BOROUGH OF PENNINGTON
ORDINANCE 2016-14

AN ORDINANCE CONCERNING FLOOD DAMAGE PREVENTION AND AMENDING CHAPTER 108 OF THE BOROUGH CODE

WHEREAS, the New Jersey Department of Environmental Protection (NJ DEP) has notified all Mercer County municipalities that they are required to update their Flood Damage Prevention Ordinances in order to continue participation in and comply with the National Flood Insurance Program;

WHEREAS, NJ DEP has reviewed Pennington Borough's existing Flood Damage Prevention Ordinance enacted in 1988 and codified in Chapter 108 of the Borough Code and recommended replacing it with an updated ordinance in the form set forth below;

WHEREAS, this ordinance is a prerequisite for any resident to obtain flood insurance and for the Borough to obtain FEMA funding;

WHEREAS, this Ordinance was introduced and adopted on first reading by Pennington Borough Council on June 1, 2016 and was subsequently reviewed by NJDEP Dam Safety & Flood Control which advised that minor changes are needed solely for the purpose of clarification, such changes not requiring re-introduction of the Ordinance;

WHEREAS, the clarifying language required by NJDEP is found in Section 5.2-2 and the deletion required by NJDEP is found in subsection 5.2-2 a), as shown by underlining and brackets respectively below;

NOW, THEREFORE, BE IT ORDAINED, by the Borough Council of the Borough of Pennington, that Sections 108-1 through 108-5 of Chapter 108 of the Code of the Borough of Pennington are hereby superseded by the following:

SECTION 1.0
STATUTORY AUTHORIZATION, FINDINGS OF FACT, PURPOSE AND OJECTIVES

1.1 STATUTORY AUTHORIZATION

The Legislature of the State of New Jersey has in N.J.S.A. 40:48-1,et seq., delegated to local governmental units responsibility for adopting regulations designed to promote the public health, safety, and general welfare of its citizenry.

1.2 FINDINGS OF FACT

a) The flood hazard areas of the Borough of Pennington are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.
b) These flood losses are caused by the cumulative effect of obstructions in areas of special flood hazard which increase flood heights and velocities, and when inadequately anchored, causes damage in other areas. Uses that are inadequately floodproofed, elevated or otherwise protected from flood damage also contribute to the flood loss.

1.3 STATEMENT OF PURPOSE

It is the purpose of this ordinance to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

a) Protect human life and health;
b) Minimize expenditure of public money for costly flood control projects;
c) Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
d) Minimize prolonged business interruptions;
e) Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, bridges located in areas of special flood hazard;
f) Help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as to minimize future flood blight areas;
g) Ensure that potential buyers are notified that property is in an area of special flood hazard; and
h) Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

1.4 METHODS OF REDUCING FLOOD LOSSES

In order to accomplish its purposes, this ordinance includes methods and provisions for:

a) Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;
b) Requiring that uses vulnerable to floods including facilities which serve such uses, be protected against flood damage at the time of initial construction;
c) Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;
d) Controlling filling, grading, dredging, and other development which may increase flood damage; and,
e) Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas.

SECTION 2.0
DEFINITIONS

Unless specifically defined below, words or phrases used in this ordinance shall be interpreted so as to give them the meaning they have in common usage and to give this ordinance its most reasonable application.

Appeal — A request for a review of the Construction Official's interpretation of any provision of this ordinance or a request for a variance.

Area of Special Flood Hazard —Land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year. It is shown on the FIRM as Zone V, VE, V1-30, A, AO, A1-A30, AE, A99, or AH.

Base Flood —A flood having a one percent chance of being equaled or exceeded in any given year.

Base Flood Elevation (BFE) – The flood elevation shown on a published Flood Insurance Study (FIS) including the Flood Insurance Rate Map (FIRM). For zones AE, AH, AO, and A1-30 the elevation represents the water surface elevation resulting from a flood that has a 1-percent or greater chance of being equaled or exceeded in any given year.

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

Breakaway Wall — A wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces without causing damage to the elevated portion of the building or supporting foundation system.

Development — Any man made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials located within the area of special flood hazard.

