

BOROUGH OF CHRISTIANA
ORDINANCE NO. 225

AN ORDINANCE AMENDING CHAPTER 8 OF THE
BOROUGH OF CHRISTIANA CODE OF ORDINANCES BY
REPLACING THE PRIOR FLOODPLAIN PROVISIONS WITH
THE DEFINITIONS, REQUIREMENTS, AND REGULATIONS
CONTAINED HEREIN:

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

ARTICLE I. STATUTORY AUTHORIZATION

The Legislature of the Commonwealth of Pennsylvania has, by the passage of the Pennsylvania Flood Plain Management Act of 1978, delegated the responsibility to local governmental units to adopt floodplain management regulations to promote public health, safety, and the general welfare of its citizenry. Therefore, the Council of the Borough of Christiana does hereby order as follows.

ARTICLE II. GENERAL PROVISIONS

Section 2.01 Intent

The intent of this Ordinance is to:

- A. Promote the general health, welfare, and safety of the Borough.
- B. Encourage the utilization of appropriate construction practices in order to prevent or minimize flood damage in the future.
- C. Minimize danger to public health by protecting water supply and natural drainage.
- D. Reduce financial burdens imposed on the Borough, its governmental units, and its residents, by preventing excessive development in areas subject to flooding.
- E. Comply with federal and state floodplain management requirements.

Section 2.02 Applicability

- A. It shall be unlawful for any person, partnership, business or corporation to undertake, or cause to be undertaken, any construction or development within a floodplain area, as defined in this Ordinance, within the Borough of Christiana unless a Permit has been obtained from the Floodplain Administrator.
- B. A Permit shall not be required for minor repairs to existing buildings or structures.

C. Definitions within this Ordinance can be found in Article IX.

Section 2.03 Abrogation and Greater Restrictions

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

Section 2.04 Severability

This Ordinance is a supplemental ordinance to the Borough’s building permit and zoning regulations set forth in the Zoning Ordinance of the Borough. This Ordinance is not intended to repeal any of the provisions of any ordinance of the Borough, and all other ordinance provisions shall remain in full force and effect.

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 2.05 Warning and Disclaimer of Liability

The degree of flood protection sought by the provisions of this Ordinance is considered reasonable for regulatory purposes and is based on accepted engineering methods of study. Larger floods may occur or flood heights may be increased by man-made or natural causes, such as ice jams and bridge openings restricted by debris. This Ordinance does not imply that areas outside any identified floodplain areas, or that land uses permitted within such areas will be free from flooding or flood damages.

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

ARTICLE III. ADMINISTRATION

Section 3.01 Designation of the Floodplain Administrator

The Zoning Officer is hereby appointed to administer and enforce this Ordinance and is referred to herein as the Floodplain Administrator. The Floodplain Administrator may: (A) Fulfill the duties and responsibilities set forth in these regulations, (B) Delegate duties and responsibilities set forth in these regulations to qualified technical personnel, plan examiners, inspectors, and other employees, or (C) Enter into a written agreement or written contract with another agency or private sector entity to administer specific provisions of these regulations. Administration of any part of these regulations by another entity shall not relieve the Borough of its responsibilities pursuant to the participation requirements of the National Flood Insurance Program as set forth

in the Code of Federal Regulations at 44 C.F.R. Section 59.22.

Section 3.02 Permits Required

A Permit shall be required before any construction or development is undertaken within any floodplain area of the Borough of Christiana.

Section 3.03 Duties and Responsibilities of the Floodplain Administrator

- A. The Floodplain Administrator shall issue a 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 Parts.
- B. Prior to the issuance of any permit, the Floodplain Administrator 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.
- C. During the construction period, the Floodplain Administrator 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 Parts. He/she shall make as many inspections during and upon completion of the work as are necessary.
- D. In the discharge of his/her duties, the Floodplain Administrator 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.
- E. In the event the Floodplain Administrator discovers that the work does not comply with the permit application or any applicable laws and Parts, or that there has been a false statement or misrepresentation by any applicant, the Floodplain Administrator shall revoke the Permit and report such fact to the Council for whatever action it considers necessary.
- F. The Floodplain Administrator shall maintain in perpetuity all records associated with the requirements of this Ordinance including, but not limited to, finished construction elevation data, permitting, inspection and enforcement.
- G. The Floodplain Administrator is the official responsible for submitting a biennial report to FEMA concerning Borough participation in the National Flood Insurance Program.
- H. The responsibility, authority and means to implement the commitments of the Floodplain Administrator can be delegated from the person identified. However, the ultimate responsibility lies with the person identified in the floodplain Ordinance as the floodplain

administrator/manager.

- I. The Floodplain Administrator shall consider the requirements of the 34 PA Code and the 2009 IBC and the 2009 IRC or the latest edition thereof adopted by the State of Pennsylvania.

