

TOWNSHIP OF MIDDLESEX  
CUMBERLAND COUNTY, PENNSYLVANIA

ORDINANCE NO. 5 OF 1981  
(5-81)

AN ORDINANCE REGULATING THE CONSTRUCTION AND MODIFICATION OF STRUCTURES WITHIN FLOOD PLAIN DISTRICTS IN MIDDLESEX TOWNSHIP; PROVIDING STANDARDS OF CONSTRUCTION, BUILDING AND MATERIALS; REGULATING AND PRESCRIBING STANDARDS FOR DRAINAGE FACILITIES, SANITARY SEWER FACILITIES, STREETS AND UTILITIES WITHIN FLOOD PLAIN DISTRICTS; ESTABLISHING ADMINISTRATIVE PROCEDURES, PERMITS AND REVIEW

BE IT ENACTED AND ORDAINED and it is hereby enacted and ordained by the Board of Supervisors of this Township as follows:

ARTICLE I: SUPPLEMENTARY DEFINITIONS FOR DESIGNATED FLOOD PLAIN AREA PROVISIONS

- A. The following are special definitions which shall be used in making reasonable interpretations of the provisions contained in Articles II and III hereinbelow:
1. "Building" - a combination of materials to form a permanent structure having walls and a roof, including but not limited to all mobile homes and trailers used for human habitation.
  2. "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.
  3. "Construction" - the constructions, reconstruction, renovation, repair, extension, expansion, alteration, or relocation of a building structure including the placement of mobile homes.
  4. "Designated Flood Plain Areas" - a relatively flat or low land area adjoining a river, stream, or watercourse which is subject to partial or complete inundation in a one hundred year flood as designated in the Middlesex Township Zoning Ordinance as amended.
  5. "Developer" - any landowner, agent or such land owner or tenant with the permission of such landowner, who makes or causes to be made a subdivision of land or a land development and the subdivision of land.

6. "Development" - any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, the placement of mobile homes, streets and other paving, utilities, mining, dredging, filling, grading, excavation, or drilling operations, and the subdivision of land.
7. "Dwelling" - a building designed and constructed for residential purposes in which people live.
8. "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.
9. "Flood" - a temporary inundation of normally dry land areas.
10. "Flood Fringe" - that portion of the flood plain outside the Floodway.
11. "Floodproofing" - any combination of structural and non-structural 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.
12. "Floodway" - the channel of a stream together with any adjacent flood plain areas that must be kept free of encroachment in order that one hundred year floods be carried without increasing flood heights by more than one foot.
13. "Obstructions" - any wall, dam, wharf, embankment, levee, dike, pile abutment, projection, excavation, channel, rectification, culvert, building, fence, stockpile, refuse, fill, structure, or matter in, along, across or projecting into any channel, watercourse, or designated flood plain areas, which may impede, retard, or change the direction of the flow of water either in itself or by catching or collecting debris carried by such water or is placed where the flow of the water might carry the same downstream to the damage of life and property.
14. "One Hundred Year Flood" - a flood that, on the average, is likely to occur once every one hundred (100) years.
15. "Regulatory Flood Elevation" - the one hundred year flood elevation plus a freeboard safety factor of one and one-half ( $1\frac{1}{2}$ ) feet.

16. "Structure"- anything constructed or erected on the ground or attached to the ground, including but not limited to, buildings, factories, sheds, cabins, mobile homes, and other similar items.

ARTICLE 11: SPECIAL PROVISIONS APPLYING IN DESIGNATED FLOOD PLAIN DISTRICTS

In order to prevent excessive damage to buildings and structures due to flooding conditions, the following provisions shall apply to all proposed construction or development occurring in any of the flood plain areas designated in the Middlesex Township Zoning Ordinance as amended:

Section 11.1 - Residential Structure:

- A. Within any designated Floodway (FW), Floodway Fringe (FF) or General Flood Plain (FA) Areas the lowest floor (including basement of any new or residential structures) shall be at least one and one-half ( $1\frac{1}{2}$ ) feet above the One Hundred Year Flood elevation.