Digital Flood Insurance Rate Map (DFIRM) — The official map on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

Elevated Building — A non-basement building (i) built, in the case of a building in an Area of Special Flood Hazard, to have the top of the elevated floor, elevated above the base flood elevation plus freeboard by means of piling, columns (posts and piers), or shear walls parallel to the flow of the water, and (ii) adequately anchored so as not to impair the structural integrity of the building during a flood up to the magnitude of the base flood. In an Area of Special Flood Hazard "elevated building" also includes a building elevated by means of fill or solid foundation perimeter walls with openings sufficient to facilitate the unimpeded movement of flood waters.

Existing Manufactured Home Park or Subdivision — A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the floodplain management regulations adopted by a community.

Flood or Flooding — A general and temporary condition of partial or complete inundation of normally dry land areas from:
a) The overflow of inland or tidal waters and/or
b) The unusual and rapid accumulation or runoff of surface waters from any source.

Flood Insurance Rate Map (FIRM) — The official map on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

Flood Insurance Study (FIS) — The official report in which the Federal Insurance Administration has provided flood profiles, as well as the Flood Insurance Rate Map(s) and the water surface elevation of the base flood.

Floodplain Management Regulations — Zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as a floodplain ordinance, grading ordinance and erosion control ordinance) and other applications of police power. The term describes such State or local regulations, in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

Floodproofing — Any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

Floodway — The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without accumulatively increasing the water surface elevation more than 0.2 foot.

Freeboard — A factor of safety usually expressed in feet above a flood level for purposes of flood plain management. “Freeboard” tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, bridge openings, and the hydrological effect of urbanization of the watershed.

Highest Adjacent Grade — The highest natural elevation of the ground surface prior to construction next to the proposed or existing walls of a structure.

Historic Structure — Any structure that is:

a) Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
b) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
c) Individually listed on a State inventory of historic places in States with historic preservation programs which have been approved by the Secretary of the Interior; or
d) Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:
    (1) By an approved State program as determined by the Secretary of the Interior; or
    (2) Directly by the Secretary of the Interior in States without approved programs.

Lowest Floor — The lowest floor of the lowest enclosed area [including basement]. An unfinished or flood resistant enclosure, useable solely for the parking of vehicles, building access or storage in an area other than a basement is not considered a building's lowest floor provided that such enclosure is not built so to render the structure in violation of other applicable non-elevation design requirements of 44 CFR Section 60.3.

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 "manufactured home" does not include a "recreational vehicle".

Manufactured Home Park or Manufactured Home Subdivision — A parcel (or contiguous parcels) of land divided into two (2) or more manufactured home lots for rent or sale.

New Construction — Structures for which the start of construction commenced on or after the effective date of a floodplain regulation adopted by a community and includes any subsequent improvements to such structures.

New Manufactured Home Park or Subdivision — A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of the floodplain management regulations adopted by the municipality.

Recreational Vehicle — A vehicle which is [i] built on a single chassis; [ii] 400 square feet or less when measured at the longest horizontal projections; [iii] designed to be self-propelled or permanently towable by a light duty truck; and [iv] designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

Start of Construction — For other than new construction or substantial improvements under the Coastal Barrier Resources Act (P.L. No. 97-348) includes substantial improvements and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site such as the pouring of a slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation, or the placement of a manufactured home on a foundation.

Permanent construction does not include land preparation, such as clearing, grading and filling nor does it include the installation of streets and/or walkways, nor does it include excavation for a basement, footings or piers, or foundations or the erection of temporary forms, nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

Structure — A walled and roofed building, a manufactured home, or a gas or liquid storage tank that is principally above ground.

Substantial Damage — Damage of any origin sustained by a structure whereby the cost of restoring the structure to its condition before damage would equal or exceed 50 percent of the market value of the structure before the damage occurred.

Substantial Improvement — Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred "substantial damage", regardless of the actual repair work performed. The term does not include, however, either:

a) Any project for improvement of a structure to correct existing violations of State or local health, sanitary or safety code specifications which have been identified by the local code enforcement officer and which are the minimum necessary to assure safe living conditions; or
b) Any alteration of a "historic structure", provided that the alteration will not preclude the structure's continued designation as a "historic structure".

Variance — A grant of relief from the requirements of this ordinance that permits construction in a manner that would otherwise be prohibited by this ordinance.