Section 3.04 Application Procedures and Requirements

- A. Application for such a Permit shall be made, in writing, to the Floodplain Administrator on forms supplied by the Borough of Christiana. Such application shall contain the following:
 1. Name and address of applicant.
 2. Name and address of owner of land on which proposed construction is to occur.
 3. Name and address of contractor.
 4. Site location including address.
 5. Listing of other permits required.
 6. Brief description of proposed work and estimated cost, including a breakout of flood-related cost and the market value of the building before the flood damage occurred where appropriate.
 7. A plan of the site showing the exact size and location of the proposed construction as well as any existing buildings or structures.
- B. If any proposed construction or development is located entirely or partially within any identified floodplain area, applicants for Permits shall provide all the necessary information in sufficient detail and clarity to enable the Floodplain Administrator to determine that:
 1. all such proposals are consistent with the need to minimize flood damage and conform with the requirements of this and all other applicable codes, ordinances and Parts;
 2. all utilities and facilities, such as sewer, gas, electrical and water systems are located and constructed to minimize or eliminate flood damage;
 3. adequate drainage is provided so as to reduce exposure to flood hazards;
 4. structures will be anchored to prevent floatation, collapse, or lateral movement;
 5. building materials are flood-resistant;
 6. appropriate practices that minimize flood damage have been used; and

7. electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities have been designed and located to prevent water entry or accumulation.
- C. Applicants shall file the following minimum information plus any other pertinent information as may be required by the Floodplain Administrator to make the above determination:
1. A completed Permit Application Form.
 2. A plan of the entire site, clearly and legibly drawn at a scale of one (1) inch being equal to one hundred (100) feet or less, showing the following:
 - a. north arrow, scale, and date;
 - b. topographic contour lines, if available;
 - c. the location of all existing and proposed buildings, structures, and other improvements, including the location of any existing or proposed subdivision and development;
 - d. the location of all existing streets, drives, and other access ways; and
 - e. the location of any existing bodies of water or watercourses, identified floodplain areas, and, if available, information pertaining to the floodway, and the flow of water including direction and velocities.
 3. Plans of all proposed buildings, structures and other improvements, drawn at suitable scale showing the following:
 - a. the proposed lowest floor elevation of any proposed building based upon North American Vertical Datum of 1988;
 - b. the elevation of the base flood;
 - c. supplemental information as may be necessary under 34 PA Code, the 2009 IBC or the 2009 IRC or latest edition thereof adopted by the State of Pennsylvania.
 4. The following data and documentation:
 - a. detailed information concerning any proposed floodproofing measures and corresponding elevations.
 - b. if available, information concerning flood depths, pressures, velocities, impact and uplift forces and other factors associated with a base flood.
 - c. documentation, certified by a registered professional engineer or

architect, to show that the cumulative effect of any proposed development within Floodway Area (See section 4.02 A) when combined with all other existing and anticipated development, will not increase the base flood elevation at any point.

- d. 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 base 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.

- e. detailed information needed to determine compliance with Section 5.03 F., Storage, and Section 5.04, Development Which May Endanger Human Life, including:
 - i. the amount, location and purpose of any materials or substances referred to in Sections 5.03 F. and 5.04 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 5.04 during a base flood.
- f. the appropriate component of the Department of Environmental Protection's "Planning Module for Land Development."
- g. where any excavation or grading is proposed, a plan meeting the requirements of the Department of Environmental Protection, to implement and maintain erosion and sedimentation control.

D. Applications for Permits shall be accompanied by a fee, payable to the Borough based upon the estimated cost of the proposed construction as determined by the Floodplain Administrator at such rates and fees that are established by resolution by Borough Council.

Section 3.05 Review of Application by Others

A copy of all plans and applications for any proposed construction or development in any identified floodplain area to be considered for approval may be submitted by the Floodplain Administrator to any other appropriate agencies and/or individuals (e.g. planning commission, municipal engineer, etc.) for review and comment.

Section 3.06 Changes

After the issuance of a Permit by the Floodplain Administrator, no changes of any kind shall be

made to the application, permit or any of the plans, specifications or other documents submitted with the application without the written consent or approval of the Floodplain Administrator. Requests for any such change shall be in writing, and shall be submitted by the applicant to Floodplain Administrator for consideration.

Section 3.07 Placards

In addition to the Permit, the Floodplain Administrator shall issue a placard, or similar document, which shall be displayed on the premises during the time construction is in progress. This placard shall show the number of the Permit, the date of its issuance, and be signed by the Floodplain Administrator.

Section 3.08 Start of Construction

Work on the proposed construction or development shall begin within 180 days after the date of issuance of the development permit. Work shall also be completed within twelve (12) months after the date of issuance of the permit or the permit shall expire unless a time extension is granted, in writing, by the Floodplain Administrator. The issuance of development permit does not refer to the zoning approval.

The actual start of construction means either the first placement of permanent construction of a structure on a site, such as the pouring of 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, 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.

Time extensions shall be granted only if a written request is submitted by the applicant, who sets forth sufficient and reasonable cause for the Floodplain Administrator to approve such a request and the original permit is compliant with the Ordinance & FIRM/FIS in effect at the time the extension is granted.

Section 3.09 Enforcement

- A. Notices. Whenever the Floodplain Administrator or other authorized municipal representative determines that there are reasonable grounds to believe that there has been a violation of any provisions of this Ordinance, or of any regulations adopted pursuant thereto, the Floodplain Administrator shall give notice of such alleged violation as hereinafter provided. Such notice shall:
1. be in writing;
 2. include a statement of the reasons for its issuance;

