

Chapter 58 - FLOODS

Footnotes:

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Cross reference— *Buildings and building regulations, ch. 22; environment, ch. 50; health and sanitation, ch. 62; planning, ch. 82; streets, sidewalks and other public places, ch. 98; subdivisions, app. A; utilities, ch. 114; waterways, ch. 122; zoning, app. B.*

State Law reference— *Flood Damage Reduction Act, Code of Virginia, § 10.1-600 et seq.*

ARTICLE I. - IN GENERAL

Secs. 58-1—58-30. - Reserved.

ARTICLE II. - FLOODPLAIN MANAGEMENT

Footnotes:

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Editor's note— *Ord. No. 11-09, adopted January 18, 2011, amended Article II in its entirety to read as herein set out.*

Former Article II, §§ 58-31—58-37, 58-56—58-59, 58-76, 58-77, 58-96—58-98, 58-116, 58-136—58-138, 58-156—58-158, 58-176 pertained to similar subject matter, and derived from Code 1981, §§ 13.5-1—13.5-7, 13.5-19—13.5-22, 13.5-34, 13.5-35, 13.5-41—13.5-43, 13.5-50, 13.5-67—13.5-73.

DIVISION 1. - GENERALLY

Sec. 58-31. - Purpose.

This article is adopted pursuant to the authority granted to localities by chapter 6 of title 10.1 of the Code of Virginia Flood Protection and Dam Safety (Va. Code § 10.1-600 et. seq.) The purpose of these provisions is to prevent the loss of life and property, the creation of health and safety hazards, the disruption of commerce and governmental services, the extraordinary and unnecessary expenditure of public funds for flood protection and relief, and the impairment of the tax base by:

- (1) Regulating uses, activities and development which, acting alone or in combination with other existing or future uses, activities and development, will cause unacceptable increases in flood heights, velocities and frequencies.
- (2) Restricting or prohibiting certain uses, activities and development from locating within areas subject to flooding.
- (3) Requiring all those uses, activities and developments that do occur in floodprone areas to be protected and floodproofed against flooding and flood damage.

- (4) Protecting individuals from buying lands and structures which are unsuited for intended purposes, because of flood hazards.

(Ord. No. 11-09, 1-18-2011)

Sec. 58-32. - Definitions.

Unless the context specifically indicates otherwise, the meaning of terms used in this article shall be as follows:

Base flood means a flood that, on the average, is likely to occur once every 100 years (i.e., that has a one percent chance of occurring each year, although such a flood may occur in any year).

Base flood elevation means the Federal Emergency Management Agency designated 100-year water surface elevation. The water surface elevation of the base flood in relation to the datum specified on the community's flood insurance rate map. For the purposes of this article, the 100-year flood or one percent annual chance flood.

Basement means any area of the building having its floor sub-grade (below ground level) on all sides.

Crater Regional Building Code Board of Appeals means the board appointed to review appeals made by individuals with regard to decisions of the building official and/or zoning administrator in the interpretation of this article.

Development means any manmade change to improved or unimproved real estate, including but not limited to, buildings or other structures, the placement of manufactured homes, streets and other paving, utilities, filling, grading, excavation, mining, dredging, drilling operations, or storage of equipment or materials.

Elevated building means a non-basement building built to have the lowest floor elevated above the ground level by means of fill, solid foundation perimeter walls, pilings, or columns (posts and piers).

Encroachment means the advance or infringement of uses, plant growth, fill, excavation, buildings, permanent structures or development into a floodplain, which may impede or alter the flow capacity of a floodplain.

Existing manufactured home park/subdivision means 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 September 18, 1990.

Expansion to an existing manufactured home park/subdivision means the preparation of additional sites by 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).

Flood or flooding means:

- (1) A general or temporary condition of partial or complete inundation of normally dry land areas from:
 - (a) The overflow of inland or tidal waters; or,
 - (b) The unusual and rapid accumulation or runoff of surface waters from any source.
 - (c) Mudflows which are proximately caused by flooding as defined in paragraph (1)(b) of this definition and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.
- (2) The collapse or subsistence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in paragraph (1)(a) of this definition.

Flood insurance rate map (FIRM) means an official map of a community, on which the Administrator has delineated both the special hazard areas and the risk premium zones applicable to the community. A FIRM that has been made available digitally is called a digital flood insurance rate map (DFIRM).