Violation — The failure of a structure or other development to be fully compliant with this ordinance. A new or substantially improved structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in 44 CFR §60.3(b)(5), (c)(4), (c)(10), (e)(2), (e)(4), or (e)(5) is presumed to be in violation until such time as that documentation is provided.

SECTION 3.0
GENERAL PROVISIONS

3.1 LANDS TO WHICH THIS ORDINANCE APPLIES

This ordinance shall apply to all areas of special flood hazards within the jurisdiction of the Borough of Pennington, Mercer County, New Jersey.

3.2 BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD

The areas of special flood hazard for the Borough of Pennington, Community No. 340251, are identified and defined on the following documents prepared by the Federal Emergency Management Agency:

a) A scientific and engineering report “Flood Insurance Study, Mercer County, New Jersey (All Jurisdictions)” dated July 20, 2016.
b) “Flood Insurance Rate Map for Mercer County, New Jersey (All Jurisdictions)” as shown on Index, and DFIRM panel(s) 34021C0108F, 34021C0109F, whose effective date is July 20, 2016.

The above documents are hereby adopted and declared to be a part of this ordinance. The Flood Insurance Study, maps and advisory documents are on file at 30 North Main Street, Pennington, New Jersey.

3.3 PENALTIES FOR NONCOMPLIANCE

No structure or land shall hereafter be constructed, re-located to, extended, converted, or altered without full compliance with the terms of this ordinance and other applicable regulations. Violation of the provisions of this ordinance by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions)

shall constitute a misdemeanor. Any person who violates this ordinance or fails to comply with any of its requirements shall upon conviction thereof be fined not more than $1,000.00 or imprisoned for not more than 90 days, or both, for each violation, and in addition shall pay all costs and expenses involved in the case. Nothing herein contained shall prevent the Borough of Pennington, from taking such other lawful action as is necessary to prevent or remedy any violation.

3.4 ABROGATION AND GREATER RESTRICTIONS

This ordinance is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this ordinance and other ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

3.5 INTERPRETATION

In the interpretation and application of this ordinance, all provisions shall be:

a) Considered as minimum requirements;
b) Liberally construed in favor of the governing body; and,
c) Deemed neither to limit nor repeal any other powers granted under State statutes.

3.6 WARNING AND DISCLAIMER OF LIABILITY

The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This ordinance does not imply that land outside the area of special flood hazards or uses permitted within such areas will be free from flooding or flood damages.

This ordinance shall not create liability on the part of the Borough of Pennington, any officer or employee thereof or the Federal Insurance Administration, for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made thereunder.

SECTION 4.0
ADMINISTRATION

4.1 ESTABLISHMENT OF DEVELOPMENT PERMIT

A Development Permit shall be obtained before construction or development begins, including placement of manufactured homes, within any area of special flood hazard established in section 3.2. Application for a Development Permit shall be made on forms furnished by the Construction Official and may include, but not be limited to; plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities; and the location of the foregoing. Specifically, the following information is required:

a) Elevation in relation to mean sea level, of the lowest floor (including basement) of all structures;
b) Elevation in relation to mean sea level to which any structure has been floodproofed.
c) Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in section 5.2-2; and,
d) Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

4.2 DESIGNATION OF THE LOCAL ADMINISTRATOR

The Construction Official is hereby appointed to administer and implement this ordinance by granting or denying development permit applications in accordance with its provisions.

4.3 DUTIES AND RESPONSIBILITIES OF THE ADMINISTRATOR

Duties of the Construction Official shall include, but not be limited to:

4.3-1 PERMIT REVIEW

a) Review all development permits to determine that the permit requirements of this ordinance have been satisfied.
b) Review all development permits to determine that all necessary permits have been obtained from those Federal, State or local governmental agencies from which prior approval is required.
c) Review all development permits to determine if the proposed development is located in the floodway. If located in the floodway, assure that the encroachment provisions of 5.3 a) are met.

4.3-2 USE OF OTHER BASE FLOOD AND FLOODWAY DATA

When base flood elevation and floodway data has not been provided in accordance with section 3.2, BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD, the

Construction Official shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a Federal, State or other source, in order to administer sections 5.2-1, SPECIFIC STANDARDS, RESIDENTIAL CONSTRUCTION, and 5.2-2, SPECIFIC STANDARDS, NONRESIDENTIAL CONSTRUCTION.