3. allow a reasonable time not to exceed a period of thirty (30) days for the performance of any act it requires;
 4. be served upon the property owner or his agent as the case may require; provided, however, that such notice or order shall be deemed to have been properly served upon such owner or agent when a copy thereof has been served with such notice by any other method authorized or required by the laws of this State;
 5. contain an outline of remedial actions which, if taken, will effect compliance with the provisions of this Ordinance, or any part thereof, and with the regulations adopted pursuant thereto.
- B. Hearings. Any person affected by any notice which has been issued in connection with the enforcement of any provision of this Ordinance, or of any regulation adopted pursuant thereto, may request and shall be granted a hearing on the matter before the Borough Council provided that such person shall file with the Borough of Christiana Secretary, a written petition requesting such hearing and setting forth a brief statement of the grounds therefore within 10 days after the notice was served. The filing of the request for a hearing shall operate as a stay of the notice and the suspension. Upon receipt of such petition, the Borough of Christiana Secretary shall set a time and place for such hearing and shall give the petitioner written notice thereof. At such hearing the petitioner shall be given an opportunity to be heard and to show why such notice shall be modified or withdrawn. The hearing shall be held at a regularly scheduled Borough Council meeting for the purpose of considering the appeal.
- C. Findings and Order. After such hearing the Borough Council shall make findings as to compliance with the provisions of this Ordinance and regulations issued thereunder and shall issue an order in writing, sustaining, modifying, or withdrawing the notice which shall be served as provided in subsection A of this section.
- D. Record and Appeals. The proceedings at such a hearing, including the findings and decision of the Borough Council and together with a copy of every notice and order related thereto shall be entered as a matter of public record in the Borough of Christiana but the transcript of the proceedings need not be transcribed unless judicial review of the decision is sought as provided by this section. Any person aggrieved by a decision of the Borough of Christiana may seek relief therefrom in any court of competent jurisdiction, as provided by the laws of this Commonwealth.

E. Penalties

Any person, firm or corporation who shall violate any provision of this Ordinance shall, upon conviction thereof, be sentenced to pay a fine of not more than \$300; and/or to imprisonment for a term not to exceed 90 days. Every day that a violation of this Ordinance continues shall constitute a separate offense. In addition to the above penalties all other actions are hereby reserved including an action in equity for the proper enforcement of this

Ordinance. The imposition of a fine or penalty for any violation of, or noncompliance with, this Ordinance shall not excuse the violation or noncompliance or permit it to continue; and all such persons shall be required to correct or remedy such violations and noncompliance within a reasonable time. Any structure or building constructed, reconstructed, enlarged, altered, or relocated in noncompliance with this Ordinance may be declared by the Borough Council to be a public nuisance and abatable as such.

Section 3.10 Appeals

- A. Any person aggrieved by an action or decision of the Zoning Officer, or by any of the requirements of this Ordinance, may appeal to the Zoning Hearing Board. Such appeal must be filed, in writing, within 30 days after the decision or action of the Zoning Officer. Upon receipt of such appeal the Zoning Hearing Board shall set a time and place, at the next regularly scheduled Council meeting, for the purpose of hearing the appeal. Notice of the time and place of the hearing of the appeal shall be given to all parties, at which time they may appear and be heard.
- B. Any person aggrieved by any decision of the Zoning Hearing Board, may seek relief therefrom in any court of competent jurisdiction, as provided by the laws of this Commonwealth.

ARTICLE IV. IDENTIFICATION OF FLOODPLAIN AREAS

Section 4.01 Identification

The identified floodplain area shall be:

- A. any areas of Borough of Christiana, classified as Special Flood Hazard Areas (SFHAs) in the Flood Insurance Study (FIS) and the accompanying Flood Insurance Rate Maps (FIRMs) dated April 5, 2016 and issued by the Federal Emergency Management Agency (FEMA) or the most recent revision thereof, including all digital data developed as part of the Flood Insurance Study.

The above referenced FIS and FIRMs, and any subsequent revisions and amendments are hereby adopted by Borough of Christiana and declared to be a part of this Ordinance.

Section 4.02 Description and Special Requirements of Identified Floodplain Areas

The identified floodplain area shall consist of the following specific areas:

- A. The Floodway Area shall be those areas identified in the FIS and the FIRM as floodway and which represent the channel of a watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without increasing the water surface elevation by more than one (1) foot at any point. This term shall also include floodway areas which have been identified in other available studies or sources of information for those Special Flood Hazard Areas where no floodway has been identified in the FIS and FIRM.

1. Within any floodway area, no encroachments, including fill, new construction, substantial improvements, or other development shall be permitted unless it has been demonstrated through hydrologic and hydraulic analysis performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the Borough during the occurrence of the base flood discharge.
 2. Within any floodway area, no new construction or development shall be allowed, unless the appropriate permit is obtained from the Department of Environmental Protection Regional Office.
- B. The AE Area/District shall be those areas identified as an AE Zone on the FIRM included in the FIS prepared by FEMA for which base flood elevations have been provided.
1. The AE Area adjacent to the floodway shall be those areas identified as an AE Zone on the FIRM included in the FIS prepared by FEMA for which base flood elevations have been provided and a floodway has been delineated.
- C. The A Area/District shall be those areas identified as an A Zone on the FIRM included in the FIS prepared by FEMA and for which no base flood elevations have been provided. For these areas, elevation and floodway information from other Federal, State, or other acceptable sources shall be used when available. Where other acceptable information is not available, the base flood elevation shall be determined by using the elevation of a point on the boundary of the identified floodplain area which is nearest the construction site.

In lieu of the above, the Borough may require the applicant to determine the elevation with hydrologic and hydraulic engineering techniques. Hydrologic and hydraulic analyses shall be undertaken only by professional engineers or others of demonstrated qualifications, who shall certify that the technical methods used correctly reflect currently accepted technical concepts. Studies, analyses, computations, etc., shall be submitted in sufficient detail to allow a thorough technical review by the Borough.

Section 4.03 Changes in Identification of Area

The Identified Floodplain Area may be revised or modified by the Council where studies or information provided by a qualified agency or person documents the need for such revision. However, prior to any such change to the Special Flood Hazard Area, approval must be obtained from FEMA. Additionally, as soon as practicable, but not later than six (6) months after the date such information becomes available, a Borough shall notify FEMA of the changes to the Special Flood Hazard Area by submitting technical or scientific data. See 5.01 (B) for situations where FEMA notification is required.