Flood insurance study (FIS) means an examination, evaluation and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation and determination of mudflow and/or flood-related erosion hazards.

Floodplain means:

- (1) A relatively flat or low land area adjoining a river, stream or watercourse which is subject to partial or complete inundation; or
- (2) An area subject to the unusual and rapid accumulation or runoff of surface water from any source.

Floodprone area means any land area susceptible to being inundated by water from any source.

Flood proofing means any combination of structural and non-structural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

Floodway means the designated area of the floodplain required to carry and discharge floodwaters of a given magnitude. For the purposes of this article, the floodway shall be capable of accommodating a flood of the 100-year magnitude.

Freeboard means a factor of safety usually expressed in feet above a flood level for purposes of floodplain 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 in the watershed. When a freeboard is included in the height of a structure, the flood insurance premiums will be significantly cheaper.

Highest adjacent grade means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

Historic structure means any structure that is:

- (1) Listed individually in the national register of historic places (a listing maintained by the department of interior) or preliminarily determined by the secretary of the interior as meeting the requirements for individual listing on the national register;
- (2) Certified or preliminarily determined by the secretary of the interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the secretary to qualify as a registered historic district;
- (3) Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the secretary of the interior; or
- (4) Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:
 - (a) By an approved state program as determined by the secretary of the interior; or
 - (b) Directly by the secretary of the interior in states without approved programs.

Lowest floor means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; provided, that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of Federal Code 44CFR § 60.3.

Manufactured home means, for the purposes of this article, 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. For floodplain management purposes the term "manufactured home" also includes park trailers, travel trailers, and other similar vehicles placed on a site for greater than 180 consecutive days.

Manufactured home park/subdivision means a parcel (or contiguous parcels) of land divided into two or more lots for rent or sale for the placement of manufactured homes.

New construction means, for the purposes of determining insurance rates, structures for which the start of construction commenced on or after March 16, 1981 and includes any subsequent improvements to such structures. For floodplain management purposes, the term "new construction" means structures for which the start of construction commenced on or after September 18, 1990, and includes any subsequent improvements to such structures.

New manufactured home park/subdivision means 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 September 18, 1990.

Recreational vehicle means, for purposes of this article, a vehicle which is:

- (1) Built on a single chassis.
- (2) Four hundred square feet or less when measured at the largest horizontal projection.
- (3) Designed to be self-propelled or permanently towable by a light duty truck.
- (4) Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational camping, travel, or seasonal use.

Shallow flooding area means a special flood hazard area with base flood depths from one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable and indeterminate, and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

Special flood hazard area means the land in the floodplain subject to a one percent or greater chance of being flooded in any given year as determined in section 58-56 of this article.

Start of construction means, for other than new construction and substantial improvement, under the Coastal Barriers Resource Act (P.L. 97-384), 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 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 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 on any wall, ceiling, floor, or other structural part of a building, whether or not the alteration affects the external dimensions of the building.

Structure means for flood plain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home.

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

Substantial improvement means 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, however, include either:

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

Violation means the failure of a structure or other development to be fully compliant with the community's flood plain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance as required in this article is presumed to be in violation until such time as that documentation is provided.

Watercourse means a lake, river, creek, stream, wash, channel or other topographic feature on or over which waters flow at least periodically. Watercourse includes specifically designated areas in which substantial flood damage may occur.

(Ord. No. 11-09, 1-18-2011)

Cross reference— Definitions generally, § 1-2.

Sec. 58-33. - General penalty for violation of article.

Any person who fails to comply with any of the requirements or provisions of this article or directions of the director of planning or any authorized employee of the City of Petersburg shall be guilty of a class 1 misdemeanor as provided in section 1-14 of the Code of the City of Petersburg and subject to the penalties therefore.

In addition to the above penalties, all other actions are hereby reserved, including an action in equity for the proper enforcement of this article. The imposition of a fine or penalty for any violation of, or noncompliance with, this article 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 or noncompliances within a

reasonable time. Any structure constructed, reconstructed, enlarged, altered or relocated in noncompliance with this article may be declared by the City of Petersburg to be a public nuisance and abatable as such. Flood insurance may be withheld from structures constructed in violation of this article.

(Ord. No. 11-09, 1-18-2011)

Sec. 58-34. - City disclaimer of liability for flood damages.

