

**BOARD OF SUPERVISORS  
COUNTY OF NEW KENT  
VIRGINIA**

**O-02-15**

At the regular meeting of the Board of Supervisors of the County of New Kent in the Boardroom of the Administration Building in New Kent, Virginia, on the 20<sup>th</sup> day of May, 2015:

Present:	Vote:
W. R. Davis, Jr.	Aye
Thomas W. Evelyn	Aye
James H. Burrell	Aye
Ron Stiers	Nay
C. Thomas Tiller	Aye

Motion was made by Mr. Davis, which carried 4: 1, to adopt the following ordinance:

**AN ORDINANCE REPEALING  
CHAPTER 98, ARTICLE II, SECTION 57 “FMO, FLOODPLAIN MANAGEMENT  
OVERLAY DISTRICT” AND ESTABLISHING CHAPTER 18, ARTICLE IV  
“FLOODPLAIN DISTRICTS” TO THE NEW KENT COUNTY CODE OF  
ORDINANCES**

**WHEREAS**, the Federal Emergency Management Agency is in the process of updating floodplain maps throughout the Commonwealth of Virginia; and

**WHEREAS**, the Virginia Department of Conservation and Recreation, Dam Safety and Floodplain program has promulgated guidance for Local Floodplain Ordinances in Virginia; and

**WHEREAS**, localities are tasked with ensuring that the local floodplain ordinance reflects that new maps and the guidance on Local Floodplain Ordinances; and

**WHEREAS**, the Board of Supervisors desires to protect the health, safety, welfare, and property of New Kent County residents and businesses within the County;

**NOW THEREFORE BE IT ORDAINED** that the New Kent County Code Section 98-57 be repealed and Chapter 18, Article IV be established.

~~Sec. 98-57. FMO, floodplain management overlay district.~~

(a)

~~*Statement of intent.* In accordance with the objectives of the comprehensive plan, these regulations are intended to ensure the health, safety and general welfare of the public by ensuring that inhabitants and property within the areas designated as special flood hazard areas are safe from damage due to flooding and that development actions will not endanger others. This section complies with the requirements of the National Flood Insurance Program (44 CFR 60.3 et seq.) administered by the Federal Emergency Management Agency (FEMA) and is necessary to ensure that all property owners within the county are eligible for participation in the National Flood Insurance Program regular program and thereby able to secure such insurance at nominal rates. Additional requirements are provided in order for the county to participate in the National Flood Insurance Program Community Rating System (CRS). The degree of flood protection sought by the provisions of these regulations is for reasonable regulatory purposes and is based on acceptable engineering methods of study. Larger floods may occur on rare occasions. Flood heights may be increased by man-made or natural causes, such as ice jams and bridge openings restricted by debris or storms of exceptional size, intensity or duration. These regulations do not imply that districts outside the floodplain management overlay district or that land uses permitted within such district will be free from flooding or flood damage.~~

(b)

~~*Applicability:*~~

(1)

~~The special provisions established in this section shall apply to the following areas:~~

~~a.~~

~~Areas designated as being within the 100-year floodplain by the flood insurance study and as delineated on the flood insurance rate map (FIRM) dated 25 September 2009, or as subsequently may be amended, as Zone A or Zone AE. A copy of the flood insurance study and accompanying maps shall be on file in the offices of the zoning administrator and building official and are available digitally in the county's geographic information system.~~

~~b.~~

~~Such other areas as may be determined by the zoning administrator, through drainage and hydrology studies, to be essential to the alleviation of potential flood damage caused by the 100-year flood and for which the county has requested amendment or revision of the flood insurance rate map.~~

e.