Section 11.2 - Non-Residential Structures:

- A. Within any designated Floodway (FW), Flood-Fringe (FF) or General Flood Plain (FA) Areas, the lowest floor (including basement) shall be at least one and one-half ( $1\frac{1}{2}$ ) feet above the One Hundred 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.
- B. Any structure, or part thereof, which will not be completely or adequately elevated, shall be designed and constructed to be completely or essentially dry in accordance with the standards contained in the publication entitled "Floodproofing Regulations" (U.S. Army Corps of Engineers, June 1972), or some other equivalent standard, for that type of construction.

Section 11.3 - Fill:

- A. If fill is used, it shall:
1. Extend laterally at least fifteen (15) feet beyond the building line from all points;
  2. Consist of clay, loam 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, unless substantiated data, justifying steeper slopes are submitted to and approved by the Middlesex Township Zoning Officer; and
5. Be used to the extent to which it does not adversely affect adjacent properties.

Section 11.4 - Placement of buildings and Structures:

- A. All buildings and structures shall be constructed and placed on the lot so as to offer the minimum obstruction to the flow of water. In so doing, consideration shall be given to their effect upon adjacent property owners and the flow and height of flood waters.

Section 11.5 - Anchoring:

- A. All buildings and structures shall be firmly anchored to prevent flotation, collapse or other movement thus reducing the threat of life and property and decreasing the possibility of the blockage of bridge openings and other restricted sections of the watercourse.
- B. All air ducts, large pipes and storage tanks located at or below the Regulatory Flood Elevation shall be firmly anchored in accordance with accepted engineering practices to prevent flotation.

Section 11.6 - Floor, Walls and Ceilings:

- A. Where located at or below the Regulatory Flood Elevation:
  1. Wood flooring shall be installed to accommodate a lateral expansion of the flooring, perpendicular to the flooring grain, without incurring structural damage to the building.
  2. Plywood shall be of "Exterior" or "marine" grade and of a water-resistant or waterproof variety.
  3. Walls and ceilings in non-residential structures shall have sufficient wet strength and be so installed as to survive inundation.
  4. Window frames, door frames, door jambs and other components shall be made of metal or other water-resistant material.

Section II.7 - Electrical Systems:

- A. All electric water heaters, electric furnaces, electric air conditioning and ventilating systems, and other electrical equipment or apparatus shall be permitted only at elevations above the Regulatory Flood Elevation.
- B. No electrical distribution panels shall be allowed at an elevation less than three (3) feet above the level of the One Hundred Year Flood elevation.
- C. Separate electrical circuits shall serve lower levels and shall be dropped from above.

Section II.8 - Plumbing:

- A. Water heaters, furnaces and other mechanical equipment or apparatus shall be permitted only at elevations above the Regulatory Flood Elevation.
- B. No part of any on-site sewage disposal system shall be constructed within any designated flood plain district.
- C. Water supply systems and sanitary sewage systems shall be designed to preclude infiltration of flood waters into the systems and discharges from the system into flood waters.
- D. All gas and oil supply systems shall be designed to preclude the infiltration of flood waters into the systems and discharges from the systems into flood waters. Additional provisions shall be made for the drainage of these systems in the event that flood water infiltration occurs.

Section II.9 - Paints and Adhesives:

- A. Where located at or below the Regulatory Flood Elevation:
  - 1. Adhesives shall have a bonding strength that is unaffected by inundation (i.e., "marine" or water-resistant quality).
  - 2. All wooden components (doors, trim, cabinets, etc.) shall be sealed with a "marine" or water-resistant quality or similar product.

3. Paints or other finishes shall be capable of surviving inundation (i.e., "marine" or water-resistant quality).

Section 11.10 - Storage:

- A. No materials that are buoyant, flammable, explosive, or in time of flooding could be injurious to human, animal or plant life, shall be stored below the Regulatory Flood Elevation.