4.3-3 INFORMATION TO BE OBTAINED AND MAINTAINED

a) Obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement.
b) For all new or substantially improved floodproofed structures:
   i. verify and record the actual elevation (in relation to mean sea level); and
   ii. maintain the floodproofing certifications required in section 4.1 c).
c) Maintain for public inspection all records pertaining to the provisions of this ordinance.

4.3-4 ALTERATION OF WATERCOURSES

a) Notify adjacent communities and the New Jersey Department of Environmental Protection, Dam Safety and Flood Control Section and the Land Use Regulation Program prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration.
b) Require that maintenance is provided within the altered or relocated portion of said watercourse so the flood carrying capacity is not diminished.

4.3-5 SUBSTANTIAL DAMAGE REVIEW

a) After an event resulting in building damages, assess the damage to structures due to flood and non-flood causes.
b) Record and maintain the flood and non-flood damage of substantial damage structures and provide a letter of Substantial Damage Determination to the owner and the New Jersey Department of Environmental Protection, Dam Safety and Flood Control Section.
c) Ensure substantial improvements meet the requirements of sections 5.2-1, SPECIFIC STANDARDS, RESIDENTIAL CONSTRUCTION, and 5.2-2, SPECIFIC STANDARDS, NONRESIDENTIAL CONSTRUCTION.

4.3-6 INTERPRETATION OF FIRM BOUNDARIES

Make interpretations where needed, as to the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in section 4.4.

4.4 VARIANCE PROCEDURE

4.4-1 APPEAL BOARD

a) The Planning Board shall hear and decide appeals and requests for variances from the requirements of this ordinance.
b) The Planning Board shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the Construction Official in the enforcement or administration of this ordinance.
c) Those aggrieved by the decision of the Planning Board, or any taxpayer, may appeal such decision to the Superior Court of New Jersey, as provided in N.J.S.A. 40:55D-17h & 18..
d) In passing upon such applications, the Planning Board, shall consider all technical evaluations, all relevant factors, standards specified in other sections of this ordinance, and:
   i. the danger that materials may be swept onto other lands to the injury of others;
   ii. the danger to life and property due to flooding or erosion damage;
   iii. the susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
   iv. the importance of the services provided by the proposed facility to the community;
   v. the necessity to the facility of a waterfront location, where applicable;
   vi. the availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
   vii. the compatibility of the proposed use with existing and anticipated development;
   viii. the relationship of the proposed use to the comprehensive plan and floodplain management program of that area;
   ix. the safety of access to the property in times of flood for ordinary and emergency vehicles;
   x. the expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site; and,
   xi. the costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.

e) Upon consideration of the factors of section 4.4-1 d) and the purposes of this ordinance, the Planning Board may attach such conditions to the granting of variances as it deems necessary to further the purposes of this ordinance.
f) The Construction Official shall maintain the records of all appeal actions, including technical information, and report any variances to the Federal Insurance Administration upon request.

4.4-2 CONDITIONS FOR VARIANCES

a) Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing items i.-xi. in section 4.4-1 d) have been fully considered. As the lot size increases beyond the one-half acre, the technical justification required for issuing the variance increases.
b) Variances may be issued for the repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.
c) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
d) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
e) Variances shall only be issued upon:
   i. A showing of good and sufficient cause;
   ii. A determination that failure to grant the variance would result in exceptional hardship to the applicant; and,
   iii. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public as identified in section 4.4- 1 d), or conflict with existing local laws or ordinances.
f) Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below the base flood elevation and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

SECTION 5.0
PROVISIONS FOR FLOOD HAZARD REDUCTION

5.1 GENERAL STANDARDS

In all areas of special flood hazards, compliance with the applicable requirements of the Uniform Construction Code (N.J.A.C. 5:23) and the following standards, whichever is more restrictive, is required:

5.1-1 ANCHORING

a) All new construction to be placed or substantially improved and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.
b) All manufactured homes to be placed or substantially improved shall be anchored to resist flotation, collapse or lateral movement. Methods of anchoring may include, but are not to be limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable state and local anchoring requirements for resisting wind forces.

5.1-2 CONSTRUCTION MATERIALS AND METHODS

a) All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
b) All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.