~~Where the specific 100-year flood elevation cannot be determined for an area by using available sources of data, then the applicant for the proposed use, development and/or activity shall determine this elevation to the satisfaction of the zoning administrator 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 consider full development of the watershed and shall be submitted in sufficient detail to allow a thorough review by the county. Where flood elevations are provided by the federal insurance administrator, these elevations shall not be changed except with FEMA approval.~~

(2)

~~These special provisions shall supplement the regulations of the zoning district within which a subject property is located. The floodplain districts described herein shall be overlays to the existing underlying zoning districts.~~

(3)

~~Where these regulations are at variance with the general regulations of this chapter, the specific regulations of the zoning district within which the property is located, or other provisions of this Code, the most restrictive regulation shall apply.~~

(4)

~~Any changes to the data contained in either the flood insurance study or the flood insurance rate map as a result of natural or man-made conditions or subsequent study and analysis shall require the approval of the federal insurance administrator prior to implementation. Evidence of such approval shall require the filing with the zoning administrator of one of the following:~~

a.

~~Letter of map amendment (LOMA).~~

b.

~~Letter of map revision (LOMR).~~

c.

~~Physical map revision.~~

(5)

~~In all cases, the burden of proof shall be on the applicant requesting a map or data change.~~

(6)

~~No land shall hereafter be developed and no structure shall be located, relocated, constructed, reconstructed, enlarged, or structurally altered within the floodplain management overlay district except in full compliance with the terms and provisions of this section. All uses, activities, and development occurring within any floodplain district shall be undertaken only in strict compliance with the provisions of this section and all other applicable codes and ordinances, such as the Virginia Uniform Statewide Building Code, the subdivision ordinance (chapter 91), and other applicable state and federal laws. All other provisions of this chapter notwithstanding, a building permit is required to locate, relocate, construct, reconstruct, enlarge, or structurally alter any structure within the FMO district.~~

(7)

~~All applications for development and building permits in the FMO district shall incorporate the following information:~~

~~a.~~

~~The elevation of structures including the elevation of the lowest floor (including basement);~~

~~b.~~

~~The type and method for flood proofing of nonresidential structures and the elevation to which the structure will be floodproofed;~~

~~c.~~

~~The elevation of the 100-year flood plain;~~

~~d.~~

~~Topographic information showing existing and proposed ground elevations.~~

(8)

~~Elevation certificates shall be provided to the building official by the developer for all development within the FMO.~~

(9)

~~No development shall be permitted in the FMO unless it has been demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, including fill, will not increase the water surface elevation of the base flood more than one foot at any point within the community.~~

(e)

~~Definitions. For the purposes of this section and interpreting the flood insurance study, the following terms shall have the following meanings:~~

~~*Base flood.* The flood having a one percent chance of being equaled or exceeded in any given year. Also referred to as the 100-year flood.~~

~~*Base flood elevation.* The elevation in feet of the 100-year flood level as shown on the flood insurance rate map (FIRM) published by the National Flood Insurance Program and the Federal Emergency Management Agency.~~

~~*Basement.* As used in this section, a basement shall be defined as any part of any structure where the floor is below ground level on all sides.~~

~~*Channel.* A perceptible natural or artificial waterway which periodically or continuously contains moving water confined to a definite bed and banks.~~

~~*Development.* Any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, and the storage of materials and equipment.~~

~~*Elevated building.* 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.* The advance or infringement of uses, plant growth, fills, excavation, buildings, permanent structures or development into a floodplain, which may impede or alter the flow capacity of a floodplain.~~

~~*Flood or flooding.*~~

~~a:~~

~~A general and temporary condition of partial or complete inundation of normally dry land areas from:~~

~~i:~~

~~Overflow of inland or tidal waters; or~~

~~ii:~~

~~The unusual and rapid accumulation or run-off of surface waters from any source; or~~

~~b:~~

~~The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by water 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 a flash flood or by some similarly unusual and unforeseeable event which results in flooding as defined above.~~

~~*Flood, 100-year.* A flood level with a one percent or greater chance of being equaled or exceeded in any year. Also referred to as base flood.~~

*Flood insurance rate map (FIRM).* The flood insurance rate map is prepared under the direction of the Federal Emergency Management Agency and illustrates the extent of flood hazards in a community by depicting flood risk zones and special flood hazard area and is used to determine which structures must purchase flood insurance.