Section 11.11 - Drainage Facilities:

- A. Storm drainage facilities shall be designed to convey the flow of surface waters without damage to persons or property. The system shall insure drainage at all points along streets and provide positive drainage away from buildings. The system shall also be designed to prevent the discharge of excess runoff unto adjacent properties.

Section 11.12 - Sanitary Sewer Facilities:

- A. All new or replacement sanitary sewer facilities and private package sewage treatment plants (including all pumping stations and collector systems) shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into the flood waters, and should be located and constructed to minimize or eliminate flood damage and impairment.

Section 11.13 - Streets:

- A. The finished elevation of proposed new streets shall be no more than one (1) foot below the Regulatory Flood Elevation. Profiles and elevations of proposed new streets shall be submitted to the Township to determine compliance with this requirement.

Section 11.14 - Utilities:

- A. All utilities such as gas lines, electrical and telephone systems being placed in designated flood plain areas should be located, elevated (where possible) and constructed to minimize the chance of impairment during a flooding occurrence.

Section 11.15 - Special Flood Damage Control Provisions for Mobile Homes and Mobile Home Parks in the Designated Flood Plain Areas:

- A. All mobile homes and any additions thereto shall be anchored to resist flotation, collapse, or lateral movement by providing over-the-top and frame ties to ground anchors in accordance

with the American National Standards Institute and National Fire Protection Association Standards as specified in the Standard for the Installation of Mobile Homes Including Mobile Home Park Requirements (NFPA No. 501A-1974 (ANSI A119.3-1975)), as amended for Mobile Homes in Hurricane Zones and other appropriate standards such as the following:

1. Over-the-top ties shall be provided at each corner of the mobile home, with two (2) additional ties per side at intermediate locations for units fifty (50) feet or more in length, and one (1) additional tie per side for units less than fifty (50) feet in length.
  2. Frame ties shall be provided at each corner of the mobile home, with five (5) additional ties per side at intermediate locations for units fifty (50) feet or more in length, and four (4) additional ties per side for units less than fifty (50) feet in length.
  3. All components of the anchoring system shall be capable of carrying a force of four thousand eight hundred (4800) pounds.
- B. All mobile homes and any additions thereto shall also be elevated in accordance with the following requirements:
1. The stands or lots shall be elevated on compacted fill or on pilings so that the lowest floor of the mobile home will be at or above the Regulatory Flood Elevation.
  2. Adequate surface drainage shall be provided.
  3. Adequate access for the hauler shall be provided.
  4. Where pilings are used for elevation, the lots shall be large enough to permit steps; piling foundations shall be placed in stable soil no more than ten (10) feet apart; reinforcement shall be provided for pilings that will extend for six (6) feet or more above the ground level.
- C. An evacuation plan indicating alternate vehicular access and escape routes shall be filed with the Township for mobile home parks and mobile home subdivisions where appropriate.
- D. No mobile homes shall be placed in any designated Floodway Area.

Section 11.17 - Existing Structures in Designated Flood Plain Districts:

Structures existing in any designated flood plain area prior to the enactment of this Ordinance, but which are not in compliance with these provisions, may continue to remain, subject to the following:

- A. Existing structures located in a designated Floodway Area shall not be expanded or enlarged, unless the effect of the proposed expansion or enlargement on flood heights is fully offset by accompanying improvements.
- B. Any modification, alteration, reconstruction or improvement of any kind to an existing structure to an extent or amount of less than fifty (50) percent of its market value shall be elevated and/or floodproofed to the greatest extent possible, in accordance with Section II.1 A above.
- C. Any modification, alteration, reconstruction, or improvement of any kind to an existing structure to an extent or amount of fifty (50) percent or more of its market value shall be undertaken only in full compliance with the provisions of this Ordinance.