5.1-3 UTILITIES

a) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;
b) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters;
c) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding; and
d) For all new construction and substantial improvements the electrical, heating, ventilation, plumbing and air-conditioning equipment and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

5.1-4 SUBDIVISION PROPOSALS

a) All subdivision proposals and other proposed new development shall be consistent with the need to minimize flood damage;
b) All subdivision proposals and other proposed new development shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage;
c) All subdivision proposals and other proposed new development shall have adequate drainage provided to reduce exposure to flood damage; and,
d) Base flood elevation data shall be provided for subdivision proposals and other proposed new development which contain at least fifty (50) lots or five (5) acres (whichever is less).

5.1-5 ENCLOSURE OPENINGS

All new construction and substantial improvements having fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria: A minimum of two (2) openings in at least two exterior walls of each enclosed area, having a total net area of not less than one (1) square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one (1) foot above grade. Openings may be equipped with screens, louvers, or other covering or devices provided that they permit the automatic entry and exit of floodwaters.

5.2 SPECIFIC STANDARDS

In all areas of special flood hazards where base flood elevation data have been provided as set forth in section 3.2, BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD or in section 4.3-2, USE OF OTHER BASE FLOOD DATA, the following standards are required:

5.2-1 RESIDENTIAL CONSTRUCTION

a) New construction and substantial improvement of any residential structure located in an A or AE zone shall have the lowest floor, including basement together with the attendant utilities and sanitary facilities, elevated at or above the base flood elevation plus one (1) foot or as required by ASCE/SEI 24-14, Table 2-1, whichever is more restrictive**;**

5.2-2 NONRESIDENTIAL CONSTRUCTION

In an Area of Special Flood Hazard, all new construction and substantial improvement of any commercial, industrial or other nonresidential structure <u>located in and A or AE zone (for Coastal A Zone construction see section 5.3 COASTAL A ZONE)</u> shall have the lowest floor, including basement together with the attendant utilities and sanitary facilities:
either

a) Elevated to or above the base flood elevation plus one (1) foot or as required by ASCE/SEI 24-14, Table 2-1, whichever is more restrictive; **[**and/**]**or
b) Be flood proofed so that below the base flood level plus one (1) foot or as required by ASCE/SEI 24-14, Table 6-1, whichever is more restrictive, the structure is watertight with walls substantially impermeable to the passage of water;
c) Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and,
d) Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting the applicable provisions of this subsection. Such certification shall be provided to the official as set forth in section 4.3-3 b) ii.

5.2-3 MANUFACTURED HOMES

a) Manufactured homes shall be anchored in accordance with section 5.1-1 b).
b) All manufactured homes to be placed or substantially improved within an area of special flood hazard shall:
    i. Be consistent with the need to minimize flood damage,
    ii. Be constructed to minimize flood damage,
    iii. Have adequate drainage provided to reduce exposure to flood damage; and,
    iv. Be elevated on a permanent foundation such that the top of the lowest floor is at or above the base flood elevation plus one (1) foot or as required by ASCE/SEI 24-14, Table 2-1, whichever is more restrictive.

5.3 FLOODWAYS

Located within areas of special flood hazard established in section 3.2 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

a) Prohibit encroachments, including fill, new construction, substantial improvements, and other development unless a technical evaluation demonstrates that encroachment shall not result in any increase in flood levels during the occurrence of the base flood discharge.
b) If section 5.3 a) is satisfied, all new construction and substantial improvements must comply with section 5.0 PROVISIONS FOR FLOOD HAZARD REDUCTION.
c) In all areas of special flood hazard in which base flood elevation data has been provided and no floodway has been designated, the accumulative effect of any proposed development, when combined with all other existing and anticipated development, shall not increase the water surface elevation of the base flood more than two-tenths (0.2) of a foot at any point.

SECTION 6.0
SEVERABILITY

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

SECTION 7.0
ENACTMENT

7.01 ADOPTION

This Ordinance shall be effective on *July 20, 2016* and shall remain in force until modified, amended or rescinded by *Borough of Pennington, Mercer County*, New Jersey.

Introduced: June 1, 2016

Advertised: July 1, 2016

Public Hearing: July 11, 2016

Adopted: July 11, 2016

Published: July 22, 2016

ATTEST:

Elizabeth Sterling, Borough Clerk

APPROVED:

Anthony Persichilli, Mayor