Section 4.04 Boundary Disputes

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

Section 4.05 Jurisdictional Boundary Changes

Prior to development occurring in areas where annexation or other corporate boundary changes are proposed or have occurred, the Borough shall review flood hazard data affecting the lands subject to boundary changes. The Borough shall adopt and enforce floodplain regulations in areas subject to annexation or corporate boundary changes which meet or exceed those in CFR 44 60.3.

ARTICLE V. TECHNICAL PROVISIONS

Section 5.01 General

A. Alteration or Relocation of Watercourse

1. 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 Borough, and until all required permits or approvals have first been obtained from the Department of Environmental Protection Regional Office.
2. No encroachment, alteration, or improvement of any kind shall be made to any watercourse unless it can be shown that the activity will not reduce or impede the flood carrying capacity of the watercourse in any way.
3. In addition, FEMA and the Pennsylvania Department of Borough and Economic Development, shall be notified prior to any alteration or relocation of any watercourse.

B. When the Borough of Christiana proposes to permit the following encroachments:

- any development that causes a rise in the base flood elevations within the floodway; or
- any development occurring in Zones A1-30 and Zone AE without a designated floodway, which will cause a rise of more than one foot in the base flood elevation; or
- alteration or relocation of a stream (including but not limited to installing culverts and bridges)

the applicant shall (as per 44 CFR Part 65.12):

1. apply to FEMA for conditional approval of such action prior to permitting the encroachments to occur.

2. Upon receipt of the Administrator's conditional approval of map change and prior to approving the proposed encroachments, a Borough shall provide evidence to FEMA of the adoption of floodplain management Parts incorporating the increased base flood elevations and / or revised floodway reflecting the post-project condition.
 3. Upon completion of the proposed encroachments, a Borough shall provide as-built certifications. FEMA will initiate a final map revision upon receipt of such certifications in accordance with 44 CFR Part 67.
- C. 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, Parts and regulations.

Section 5.02 Elevation and Floodproofing Requirements

A. Residential Structures

1. In AE, A1-30, and AH Zones, any new construction or substantial improvement shall have the lowest floor (including basement) elevated up to, or above, the Regulatory Flood Elevation.
2. In A Zones, where there are no Base Flood Elevations specified on the FIRM, any new construction or substantial improvement shall have the lowest floor (including basement) elevated up to, or above, the Regulatory Flood Elevation determined in accordance with Section 4.02.C of this Ordinance.
3. The design and construction standards and specifications contained in the 2009 International Building Code (IBC) and in the 2009 International Residential Code (IRC) or the latest edition thereof adopted by the State of Pennsylvania, and ASCE 24 and 34 PA Code (Chapters 401-405 as amended) shall be utilized, where they are more restrictive.

B. Non-residential Structures

1. In AE, A1-30 and AH Zones, 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 below the Regulatory Flood Elevation:
 - a. is floodproofed so that the structure is watertight with walls substantially impermeable to the passage of water and,
 - b. has structural components with the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy:

2. In A Zones, where no Base Flood Elevations are specified on the FIRM, any new construction or substantial improvement shall have the lowest floor (including basement) elevated or completely floodproofed up to, or above, the Regulatory Flood Elevation determined in accordance with Section 4.02.C of this Ordinance.
3. Any non-residential structure, or part thereof, made watertight below the Regulatory Flood Elevation shall be floodproofed 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 floodproofing shall be accompanied by a statement certified by a registered professional engineer or architect which states that the proposed design and methods of construction are in conformance with the above referenced standards.
4. The design and construction standards and specifications contained in the 2009 International Building Code (IBC) and in the 2009 International Residential Code (IRC) or the latest edition thereof adopted by the State of Pennsylvania, and ASCE 24 and 34 PA Code (Chapters 401-405 as amended) shall be utilized, where they are more restrictive.

C. Space below the lowest floor

1. Basements are prohibited
2. Fully enclosed space below the lowest floor (excluding basements) which will be used solely for the parking of a vehicle, building access, or incidental storage in an area other than a basement, shall be designed and constructed to allow for the automatic entry and exit of flood waters for the purpose of equalizing hydrostatic forces on exterior walls. The term "fully enclosed space" also includes crawl spaces.
3. Designs for meeting this requirement must either be certified by a registered professional engineer or architect, or meet or exceed the following minimum criteria:
 - a. a minimum of two openings having a net total area of not less than one (1) square inch for every square foot of enclosed space.
 - b. the bottom of all openings shall be no higher than one (1) foot above grade.
 - c. openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

D. Historic Structures

Historic structures undergoing repair or rehabilitation that would constitute a substantial improvement as defined in this Ordinance, must comply with all Ordinance requirements that do not preclude the structure's continued designation as a historic structure. Documentation that a specific Ordinance requirement will cause removal of the structure from the National Register of Historic Places or the State Inventory of Historic places must be obtained from the Secretary of the Interior or the State Historic Preservation Officer. Any exemption from Ordinance requirements will be the minimum necessary to preserve the historic character and design of the structure.

Section 5.03 Design and Construction Standards

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

A. Fill

1. 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) horizontal feet unless substantiated data justifying steeper slopes are submitted to, and approved by the Floodplain Administrator; and
- e. be used to the extent to which it does not adversely affect adjacent properties.

B. Drainage Facilities

Storm drainage facilities shall be designed to convey the flow of storm water runoff in a safe and efficient manner. The system shall 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.