Section II.18 - Variance:

- A. If compliance with the elevation or floodproofing requirements stated above would result in an exceptional hardship for a prospective builder, developer, or landowner, the Zoning Officer may, upon request, recommend relief be granted from the strict application of the requirement with final approval granted by the Township Board of Supervisors.
- B. Requests for variance to the strict application of the provisions of this Ordinance may be granted by the Township in accordance with the following procedures and criteria:
  - 1. No variance shall be granted for any construction, improvement, development, use or activity within any floodway area that would cause any increase in the One Hundred Year Flood elevation.
  - 2. If granted, a variance shall involve only the least modification necessary to provide relief.
  - 3. In granting any variance, the Township may attach whatever reasonable conditions and safeguards it considers necessary in order to protect the public health, safety and welfare, and to achieve the objectives of this Ordinance.
  - 4. In reviewing any request for a variance, the Zoning Officer shall consider, but not be limited to, the following:
    - (a) That there is good and sufficient cause;
    - (b) That failure to grant the variance would result in exceptional hardship to the applicant; and

(c) That the granting of the variance will not result in any unacceptable or prohibited increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with any other applicable local or state ordinances, laws and regulations.

5. Whenever a variance is granted, the Zoning Officer shall notify the applicant in writing that:

(a) The granting of the variance may result in increased premium rates for flood insurance; and

(b) Such variance may increase the risks of life and property.

6. A complete record of all variance requests and related actions shall be maintained by the Zoning Officer. A report of all variances granted during the year shall be included in the annual report to the Federal Insurance Administration.

C. Notwithstanding any of the above, however, all structures shall be designed and constructed so as to have the capacity of resisting the hydrostatic and hudsonodynamic loads and pressures, and effects of buoyancy of the One Hundred Year Flood.

#### ARTICLE III: SUPPLEMENTARY ADMINISTRATIVE PROVISIONS FOR ACTIVITIES IN DESIGNATED FLOOD PLAIN DISTRICTS

##### Section III.1 - Permit Required:

- A. It shall be unlawful for any person, partnership, corporation or other entity to construct, build, install, modify, alter, improve or otherwise develop any building, structure or development within any designated flood plain area without first having obtained a Flood Area Building Permit.
- B. The Middlesex Township Zoning Officer is designated to be the issuer of Flood Area Building Permits.
- C. The Zoning Officer shall develop and provide appropriate Flood Area Building Permit application forms in order to administer this Ordinance.
- D. The Board of Supervisors of this Township from time to time shall establish by Resolution fees for the processing of applications for Flood Area Building Permits.

##### Section III.2 - Permit and Plan Requirements:

- A. In addition to the permit application requirements normally required under other Township Ordinances, the Zoning Officer

shall require the following specific information to be included as part of the application for a Flood Area Building Permit.

1. A plan which details the existing and proposed contours and elevation (in relation to mean sea level) of the ground and the lowest floor of proposed construction, One Hundred Year Flood Elevations and other associated factors such as pressures, and impact forces, etc., storage elevations, size of the structure, location and elevations of streets, water supply, sanitary facilities, soil types and floodproofing measures, including specific reference to the level of the floodproofing in relation to a One Hundred Year Flood; and
2. A document, certified by a registered professional engineer or architect, which states that the proposed construction has been adequately designed to withstand the flood depths, pressures, velocities, impact and uplift forces and other hydrostatic and hydrodynamic and buoyancy factors associated with a One Hundred Year Flood. Such statement shall include a description of the type and extent of floodproofing measures which have been incorporated into the design of the structure.

Section III.3 - Review of County Planning Commission:

- A. A copy of all applications and plans for construction and/or improvements in any designated Flood plain are to be considered for approval shall be submitted by the Zoning Officer to the County Planning Commission for review and comment prior to the issuance of a Flood Area Building Permit. The recommendations of the County Planning Commission shall be considered by the Zoning Officer for possible incorporation into the proposed plan.