*Floodplain.* Any land area susceptible to being inundated by water from any source. Also referred to as flood-prone areas. Floodplain areas are generally adjacent to a river, stream, bay, lake, watercourse, or storm drainage facility.

*Floodplain management area.* A land area located within a special flood hazard zone or which has been designated by the county and to which the provisions of this section apply.

*Floodproof.* A construction method designed to ensure that all parts of a structure or facility located below the base flood elevation are watertight with walls impermeable to the passage of water and with structural components having the capability of withstanding hydrostatic and hydrodynamic loads and the effects of buoyancy.

*Floodway.* That portion of the floodplain management area comprised of the channel of a river or other watercourse and the adjacent land areas that must be kept free from obstruction or impairment in order to carry the discharge of the base flood without cumulatively increasing flood levels or areas inundated.

*Freeboard.* 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.

*Highest adjacent grade.* The highest natural elevation of the ground surface prior to commencing clearing, grading or construction next to the proposed walls of a structure.

*Historic structure.* Any structure that is:

a.

Listed individually in the National Register of Historic Places (a listing maintained by the department of interior) or preliminarily determined by the secretary of the interior as meeting the requirements for individual listing on the national register;

b.

Certified or preliminarily determined by the secretary of the interior as contributing to the historical significance of a registered historic district or a

district preliminarily determined by the secretary to qualify as a registered historic district;

e.

Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the secretary of the interior; or

d.

Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either

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.

*Lowest floor.* 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 44 CFR § 60.3.

*Manufactured home.* The provisions of section 98-2, Definitions and rules of construction, of this chapter notwithstanding, for purposes of this section, a manufactured home shall be defined as 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 connected to the required utilities. Also included within this definition shall be park trailers, travel trailers, and other similar vehicles placed on a site for more than 180 consecutive days.

*Mean sea level.* National Geodetic Vertical Datum (NGVD) of 1988 to which all elevations on the FIRM and within the flood insurance study dated September 25, 2009, are referenced.

*New construction.* For the purposes of determining insurance rates, structures for which the "start of construction" commenced on or after December 5, 1990, and includes any subsequent improvements to such structures. For floodplain management purposes, new construction means structures for which start of construction commenced on or after the effective date of a floodplain management regulation adopted by a community and includes any subsequent improvements to such structures.

*Recreational vehicle.* A vehicle which is:

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

*Shallow flooding area.* 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 zone.* The land in the floodplain subject to a one percent or greater chance of being flooded in any given year. Special flood hazard areas are delineated into insurance risk and rate classifications on the flood insurance rate map (FIRM) published by the Federal Emergency Management Agency (FEMA) and include the following zones and criteria:

- a. *Zone A.* Areas subject to inundation by the base flood where detailed analyses have not been performed and base flood elevations are not shown.
- b. *Zone AE.* Areas subject to inundation by the base flood as determined by detailed methods with base flood elevations shown within each area.
- c. *Zone X.* Areas located above the base flood boundary and having moderate or minimal flood hazards.

*Start of construction.* The date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, substantial improvement 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 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 the construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

*Structure.* For flood plain management purposes, a structure is a walled and roofed building, including a gas or liquid storage tank, which is principally above ground, as well as a manufactured home. For flood plain management purposes, structures do not include piers, boathouses bulkheads or similar construction at the edge of or over the water.

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

*Substantial improvement.* Any repair, reconstruction, rehabilitation, addition, or improvement of a structure, the cost of which equals or exceeds fifty 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:

a.

Any alteration of an "historic structure," provided that the alteration will not preclude the structure's continued designation as an "historic structure."

b.

Any project for improvement of a structure to correct existing violations of Virginia or county 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.

*Watercourse.* A natural or artificial channel for the passage of running water fed from natural sources in a definite channel and discharging into some stream or body of water.