C. Water and Sanitary Sewer Facilities and Systems

1. All new or replacement water supply and sanitary sewer facilities and systems shall be located, designed and constructed to minimize or eliminate flood damages and the infiltration of flood waters.
2. Sanitary sewer facilities and systems shall be designed to prevent the discharge of

untreated sewage into flood waters.

3. No part of any on-site waste disposal system shall be located within any identified floodplain area except in strict compliance with all State and local regulations for such systems. If any such system is permitted, it shall be located so as to avoid impairment to it, or contamination from it, during a flood.
4. The design and construction provisions of the UCC and FEMA #348, "Protecting Building Utilities From Flood Damages" and "The International Private Sewage Disposal Code" shall be utilized.

D. Other Utilities

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

E. Streets

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

F. Storage

All materials that are buoyant, flammable, explosive, or in times of flooding, could be injurious to human, animal, or plant life, and not listed in Section 5.04, Development Which May Endanger Human Life, shall be stored at or above the Regulatory Flood Elevation or floodproofed to the maximum extent possible.

G. Placement of Buildings and Structures

All buildings and structures shall be designed, located, and constructed so as to offer the minimum obstruction to the flow of water and shall be designed to have a minimum effect upon the flow and height of flood water.

H. Anchoring

1. All buildings and structures shall be firmly anchored in accordance with accepted engineering practices to prevent flotation, collapse, or lateral movement.
2. All air ducts, large pipes, storage tanks, and other similar objects or components located below the Regulatory Flood Elevation shall be securely anchored or affixed to prevent flotation.

I. Floors, Walls and Ceilings

1. Wood flooring used at or below the Regulatory Flood Elevation shall be installed to accommodate a lateral expansion of the flooring, perpendicular to the flooring

grain without causing structural damage to the building.

2. Plywood used at or below the Regulatory Flood Elevation shall be of a "marine" or "water-resistant" variety.
3. Walls and ceilings at or below the Regulatory Flood Elevation shall be designed and constructed of materials that are "water-resistant" and will withstand inundation.
4. Windows, doors, and other components at or below the Regulatory Flood Elevation shall be made of metal or other "water-resistant" material.

J. Paints and Adhesives

1. Paints and other finishes used at or below the Regulatory Flood Elevation shall be of "marine" or "water-resistant" quality.
2. Adhesives used at or below the Regulatory Flood Elevation shall be of a "marine" or "water-resistant" variety.
3. All wooden components (doors, trim, cabinets, etc.) used at or below the Regulatory Flood Elevation shall be finished with a "marine" or "water-resistant" paint or other finishing material.

K. Electrical Components

1. Electrical distribution panels shall be at least three (3) feet above the base flood elevation.
2. Separate electrical circuits shall serve lower levels and shall be dropped from above.

L. Equipment

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

M. Fuel Supply Systems

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

N. 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 sub-sections of this Ordinance, to the extent that they are more restrictive and supplement the requirements of this Ordinance.

International Building Code (IBC) 2009 or the latest edition thereof adopted by the State of Pennsylvania:

Secs. 801, 1202, 1403, 1603, 1605, 1612, 3402, and Appendix G.

International Residential Building Code (IRC) 2009 or the latest edition thereof adopted by the State of Pennsylvania:

Secs. R104, R105, R109, R322, Appendix E, and Appendix J.

Section 5.04 Development Which May Endanger Human Life

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

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

shall be subject to the provisions of this section, in addition to all other applicable provisions. The following list of materials and substances are considered dangerous to human life:

- Acetone
- Ammonia
- Benzene
- Calcium carbide
- Carbon disulfide
- Celluloid
- Chlorine
- Hydrochloric acid
- Hydrocyanic acid
- Magnesium
- Nitric acid and oxides of nitrogen
- Petroleum products (gasoline, fuel oil, etc.)
- Phosphorus
- Potassium
- Sodium
- Sulphur and sulphur products

- Pesticides (including insecticides, fungicides, and rodenticides)
 - Radioactive substances, insofar as such substances are not otherwise regulated.
- B. Within any Identified Floodplain Area, any new or substantially improved structure of the kind described in Subsection A., above, shall be prohibited within the area measured fifty (50) feet landward from the top-of-bank of any watercourse.
- C. Within any Floodway Area, any structure of the kind described in Subsection A., above, shall be prohibited. Where permitted within any Identified Floodplain Area, any new or substantially improved residential structure of the kind described in Section 5.04 (A), above, shall be elevated to remain completely dry up to at least one and one half (1 ½) feet above base flood elevation and built in accordance with Sections 5.01, 5.02 and 5.03.
- D. Where permitted within any Identified Floodplain Area, any new or substantially improved non-residential structure of the kind described in Section 5.04 (A) above, shall be built in accordance with Sections 5.01, 5.02 and 5.03 including:
1. elevated, or designed and constructed to remain completely dry up to at least one and one half (1 ½) feet above base flood elevation, and
 2. designed to prevent pollution from the structure or activity during the course of a base flood.

Any such structure, or part thereof, that will be built below the Regulatory Flood Elevation shall be designed and constructed in accordance with the standards for completely dry floodproofing contained in the publication "Flood-Proofing Regulations (U.S. Army Corps of Engineers, June 1972 as amended March 1992), or with some other equivalent watertight standard.

Section 5.05 Special Requirements for Subdivisions and Development

All subdivision proposals and development proposals containing at least 50 lots or at least 5 acres, whichever is the lesser, in Identified Floodplain Areas where base flood elevation data are not available, shall be supported by hydrologic and hydraulic engineering analyses that determine base flood elevations and floodway information. The analyses shall be prepared by a licensed professional engineer in a format required by FEMA for a Conditional Letter of Map Revision and Letter of Map Revision. Submittal requirements and processing fees shall be the responsibility of the applicant.