The degree of flood protection required by this article is considered reasonable for regulatory purposes, and is based upon scientific and engineering considerations. Floods more severe than the regulatory 100-year flood can and will occur on rare occasions, as flood heights may be increased by natural or manmade causes. The provisions of this article are not intended to imply that lands outside the designated floodplain districts, or development permitted within such districts, will be free from flooding or flood damage. This article shall not create liability on the part of the city, or any officer or employee thereof, for any flood damages that may result under compliance with the provisions of this article or any administrative decision lawfully made pursuant thereto.

(Ord. No. 11-09, 1-18-2011)

Sec. 58-35. - Applicability of article; compliance; abrogations; greater restrictions.

- (a) *Applicability.* The provisions of this article shall apply to all lands within the jurisdiction of the City of Petersburg and identified as being floodprone within this article.
- (b) *Compliance.* No land shall hereafter be developed, and no structure shall be located, relocated, constructed, reconstructed, enlarged, or structurally altered, except in full compliance with the terms and provisions of this article and any other applicable ordinances and regulations which apply to uses within the jurisdiction of this article.
- (c) *Abrogation and greater restrictions.* This article supersedes any article currently in effect in floodprone areas. However, any underlying article shall remain in full force and effect to the extent that the provisions of such article are more restrictive.

(Ord. No. 11-09, 1-18-2011)

Sec. 58-36. - Administration and enforcement; duties of zoning administrator and building inspector.

It shall be the responsibility of the zoning administrator of the city to administer and enforce the provisions of this article; provided, however, that this section shall not be construed to abrogate the authority and responsibility of the building inspector of the city to administer and enforce the provisions of the Virginia Uniform Statewide Building Code, as it applies to development within designated floodplain districts.

(Ord. No. 11-09, 1-18-2011)

Cross reference— Administration, ch. 2.

Sec. 58-37. - Building permits required; applications; required information.

- (a) A building permit to erect, construct, reconstruct, enlarge, extend or structurally alter any building or structure within a floodplain district shall be required, as set forth in the Virginia Uniform Statewide Building Code. Applications for building permits shall be filed with the building inspector of the city; and no such permit shall be issued until the applicant has furnished satisfactory evidence that all necessary permits have been received from those governmental agencies from which approval is required by state and federal law and the zoning administrator has reviewed all sites to assure that they are reasonably safe from flooding. Under no circumstances shall any use, activity, and/or development adversely affect the capacity of the channels or floodways of any watercourse, drainage ditch, or any other drainage facility or system.
- (b) In addition to information required by the building code to be provided in conjunction with building permit applications, the following shall be included when the property involved is located, wholly or partially, within a floodplain district:
 - (1) The elevation of the 100-year flood, and delineation of the 100-year floodplain.
 - (2) The elevation of the lowest floor, including basement.
 - (3) The elevation to which a nonresidential structure is to be floodproofed.
 - (4) Topographic information showing existing and proposed ground elevations.

(Ord. No. 11-09, 1-18-2011)

Secs. 58-38—58-55. - Reserved.

DIVISION 2. - DISTRICT BOUNDARIES

Sec. 58-56. - Established; criteria.

- (a) *Areas included; basis for delineation.* The various floodplain districts shall include areas subject to inundation by waters of the 100-year flood. The basis for the delineation of these districts shall be the flood insurance study (FIS) and the flood insurance rate maps (FIRM) for the City of Petersburg prepared by the Federal Emergency Management Agency, Federal Insurance Administration, dated February 4, 2011, and any subsequent revisions or amendments thereto.
- (b) *Floodway district.* The floodway district is delineated for purposes of this article, using the criterion that a certain area within the floodplain must be capable of carrying the waters of the 100-year flood without increasing the water surface elevation of that flood more than one foot, at

any point. The areas included in this district are specifically defined in table 5 of the flood insurance study referenced in subsection (a) of this section and shown on the accompanying flood boundary and floodway map.

- (c) *Special floodplain district.* The special floodplain district shall be those areas identified as an AE zone on the maps accompanying the flood insurance study for which 100-year flood elevations have been provided.
- (d) *Approximated floodplain district.* The approximated floodplain district shall be those areas identified as an A or A99 zone on the maps accompanying the flood insurance study. In these zones, no detailed flood profiles or elevations are provided, but the 100-year floodplain boundary has been approximated. For these areas, the 100-year flood elevations and floodway information from federal, state, and other acceptable sources shall be used when available. Where the specific 100-year flood elevation cannot be determined for this area using other sources of data, such as the U.S. Army Corps of Engineers Floodplain Information Reports, U.S. Geological Survey Floodprone Quadrangles, etc., then the applicant for the proposed use, development or activity shall determine this elevation in accordance 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 review by the zoning administrator.
- (e) *Shallow flooding district.* The shallow flooding district shall be those areas identified as zone AO or AH on the maps accompanying the flood insurance study.