(c)

*Use regulations.* Permitted uses, specially permitted uses, accessory uses, dimensional standards, and special requirements shall be as established by the underlying zoning district, except as specifically modified herein.

(1)

The following uses shall be specifically prohibited within the FMO district:

a.

Landfills, junkyards, outdoor storage of inoperative vehicles.

b.

Manufactured homes.

c.

Manufacture, bulk storage, transformation or distribution of petroleum, chemical or asphalt products or any hazardous materials as defined in either or both of the following:

i.

Superfund Amendment and Reauthorization Act of 1986.

ii.

Identification and listing of hazardous wastes, 40 C.F.R. § 261 (1987), as amended.

The following products shall be specifically included:

▲

Oil and oil products including petrochemicals.

▲

Radioactive materials.

▲

Any material transported or stored in large commercial quantities (such as 55 gallon drums) which is a very soluble acid or base, causes abnormal growth of an organ or organism, or is highly biodegradable, exerting a strong oxygen demand.

▲

Biologically accumulative poisons.

▲

Substances containing the active ingredients of economic poisons that are or were ever registered in accordance with the provisions of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended (7 USC 135 et seq.).

▲

Substances highly lethal to mammalian, avian, or aquatic life.

d.

Storage or land application of industrial wastes.

e.

Outdoor storage of equipment, materials, or supplies which are buoyant, flammable, or explosive. This shall not however preclude the storage of boats and watercraft.

f.

Outdoor storage of recreational vehicles other than boats and watercraft except when such recreational vehicles are:

- i. ~~On the site for fewer than 180 consecutive days; and~~
- ii. ~~Fully licensed and ready for highway use. A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.~~

~~(2)~~

~~The nonconforming use provisions of this chapter notwithstanding, no expansion of any of the above uses located within the FMO district shall be permitted; neither shall reconstruction of such uses occur if substantially damaged by a flood event.~~

~~(e)~~

~~*Special standards and requirements.*~~

~~(1)~~

~~Standards for subdivisions. Preliminary plans, development plans and final subdivision plats of all properties, all or part of which are located within any special flood hazard area, must be prepared and sealed by a licensed surveyor or engineer and shall demonstrate that the proposal is consistent with the need to minimize flood damage within the flood-prone area. The following information, in addition to that which would otherwise be required, shall be provided on the respective plans:~~

~~a.~~

~~The special flood hazard boundary, as depicted on the FIRM and the flood hazard zone classification(s) shall be depicted on preliminary plans, development plans, and final plats. Where the base flood elevation contains a fraction of a foot, it shall be rounded up to the next higher whole foot.~~

~~b.~~

~~Development/construction plans shall provide topographical information for the site at a maximum contour interval of two feet, provided, however, that a one foot contour interval for elevations two feet lesser and two feet greater than the 100-year flood boundary shall be shown. Where the base flood elevation contains a fraction of a foot, it shall be rounded up to the next higher whole foot.~~

~~c.~~

~~The elevation of the finished surface of the ground at each corner of each existing building located within any flood hazard zone shall be shown on development plans and final plats.~~

- d. Detailed information demonstrating that adequate drainage is provided to reduce exposure to flood hazards.

(2)

~~Standards for site plans. Site plans for development of all properties, all or part of which are located within any special flood hazard area, must be prepared and sealed by a licensed surveyor or engineer and include the following information in addition to that which would otherwise be required:~~

a.

~~The 100-year flood boundary, as depicted on the FIRM and the flood hazard zone classification(s). Where the base flood elevation contains a fraction of a foot, it shall be rounded up to the next higher whole foot.~~

b.

~~Topographical information for the site provided at a maximum contour interval of two feet, provided, however, that a one foot contour interval shall be required for elevations two feet lesser and two feet greater than the 100-year flood boundary and the boundary itself shall be shown. Where the base flood elevation contains a fraction of a foot, it shall be rounded up to the next higher whole foot.~~

c.

~~The elevation of the finished surface of the ground at each corner of each existing or proposed building location within any flood hazard zone.~~

d.