Section 5.06 Special Requirements for Manufactured Homes

- A. All manufactured homes and any additions thereto shall be installed using methods and practices which minimize flood damage. For the purposes of this Ordinance, manufactured homes must be elevated on a permanent foundation so the lowest floor of the manufactured home is at or above 1 1/2 feet over the base flood elevation; be securely anchored to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but not be limited to, the use of over-the-top and frame ties to ground anchors in accordance with such standards as found in the "Standards for the Installation of Mobile

Homes Including Mobile Home Park Requirements" (NEPA No. 501A-1974 (ANSI A119.3-1975)) as amended, for manufactured homes in hurricane zones, or other appropriate standards, such as:

1. Over-the-top ties shall be provided at each of the four corners of the manufactured home, with two additional ties per side at intermediate locations for units 50 feet or more in length, and one additional tie per side for units less than 50 feet in length.
2. Frame ties shall be provided at each corner of the manufactured home, with five additional ties per side at intermediate locations for units 50 feet or more in length, and four additional ties per side for units less than 50 feet in length.
3. All components of the anchoring system shall be capable of carrying a force of 4,800 pounds.

B. 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 manufactured home will be 1 1/2 feet or more above the elevation of the base flood.
2. Adequate surface drainage is provided.
3. Adequate access for a hauler is 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 10 feet apart; reinforcement shall be provided for pilings so that they will extend for six feet or more above the ground level.

C. An evacuation plan indicating alternative vehicular access and escape routes shall be filed with the appropriate municipal officials for manufactured home parks.

D. No manufactured home shall be placed in any designated floodway.

E. Installation of manufactured homes shall be done in accordance with the manufacturers' installation instructions as provided by the manufacturer. Where the applicant cannot provide the above information, the requirements of Appendix E of the 2009 "International Residential Building Code" or the "U.S. Department of Housing and Urban Development's Permanent Foundations for Manufactured Housing," 1984 Edition, draft or latest revision thereto and 34 PA Code Chapter 401-405 shall apply.

F. Consideration shall be given to the installation requirements of the 2009 IBC, and the 2009 IRC or the latest edition thereto adopted by the State of Pennsylvania, and 34 PA Code, as amended where appropriate and/or applicable to units where the manufacturers' standards for anchoring cannot be provided or were not established for the proposed unit(s) installation.

Section 5.07 Special Requirements for Recreational Vehicles

Recreational vehicles shall be prohibited within any Identified Floodplain Area. If a variance is obtained in accordance with the criteria in Article VIII, then the following provisions apply:

- A. Recreational vehicles in Zones A, A1-30, AH and AE must either:
 - 1. be on the site for fewer than 180 consecutive days, and
 - 2. be fully licensed and ready for highway use,
 - or
 - 3. meet the permit requirements for manufactured homes in Section 5.06.

ARTICLE VI. ACTIVITIES REQUIRING SPECIAL PERMITS

Section 6.01 General

In accordance with the administrative regulations promulgated by the Department of Borough and Economic Development to implement the Pennsylvania Flood Plain Management Act, the following activities shall be prohibited within any Identified Floodplain Area unless a Special Permit has been issued by the Borough of Christiana:

- A. The commencement of any of the following activities; or the construction, enlargement, or expansion of any structure used, or intended to be used, for any of the following activities:
 - 1. Hospitals
 - 2. Nursing homes
 - 3. Jails or prisons
- B. The commencement of, or any construction of, a new manufactured home park or manufactured home subdivision, or substantial improvement to an existing manufactured home park or manufactured home subdivision.

Section 6.02 Application Requirements for Special Permits

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

- A. A written request including a completed Permit Application Form.
- B. A small scale map showing the vicinity in which the proposed site is located.
- C. A plan of the entire site, clearly and legibly drawn at a scale of one (1) inch being equal to one hundred (100) feet or less, showing the following:

1. north arrow, scale and date;
2. topography based upon the North American Vertical Datum (NAVD) of 1988, showing existing and proposed contours at intervals of two (2) feet;
3. all property and lot lines including dimensions, and the size of the site expressed in acres or square feet;
4. the location of all existing streets, drives, other access ways, and parking areas, with information concerning widths, pavement types and construction, and elevations;
5. the location of any existing bodies of water or watercourses, buildings, structures and other public or private facilities, including railroad tracks and facilities, and any other natural and man-made features affecting, or affected by, the proposed activity or development;
6. the location of the floodplain boundary line, information and spot elevations concerning the base flood elevation, and information concerning the flow of water including direction and velocities;
7. the location of all proposed buildings, structures, utilities, and any other improvements; and
8. any other information which the Borough considers necessary for adequate review of the application.

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

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

systems, and any other utilities and facilities.

E. The following data and documentation:

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

Section 6.03 Application Review Procedures

Upon receipt of an application for a Special Permit by the Borough of Christiana the following procedures shall apply in addition to those of Article III:

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

Planning Commission by registered or certified mail for its review and recommendations. Copies of the application shall also be forwarded to the Borough of Christiana Planning Commission and Borough of Christiana engineer for review and comment.

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

Section 6.04 Special Technical Requirements

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

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

All hydrologic and hydraulic analyses shall be undertaken only by professional engineers or others of demonstrated qualifications, who shall certify that the technical methods used correctly reflect currently accepted technical concepts. Studies, analyses, computations, etc. shall be submitted in sufficient detail to allow a thorough technical review by the Borough of Christiana and the Department of Community and Economic Development.