(Ord. No. 11-09, 1-18-2011)

Sec. 58-57. - Official floodplain map designated.

The boundaries of the floodplain districts are established, as shown on the flood insurance rate map, which is declared to be a part of this article and which shall be kept on file at the office of the clerk of the city council.

(Ord. No. 11-09, 1-18-2011)

Sec. 58-58. - District boundary changes.

The delineation of any of the floodplain districts may be revised by the city council, where natural or manmade changes have occurred or where more detailed studies conducted or undertaken by the U.S. Army Corps of Engineers, or other qualified agency or individual, document the justification for such change. However, prior to any such change, approval must be obtained from the Federal Insurance Administration.

(Ord. No. 11-09, 1-18-2011)

Sec. 58-59. - Interpretations of boundaries; disputes.

Initial interpretations of the boundaries of the floodplain districts shall be made by the zoning administrator. Should a dispute arise concerning the boundaries of any of the districts, the crater regional building code board of appeals shall make the necessary determination. The person questioning or contesting the location of the district boundary shall be given a reasonable opportunity to present his case to the board of appeals and to submit his own technical evidence, if he so desires.

(Ord. No. 11-09, 1-18-2011)

Sec. 58-60. - Submitting technical data.

A community's base flood elevations may increase or decrease resulting from physical changes affecting flooding conditions. As soon as practicable, but not later than six months after the date such information becomes available, a community shall notify the Federal Insurance Administrator of the changes by submitting technical or scientific data. Such a submission is necessary so that upon confirmation of those physical changes affecting flooding conditions, risk premium rates and flood plain management requirements will be based upon current data.

(Ord. No. 11-09, 1-18-2011)

Secs. 58-61—58-75. - Reserved.

DIVISION 3. - DISTRICT USES, ACTIVITIES AND DEVELOPMENT

Subdivision I. - In General

Sec. 58-76. - District provisions, generally.

- (a) All uses, activities and development occurring within any floodplain district shall be undertaken only upon the issuance of a building permit and requisite zoning approval. Such development shall be undertaken only in strict compliance with the provisions of this article, chapter 102 and all other applicable codes and articles, such as the Virginia Uniform Statewide Building Code. Prior to the issuance of any such permit, the zoning administrator shall require all applications to include evidence of compliance with all applicable state and federal laws.
- (b) Under no circumstances shall any use, activity or development adversely affect the capacity of the channels or floodways of any watercourse, drainage ditch, or any other drainage facility or system.
- (c)

New construction and substantial improvements shall be according to the VA USBC, and anchored to prevent flotation, collapse or lateral movement of the structure.

- (d) Manufactured homes shall be anchored to prevent flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This standard shall be in addition to and consistent with applicable state anchoring requirements for resisting wind forces.
- (e) New construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
- (f) New construction or substantial improvements shall be constructed by methods and practices that minimize flood damage.
- (g) Electrical, heating, ventilation, plumbing, air conditioning equipment and other service facilities, including duct work, shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
- (h) New and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system.
- (i) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters.
- (j) On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.

In addition to provisions (a)—(h) above, in all special flood hazard areas, the additional provisions shall apply:

- (k) Prior to any proposed alteration or relocation of any channels or of any watercourse, stream, etc., within this jurisdiction a permit shall be obtained from the U. S. Corps of Engineers, the Virginia Department of Environmental Quality, and the Virginia Marine Resources Commission (a joint permit application is available from any of these organizations). Furthermore, in riverine areas, notification of the proposal shall be given by the applicant to all affected adjacent jurisdictions, the department of conservation and recreation (division of dam safety and floodplain management) and the Federal Insurance Administrator.
- (l) The flood carrying capacity within an altered or relocated portion of any watercourse shall be maintained.

Sec. 58-77. - Specific standards.