Section III.4 - Other Permit Issuance Requirements:

- A. Prior to the issuance of any Flood Area Building Permit, the Zoning Officer shall review the application for permit to determine if all other necessary Township or governmental permits, such as those required by State and Federal laws, have been obtained, including those required by Act 537, the Pennsylvania Sewage Facilities Act, the Pennsylvania Water Obstructions Act of 1913, and the Federal Water Pollution Control Act Amendments of 1972, Section 404, U.S.C. 1334. No permit shall be issued until this determination has been made.

Section III.5 - Start of Construction:

- A. For purposes of implementation of these provisions, construction shall be considered to have started with the first placement of permanent construction of the site, such as the pouring of slabs

or footings or any work beyond the stage of excavation. For a structure without a basement or poured footings, the start of construction includes the first permanent framing or assembly of the structure or any part thereof on its pilings or foundation, or the affixing of any prefabricated structures or mobile home to its permanent site. Permanent construction does not include land preparation, land clearing, grading, filling, excavation for basement, footings, piers, or foundations, erection of temporary forms, the installation of piling under proposed sub-surface footings, or the installation of sewer, gas and water pipes or electric or other service lines from the street.

#### ARTICLE IV: ENFORCEMENT

##### Section IV.1 - Designation of Enforcement Official:

- A. It shall be the duty of the Middlesex Township Zoning Officer to enforce the provisions of this Ordinance, and said Zoning Officer is hereby authorized and empowered to enforce the provisions hereof.

##### Section IV.2 - Inspection:

- A. The Zoning Officer shall have the right to inspect all premises for which a Flood Area Building Permit has been issued at any time, said inspection being an adjunct to the Permit for which the applicant shall be deemed to have consented in making the application for such permit.

##### Section IV.3 - Violations:

- A. Failure to comply with any provision of this Ordinance shall be deemed to be a violation of this Ordinance, such failure to comply being unlawful and contrary to the public policy of this Township.

##### Section IV.4 - Penalties:

- A. Any person, partnership, corporation or other entity who or which shall violate any provision of this Ordinance shall be guilty of a summary offense, and upon conviction thereof in a summary proceeding, shall be sentenced to pay a fine of not more than three hundred (\$300.00) Dollars. In default of payment of such fine, the person so convicted, or the member of the partnership so convicted may be sentenced and committed to the Cumberland County Prison for a period not exceeding thirty (30) days.
- B. Each day that a violation of this Ordinance is continued shall constitute a separate offense.
- C. All fines collected for the violation of this Ordinance shall be paid over to the Township of Middlesex.

Section IV.5 - Restraint, Injunction and Abatement:

- A. In the event that any person, partnership, corporation or other entity shall violate or attempt to violate any provision of this Ordinance, the Board of Supervisors, in addition to all other remedies, shall have the right to institute any appropriate action at law or in equity in order to prevent, restrain, enjoin and/or abate such violation or the results thereof.

ARTICLE V: CONSTRUCTION AND INTERPRETATION

Section V.1 - Severability:

- A. If any sentence, clause, phrase or section of this Ordinance is for any reason found to be unconstitutional, illegal or invalid, such unconstitutionality, illegality or invalidity shall not affect or impair any of the remaining provisions, sentences, clauses, phrases, sections or parts of this Ordinance. It is hereby declared as the intention of the Board of Commissioners of this Township that this Ordinance would have been adopted had such unconstitutional, illegal or invalid sentence, clause, phrase, section or part thereof not been included herein.

ENACTED AND ORDAINED this 09 day of June, 1981.

TOWNSHIP OF MIDDLESEX  
Cumberland County, Pennsylvania

By Albert M. Shover  
Chairman, Board of Supervisors

By David C. Witzel  
Member, Board of Supervisors

By Robert M. Epler  
Member, Board of Supervisors

ATTEST:

W. G. Dutton  
Secretary

(TOWNSHIP SEAL)