ARTICLE VII EXISTING STRUCTURES IN IDENTIFIED FLOODPLAIN AREAS

Section 7.01 Existing Structures

The provisions of this Ordinance do not require any changes or improvements to be made to lawfully existing structures. However, when an improvement is made to any existing structure, the provisions of Section 7.02 shall apply.

Section 7.02 Improvements

The following provisions shall apply whenever any improvement is made to an existing structure located within any Identified Floodplain Area:

- A. No expansion or enlargement of an existing structure shall be allowed within any Identified Floodplain Area unless the effect of the proposed expansion or enlargement on flood heights is fully offset by accompanying improvements.
- B. No expansion or enlargement of an existing structure shall be allowed within any Floodway Area/District that would cause any increase in BFE.
- C. Any modification, alteration, reconstruction, or improvement of any kind to an existing structure to an extent or amount of fifty (50) percent or more of its market value, shall constitute a substantial improvement and shall be undertaken only in full compliance with the provisions of this Ordinance.
- D. The above activity shall also address the requirements of the 34 PA Code, as amended and the 2009 IBC and the 2009 IRC or most recent revision thereof adopted by the State of Pennsylvania.
- E. 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.

ARTICLE VIII VARIANCES

Section 8.01 General

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

Section 8.02 Variance Procedures and Conditions

Requests for variances shall be considered by the Borough of Christiana in accordance with the procedures contained in Section 3.10 and the following:

- A. No variance shall be granted for any construction, development, use, or activity within any Floodway Area/District that would cause any increase in the BFE.
- B. Except for a possible modification of the Regulatory Flood Elevation requirement involved, no variance shall be granted for any of the other requirements pertaining specifically to development regulated by Special Permit (Article VI) or to Development Which May Endanger Human Life (Section 5.04).
- C. If granted, a variance shall involve only the least modification necessary to provide relief.
- D. In granting any variance, the Borough of Christiana shall attach whatever reasonable conditions and safeguards it considers necessary in order to protect the public health, safety, and welfare, and to achieve the objectives of this Ordinance.
- E. Whenever a variance is granted, the Borough of Christiana shall notify the applicant in writing that:
 - 1. The granting of the variance may result in increased premium rates for flood insurance.
 - 2. Such variances may increase the risks to life and property.
- F. In reviewing any request for a variance, the Borough of Christiana shall consider, at a minimum, the following:
 - 1. That there is good and sufficient cause.
 - 2. That failure to grant the variance would result in exceptional hardship to the applicant.
 - 3. That the granting of the variance will
 - a. neither result in an unacceptable or prohibited increase in flood heights, additional threats to public safety, or extraordinary public expense,
 - b. nor create nuisances, cause fraud on, or victimize the public, or conflict

with any other applicable state or local Parts and regulations.

- G. A complete record of all variance requests and related actions shall be maintained by the Borough of Christiana. In addition, a report of all variances granted during the year shall be included in the annual report to the FEMA.

Notwithstanding any of the above, however, all structures shall be designed and constructed so as to have the capability of resisting the one-percent (1%) annual chance flood.

ARTICLE IX. DEFINITIONS

Section 9.01 General

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

A. Specific Definitions

1. Accessory use or structure - a use or structure on the same lot with, and of a nature customarily incidental and subordinate to, the principal use or structure.
2. Base flood - a flood which has a one percent chance of being equaled or exceeded in any given year (also called the "100-year flood" or one-percent (1%) annual chance flood).
3. Base flood discharge - the volume of water resulting from a Base Flood as it passes a given location within a given time, usually expressed in cubic feet per second (cfs).
4. Base flood elevation (BFE) - the elevation shown on the Flood Insurance Rate Map (FIRM) for Zones AE, AH, A1-30 that indicates 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.
5. Basement - any area of the building having its floor below ground level on all sides.
6. Building - a combination of materials to form a permanent structure having walls and a roof. Included shall be all manufactured homes and trailers to be used for human habitation.
7. Development - any man-made change to improved or unimproved real estate, including but not limited to the construction, reconstruction, renovation, repair, expansion, or alteration of buildings or other structures; the placement of manufactured homes; streets, and other paving; utilities; filling, grading and excavation; mining; dredging; drilling operations; storage of equipment or materials; and the subdivision of land.
8. 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 Borough.