In all special flood hazard areas where base flood elevations have been provided in the flood insurance study or generated according [to] [article 4](#), section 4.6, the following provisions shall apply:

- (a) Residential construction:

- (1) New construction or substantial improvement of any residential structure (including manufactured homes) shall have the lowest floor, including basement, elevated to or above the base flood elevation (recommend \geq one foot freeboard).
- (b) Nonresidential construction:
 - (1) New construction or substantial improvement of any commercial, industrial, or nonresidential building (or manufactured home) shall have the lowest floor, including basement, elevated to or above the base flood elevation (recommend \geq one foot freeboard). Buildings located in all A1-30, AE, and AH zones may be flood-proofed in lieu of being elevated provided that all areas of the building components below the elevation corresponding to the BFE plus one foot are water tight with walls substantially impermeable to the passage of water, and use structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. A registered professional engineer or architect shall certify that the standards of this subsection are satisfied. Such certification, including the specific elevation (in relation to mean sea level) to which such structures are floodproofed, shall be maintained by (title of community administrator).
- (c) Elevated buildings: fully enclosed areas, of new construction or substantially improved structures, which are below the regulatory flood protection elevation shall:
 - (1) Not be designed or used for human habitation, but shall only be used for parking of vehicles, building access, or limited storage of maintenance equipment used in connection with the premises. Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door) or limited storage of maintenance equipment (standard exterior door), or entry to the living area (stairway or elevator).
 - (2) Be constructed entirely of flood resistant materials below the regulatory flood protection elevation;
 - (3) Include, in zones A, AO, AE, and A1-30, measures to automatically equalize hydrostatic flood forces on walls by allowing for the entry and exit of floodwaters. To meet this requirement, the openings must either be certified by a professional engineer or architect or meet the following minimum design criteria:
 - a. Provide a minimum of two openings on different sides of each enclosed area subject to flooding.
 - b. The total net area of all openings must be at least one square inch for each square foot of enclosed area subject to flooding.
 - c. If a building has more than one enclosed area, each area must have openings to allow floodwaters to automatically enter and exit.
 - d.

The bottom of all required openings shall be no higher than one foot above the adjacent grade.

- e. Openings may be equipped with screens, louvers, or other opening coverings or devices, provided they permit the automatic flow of floodwaters in both directions.
 - f. Foundation enclosures made of flexible skirting are not considered enclosures for regulatory purposes, and, therefore, do not require openings. Masonry or wood underpinning, regardless of structural status, is considered an enclosure and requires openings as outlined above.
- (d) Manufactured homes, as defined in this article, that are placed or substantially improved on sites:
- (1) Outside of a manufactured home park or subdivision;
 - (2) In a new manufactured home park or subdivision;
 - (3) In an expansion to an existing manufactured home park or subdivision; or
 - (4) In an existing manufactured home park or subdivision on which a manufactured home has incurred substantial damage, as the result of a flood;
- shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to or above the base flood elevation and shall be securely anchored to an adequately anchored foundation system to resist floatation, collapse, and lateral movement.
- (e) Manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision that are not subject to the provisions of subsection (d) of this section shall be elevated so that either:
- (1) The lowest floor of the manufactured home is at or above the base flood elevation; or
 - (2) The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and is securely anchored to an adequately anchored foundation system to resist floatation, collapse, and lateral movement.
- (f) Recreational vehicles placed on sites shall:
- (1) Be on the site for fewer than 180 consecutive days;
 - (2) Be fully licensed and ready for highway use; or
 - (3) Meet the permit requirements for placement and the elevation and anchoring requirements for manufactured homes in subsection (d) or (e) of this section as appropriate.

(Ord. No. 11-09, 1-18-2011)

Sec. 58-78. - Design criteria for utilities and facilities.

- (a) *Sanitary sewer facilities.* All new or replacement sanitary sewer facilities and private package sewage treatment plants (including all pumping stations and collector systems) shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into the floodwaters. In addition, such facilities shall be located and constructed to minimize or eliminate flood damage or impairment.
- (b) *Water facilities.* All new or replacement water facilities shall be designed to minimize or eliminate infiltration of floodwaters into the system, and shall be located and constructed to minimize or eliminate flood damages.
- (c) *Drainage facilities.* All storm drainage facilities shall be designed to convey the flow of surface water, without damage to persons or property. The systems shall ensure drainage away from buildings and on-site waste disposal sites. The city council may require a primarily underground system to accommodate frequent floods and a secondary surface system to accommodate larger, less frequent floods. Drainage facilities shall be designed to prevent the discharge of excess runoff onto adjacent properties.
- (d) *Utilities.* All utilities, such as gas lines and electrical and telephone systems, being placed in floodprone areas shall be located, elevated (where possible) and constructed to minimize the chance of impairment during an occurrence of flooding.
- (e) *Streets and sidewalks.* Streets and sidewalks shall be designed to minimize their potential for increasing and aggravating the levels of flood flow. Drainage openings shall be required to sufficiently discharge flood flows without unduly increasing flood heights.

