment and appliances such as furnaces, heaters, washers, dryers, etc. are prohibited.
- g. sanitary facilities are prohibited.
- h. the structure shall be adequately anchored to prevent flotation or movement and shall be designed to automatically provide for the entry and 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 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 (1) foot 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. Design and Construction Standards.

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

1. Fill.

If fill is used, it shall:

- a. extend laterally at least fifteen (15) feet beyond the building line from all points;

- b. consist of soil or small rock materials only. Sanitary landfills shall not be permitted;
- c. be compacted to provide the necessary permeability and resistance to erosion, scouring or settling;
- d. be no steeper than one (1) vertical to two (2) horizon feet unless substantiated data justifying steeper slopes are submitted to, and approved by, the Zoning Officer; and
- e. be used to the extent to which it does not adversely affect adjacent properties. The provisions contained in the 2003 IBC (Sections 1801.1 and 1803.4) shall be utilized.

2. Drainage Facilities.

Storm drainage facilities shall be designed to convey the flow of stormwater runoff in a safe and efficient manner. The system shall ensure proper drainage along streets, and provide positive drainage away from buildings. The system shall also be designed to prevent the discharge of excess runoff onto adjacent properties. The provisions contained in the 2003 IBC (Appendix G401.5) shall be utilized.

3. Water and Sanitary Sewer Facilities and Systems.

- a. All new or replacement water and sanitary sewer facilities and systems shall be located, designed and constructed to minimize or eliminate flood damages and the infiltration of floodwaters.
- b. Sanitary sewer facilities and systems shall be designed to prevent the discharge of untreated sewage into floodwaters.
- c. 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.
- d. 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, Sections 401.3 and 401.4), the 2003 IRC (Section 323.1.6), the ASCE 24-98 (Section 8.3), FEMA #348, Protecting Building Utilities From Flood Damages and the International Private Sewage Disposal Code (Chapter 3) shall be utilized.

4. 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.

5. Streets.

The finished elevation of all new streets shall be no more than one (1) foot below the Regulatory Flood Elevation.

6. 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 13.04, shall be stored at or above the Regulatory Flood Elevation and/or flood-proofed to the maximum extent possible.

7. 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.

8. Anchoring.

- a. All buildings and structures shall be firmly anchored in accordance with accepted engineering practices to prevent flotation, collapse, or lateral movement.
- b. 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.
- c. 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 (Sections 1605.2.2, 1605.3.1.2, 1612.4 and Appendix G501.3), the IRC (Sections R301.1 and R323.1.1) and ASCE 24-98 (Section 5.6) shall be utilized.

9. Floors, Walls and Ceilings.

- a. 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.

- b. Plywood used at or below the Regulatory Flood Elevation shall be of a "marine" or "water-resistant" variety.
- c. 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.
- d. Windows, doors, and other components at or below the Regulatory Flood Elevation shall be made of metal or other water-resistant material.
- e. 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 (Sections 801.1.3, 1403.2, 1403.4, 1403.6 and 1404.2), the 2003 IRC (Section R323.1.7 and R501.3) and ASCE 24-98 (Chapter 6).

10. Paints and Adhesives.

- a. Paints and other finishes used at or below the Regulatory Flood Elevation shall be of "marine" or "water-resistant" quality.
- b. Adhesives used at or below the Regulatory Flood Elevation shall be of a "marine" or "water-resistant" quality.
- c. All wooden components (doors, trim, cabinets, etc.) shall be finished with a "marine" or "water-resistant" paint or other similar finishing material.
- d. The standards and specifications contained in 34 PA Code (Chapters 401-405, as amended) the 2003 IBC (Sections 801.1.3, 1403.7 and Appendix G) and the 2003 IRC (Section R323.1.7).

11. Electrical Components.

- a. Electrical distribution panels shall be at least three (3) feet above the one hundred (100) year flood elevation.
- b. Separate electrical circuits shall serve lower levels and shall be dropped from above.
- c. 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 (Section 1612.4), the 2003 IRC (Section

R323.1.5), the 2000 IFGC (Sections R301.5 and R1601.3.8) and ASCE 24 (Chapter 8) shall be utilized.

12. Equipment.

- a. 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.
- b. 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 (Section 1612.4), the 2003 IRC (Section R323.1.5), the 2000 IFGC (Sections R301.5 and R1601.3.8) and ASCE 24 (Chapter 8) shall be utilized.

13. 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.

E. Uniform Construction Code Coordination.

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

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

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

SECTION 2: Article III of Ordinance No. 3-89 as amended, known as the Middlesex Township Zoning Ordinance, is hereby amended as follows:

- A. Section 3.04.A.1 is hereby amended to provide in its entirety as follows:

1. Basis of Flood Areas.

The various flood plain areas shall include and consist of any and all areas of Middlesex Township subject to the one hundred (100) year flood, which are identified as Zone A (Area of Special Flood) in the most recent Flood Insurance

Study (FIS) and accompanying maps and any revisions hereto as noted in Article XIII, Section 13.02 of the Ordinance.

B. Sections 3.05 and 3.06 of Article III are deleted in their entirety.

SECTION 3: Except only as amended, modified or changed herein, the Middlesex Township Zoning Ordinance as originally enacted and previously amended shall remain in all other respects in full force and effect.

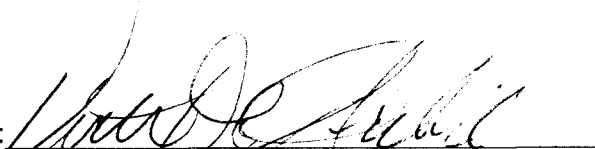
SECTION 4: If any section, subsection, provision, regulation, limitation, restriction, sentence clause, phrase or word in this Ordinance is declared by any reason to be illegal, unconstitutional or invalid by any court of competent jurisdiction, such decision shall not affect or impair the validity of this or the Middlesex Township Zoning Ordinance as a whole, or any other section, subsection, provision, regulation, limitation, restriction, sentence, clause, phrase, word or remaining portion of this Ordinance or the Middlesex Township Zoning Ordinance. The Board of Township Supervisors hereby declares that it would have adopted this Ordinance and each section, subsection, provision, regulation, limitation, restriction, sentence, clause, phrase or word thereof, irrespective of the fact that any one or more of the sections, subsections, provisions, regulations, limitations, restrictions, sentences, clauses, phrases or words may be declared illegal, unconstitutional or invalid.

SECTION 5: This Ordinance shall become effective March 16, 2009.

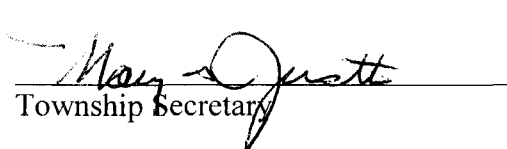
ENACTED AND ORDAINED this 4th day of March, 2009.

TOWNSHIP OF MIDDLESEX

By:


Chairman, Board of Township Supervisors

ATTEST:


Township Secretary

(Township Seal)