9. Expansion to an existing manufactured home park or subdivision – the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).
10. Flood - a temporary inundation of normally dry land areas.
11. Flood Insurance Rate Map (FIRM) - the official map on which the Federal Emergency Management Agency has delineated both the areas of special flood hazards and the risk premium zones applicable to the Borough.
12. Flood Insurance Study (FIS) - the official report provided by the Federal Emergency Management Agency that includes flood profiles, the Flood Insurance Rate Map, the Flood Boundary and Floodway Map, and the water surface elevation of the base flood.
13. 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.
14. 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.
15. 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 cumulatively increasing the water surface elevation more than one foot.
16. Highest Adjacent Grade: The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.
17. Historic structures – 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 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 that have been certified either:
 - i. By an approved state program as determined by the Secretary of the Interior or
 - ii. Directly by the Secretary of the Interior in states without approved programs.
- 18. Identified Floodplain Area- this term is an umbrella term that includes all of the areas within which the Borough has selected to enforce floodplain regulations. It will always include the area identified as the Special Flood Hazard Area on the Flood Insurance Rate Maps and Flood Insurance Study, but may include additional areas identified by the Borough. See Sections 4.01 and 4.02 for the specifics on what areas the Borough has included in the Identified Floodplain Area.
- 19. Lowest floor - the lowest floor of the lowest fully enclosed area (including basement). An unfinished, flood resistant partially enclosed area, used solely for parking of vehicles, building access, and incidental storage, in an area other than a basement area is not considered the lowest floor of a building, provided that such space is not designed and built so that the structure is in violation of the applicable non-elevation design requirements of this Ordinance.
- 20. Manufactured home - a structure, transportable in one or more sections, which is built on a permanent chassis, and is designed for use with or without a permanent foundation when attached to the required utilities. The term includes park trailers, travel trailers, recreational and other similar vehicles which are placed on a site for more than 180 consecutive days.
- 21. Manufactured home park or subdivision – a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.
- 22. Minor repair - the replacement of existing work with equivalent materials for the purpose of its routine maintenance and upkeep, but not including the cutting away of any wall, partition or portion thereof, the removal or cutting of any structural beam or bearing support, or the removal or change of any required means of egress, or rearrangement of parts of a structure affecting the exitway requirements; nor shall minor repairs include addition to, alteration of, replacement or relocation of any standpipe, water supply, sewer, drainage, drain leader, gas, oil, waste, vent, or similar piping, electric wiring, mechanical or other work affecting public health or general safety.
- 23. New construction - structures for which the start of construction commenced on or after the effective start date of this floodplain management Ordinance and includes any subsequent improvements to such structures. Any construction started after April 15, 1981 and before the effective start date of this floodplain management Ordinance is subject to the Ordinance in effect at the time the permit was issued, provided the start of construction was within 180 days of permit issuance.

24. 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 floodplain management regulations adopted by a Borough.
25. Person - an individual, partnership, public or private association or corporation, firm, trust, estate, Borough, governmental unit, public utility or any other legal entity whatsoever, which is recognized by law as the subject of rights and duties.
26. Post-FIRM Structure - is a structure for which construction or substantial improvement occurred after December 31, 1974 or on or after the Borough's initial Flood Insurance Rate Map (FIRM) dated April 15, 1981, whichever is later, and, as such, would be required to be compliant with the regulations of the National Flood Insurance Program.
27. Pre-FIRM Structure - is a structure for which construction or substantial improvement occurred on or before December 31, 1974 or before the Borough's initial Flood Insurance Rate Map (FIRM) dated April 15, 1981, whichever is later, and, as such, would not be required to be compliant with the regulations of the National Flood Insurance Program.
28. Recreational vehicle - a vehicle which is:
 - a. built on a single chassis;
 - b. not more than 400 square feet, measured at the largest horizontal projections;
 - c. designed to be self-propelled or permanently towable by a light-duty truck,
 - d. not designed for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.
29. Regulatory Flood Elevation - the base flood elevation (BFE) or estimated flood height as determined using simplified methods plus a freeboard safety factor of one and one-half (1 ½) feet.
30. Special permit - a special approval which is required for hospitals, nursing homes, jails, and new manufactured home parks/ subdivisions and substantial improvements to such existing parks, when such development is located in all, or a designated portion of a floodplain.
31. Special flood hazard area (SFHA) - means an area in the floodplain subject to a 1 percent or greater chance of flooding in any given year. It is shown on the FIRM as Zone A, AO, A1-A30, AE, A99, or, AH.
32. Start of construction - includes substantial improvement and other proposed new development and means the date the Permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other

improvement was within 180 days after the date of the permit and shall be completed within twelve (12) months after the date of issuance of the permit unless a time extension is granted, in writing, by the Floodplain Administrator. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufacture 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 walkways; nor does it include excavation for a basement, footings, 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.

33. Structure – a walled and roofed building, including a gas or liquid storage tank that is principally above ground, as well as a manufactured home.
34. Subdivision - the division or re-division of a lot, tract, or parcel of land by any means into two or more lots, tracts, parcels or other divisions of land including changes in existing lot lines for the purpose, whether immediate or future, of lease, partition by the court for distribution to heirs, or devisees, transfer of ownership or building or lot development: Provided, however, that the subdivision by lease of land for agricultural purposes into parcels of more than ten acres, not involving any new street or easement of access or any residential dwelling, shall be exempted.
35. 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.
36. Substantial improvement - any reconstruction, rehabilitation, addition, or other improvement of a structure, of which the cost 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 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.
37. Uniform Construction Code (UCC) – The statewide building code adopted by The Pennsylvania General Assembly in 1999 applicable to new construction in all municipalities whether administered by the Borough, 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 State floodplain construction. For coordination purposes, references to the above are made specifically to various sections of the IRC and the IBC.

38. Variance- A grant of relief by a Borough from the terms of a floodplain management regulation.

39. Violation - means the failure of a structure or other development to be fully compliant with the Borough's floodplain management regulations. A 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), (d)(3), (e)(2), (e)(4), or (e)(5) is presumed to be in violation until such time as that documentation is provided.

ARTICLE X. ENACTMENT

Section 10.01 Adoption

This Ordinance shall be effective on _____ and shall remain in force until modified, amended or rescinded by Borough of Christiana, Lancaster County, Pennsylvania.

ENACTED AND ADOPTED by the Council this ____ day of _____,

_____.

ATTEST:

COUNCIL OF THE BOROUGH OF
CHRISTIANA

Borough of Christiana Secretary

By: _____
Council President

APPROVED, this ____ day of _____, _____, by the Mayor of the Borough of Christiana

ATTEST:

Borough of Christiana Secretary

Mayor