(Ord. No. 11-09, 1-18-2011)

Secs. 58-79—58-95. - Reserved.

Subdivision II. - Floodway District

Sec. 58-96. - Improvements to offset development.

Encroachments, including fill, new construction, substantial improvements and other developments are prohibited unless certification such as hydrologic and hydraulic analyses (with supporting technical data) is provided to the zoning administrator demonstrating that encroachments shall not result in any increase in flood levels during occurrence of the base flood. 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. Such improvements also shall be approved by all appropriate local and state authorities, as required in section 58-76.

(Ord. No. 11-09, 1-18-2011)

Sec. 58-97. - Manufactured homes, recreational vehicles.

The placement of any manufactured home or recreational vehicle within the floodway district is specifically prohibited.

(Ord. No. 11-09, 1-18-2011)

Sec. 58-98. - Permitted activities; prerequisites.

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

- (1) Agricultural uses, such as general farming, pasture, grazing, outdoor plant nurseries, horticulture, truck farming, forestry, sod farming, and wild crop harvesting.
- (2) Public and private recreational uses and activities, such as parks, day camps, picnic grounds, golf courses, boat launching, and swimming areas, hiking and horseback riding trails, wildlife and nature preserves, game farms, fish hatcheries, skeet game ranges, and hunting and fishing areas.
- (3) Accessory residential uses, such as yard areas, gardens, play areas, and pervious parking and loading areas.
- (4) Accessory industrial and commercial uses, such as yard areas, pervious parking and loading areas, airport landing strips, etc.

(Ord. No. 11-09, 1-18-2011)

Secs. 58-99—58-115. - Reserved.

Subdivision III. - Special Floodplain and Approximated Floodplain Districts

Sec. 58-116. - Standards for the special floodplain district and approximated floodplain district

Until a regulatory floodway is designated, no new construction, substantial improvements, or other development (including fill) shall be permitted within the areas of special flood hazard, designated as zones A1-30 and AE on the flood insurance rate map, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the City of Petersburg.

Development activities in Zones A1-30, AE, and AH, on the City of Petersburg's Flood Insurance Rate Map which increase the water surface elevation of the base flood by more than one foot may be allowed, provided that the applicant first applies - with the City of Petersburg's endorsement - for a conditional flood insurance rate map revision, and receives the approval of the Federal Emergency Management Agency.

No structure shall be located within ten feet of the boundary of the special floodplain district and approximated floodplain district.

(Ord. No. 11-09, 1-18-2011)

Secs. 58-117—58-135. - Reserved.

DIVISION 4. - MODIFICATIONS, EXCEPTIONS; EXISTING STRUCTURES

Subdivision I. - In General

Sec. 58-136. - Conditions.

In accordance with applicable provisions of the Virginia Uniform Statewide Building Code, the crater regional building code board of appeals shall grant modifications to the provisions of the Virginia Uniform Statewide Building Code, pertaining to the manner of construction or materials to be used in the erection, alteration or repair of a building or structure in a floodplain district, only under the following conditions:

- (1) No modification shall be granted for any proposed development within a floodway district that will cause any increase in flood levels during the 100-year flood.
- (2) A modification shall only be granted upon the following:
 - (a) A showing of good and sufficient cause.
 - (b) A determination that failure to grant the modification would result in exceptional hardship to the applicant.
 - (c) A determination that the granting of the modification shall not result in unacceptable or prohibited flood heights, additional threats to public safety, or extraordinary public expense; and will not create nuisances, cause fraud on or victimization of the public, or conflict with existing codes or ordinances.
- (3) A modification shall only be granted upon a determination that the modification is the minimum necessary, considering the flood hazard, to afford relief.

(Ord. No. 11-09, 1-18-2011)

Sec. 58-137. - Notification by board of appeals of increase in cost of flood insurance.

Upon granting a modification to construct a structure below the 100-year flood level, the crater regional building code board of appeals shall notify the applicant, in writing, that the cost of flood insurance will be commensurate with the increased risk resulting from such construction.

(Ord. No. 11-09, 1-18-2011)

Sec. 58-138. - Board of appeals to maintain records.

Records shall be maintained, by the Crater Regional Building Code board of appeals, of all modifications granted, including the justification for each, and shall be included in any reports required by, and submitted to, the emergency management agency.

(Ord. No. 11-09, 1-18-2011)

Secs. 58-139—58-155. - Reserved.

Subdivision II. - Special Exceptions

Sec. 58-156. - Special exceptions to requirements of article; conditions; documentation of affecting factors; authority of building inspector.

- (1) The building inspector of the city shall have the authority to grant special exceptions to the provisions of this article, other than such provisions as pertain to the requirements of the Virginia Statewide Uniform Building Code; provided, that the applicant shall furnish sufficient information and documentation to satisfy the inspector as to the following factors:
 - (a) The danger to life and property due to increased flood heights or velocities caused by encroachments. No special exception shall be granted for any proposed use, development or activity within any floodway district that will cause any increase in the 100-year flood elevation.
 - (b) The danger that materials may be swept on to other lands, or downstream, to the injury of others.
 - (c) The proposed water supply and sanitation systems and the ability of these systems to prevent disease, contamination, and unsanitary conditions.
 - (d) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owners.
 - (e) The importance of the services provided by the proposed facility to the community.
 - (f) The requirements of the facility for a waterfront location.

- (g) The availability of alternative locations, not subject to flooding, for the proposed use.
 - (h) The compatibility of the proposed use with existing development and development anticipated in the foreseeable future.
 - (i) The relationship of the proposed use to the comprehensive plan and floodplain management program for the area.
 - (j) The safety of access to the property, in time of flood, by ordinary and emergency vehicles.
 - (k) The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters expected at the site.
 - (l) 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 special exception is the minimum necessary to preserve the historic character and design of the structure.
- (2) The building inspector may refer any application and accompanying documentation pertaining to any request for a special exception to any engineer or other qualified person or agency for technical assistance in evaluating the proposed project in relation to flood heights and velocities, and the adequacy of the plans for flood protection and other related matters.
- (3) Special exceptions shall be issued only after the building inspector has determined that the granting of such will not result in:
- (a) Unacceptable or prohibited increases in flood heights;
 - (b) Additional threats to public safety;
 - (c) Extraordinary public expense; and will not
 - (d) Create nuisances;
 - (e) Cause fraud or victimization of the public; or
 - (f) Conflict with local laws or ordinances.

A special exception shall only be issued upon the determination that the special exception is the minimum required to provide relief from any hardship to the applicant.

(Ord. No. 11-09, 1-18-2011)

Sec. 58-157. - Notification by building inspector of increase in cost of flood insurance.

Upon issuance of a special exception for any development or activity below the 100-year flood level, the building inspector shall notify the applicant, in writing, that the cost of flood insurance will be commensurate with the increased risk resulting from such development or activity.

(Ord. No. 11-09, 1-18-2011)

Sec. 58-158. - Records to be maintained by building inspector.

Records shall be maintained by the building inspector of all special exceptions granted, including the justification for each, and shall be included in any reports required by, and submitted to, the Federal Emergency Management Agency.

(Ord. No. 11-09, 1-18-2011)

Secs. 58-159—58-175. - Reserved.

Subdivision III. - Existing Structures

Sec. 58-176. - Existing structures in floodplain districts; conditions for continuation.

A structure or use of a structure or premises which lawfully existed before September 18, 1990, but which is not in conformity with these provisions may be continued, subject to the following conditions:

- (1) Existing structures or uses located in floodway districts shall not be expanded or enlarged unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practices that the proposed expansion would not result in any increase in the base flood elevation.
- (2) Any modification, alteration, repair, reconstruction, or improvement of any kind to a structure and/or use located in any flood plain areas to an extent or amount of less than 50 percent of its market value shall conform to the VA USBC.
- (3) The modification, alteration, repair, reconstruction, or improvement of any kind to a structure and/or use, regardless of its location in a floodplain area to an extent or amount of 50 percent or more of its market value shall be undertaken only in full compliance with this article and shall require the entire structure to conform to the VA USBC.
- (4) Uses, or adjuncts thereof, which are, or become, nuisances shall not be permitted to continue.

(Ord. No. 11-09, 1-18-2011)