~~The elevation of the bottom of the lowest horizontal structural member of the lowest floor in all proposed buildings or additions to existing buildings.~~

(3)

~~Standards for utilities. All new or replacement utilities, water filtration, and wastewater treatment facilities, installed in the floodplain management area shall be designed to prevent the infiltration of floodwaters into or discharge from such utilities and to minimize the potential for flood damage. Where private waste disposal systems are to be installed or replaced, they shall be installed so that they cannot be permanently contaminated or impaired by a base flood.~~

(4)

~~Standards for streets and roads.~~

a.

~~New public or private streets shall not traverse floodplain management areas provided, however, that where an existing street within a floodplain management area is to be extended, the zoning administrator may approve street extensions or parts thereof, but only where said extensions will not contribute to increased flood levels or place additional properties in jeopardy of flooding.~~

b.

~~The centerline of all new streets within 1,000 feet of a special flood hazard area boundary shall be at an elevation 2.0 feet above base flood elevation or higher.~~

(5)

~~Standards for filling of floodplain areas.~~

a.

~~Where fill within the FMO district is proposed, the following minimum standards shall apply:~~

i.

~~Fill areas shall extend laterally a minimum of 15 feet beyond building lines from all points.~~

ii.

~~Fill material shall consist only of soil and small rock materials which can pass through a three-inch opening ASTM standard sieve. Organic materials, including tree stumps and asphalt rubble, shall be prohibited as fill material.~~

iii.

~~Fill areas shall be compacted as may be specified by the zoning administrator in consultation with the director of public utilities to provide necessary permeability and resistance to erosion, scouring, or settling.~~

iv.

~~Fill areas shall be graded to a finished slope of no steeper than one vertical to three horizontal, unless substantiated data, certified by a licensed engineer, which justifies steeper slopes is submitted to and approved by the zoning administrator in consultation with the director of public utilities.~~

v.

~~The zoning administrator in consultation with the director of public utilities shall impose any additional standards deemed necessary to ensure the safety of the community and properties from additional flood hazard potentials caused by filling within the floodplain management area.~~

b.

Filling or any other encroachment into any channel within the floodplain management area which would, as determined by the zoning administrator in consultation with the director of public utilities, obstruct or unduly restrict water flows through the channel and, in so doing, increase the potential for flood damage shall be prohibited.

c.

The filling of any portion of property solely to increase the elevation of the land to meet minimum lot area requirements and thereby create a buildable lot for residential construction within the floodplain management area shall be prohibited.

d.

These standards may be waived individually by the zoning administrator in consultation with the director of public utilities, upon the recommendation of the wetlands board for approved parks, recreation facilities, shoreline erosion control and beach maintenance projects where sufficient data is presented justifying the project and where it is demonstrated that such actions will not increase flood levels on any properties.

(6)

Standards for watercourse modification. Watercourses shall not be altered or relocated except upon the presentation of data, certified by a licensed engineer, that the flood-carrying capacity of such a modified watercourse will be at least equal to that prior to modification. Prior to any proposed alteration of any channels or of any watercourse or stream within the FMO district, necessary permits shall be obtained from the Army Corps of Engineers, the Virginia Department of Environmental Quality, and the Virginia Marine Resources Commission. 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 Administration.

(7)

Construction standards for properties in Zone AE. All new construction or substantial improvement to structures in Zone AE of the floodplain management area shall occur in accordance with the applicable floodplain construction provisions for Zone AE contained in the Virginia Uniform Statewide Building Code. The building official must be satisfied that all applicable provisions have been complied with prior to issuing building permits or temporary or permanent certificates of occupancy. In addition, the following standards shall apply:

- a. ~~The lowest floor of any structure, including basements, shall be elevated to at least 1½ feet above the base flood elevation or, in the case of nonresidential structures, floodproofed to at least that level.~~
- b. ~~All new and replacement electrical equipment, and heating, ventilating, air conditioning and other service facilities shall be installed at least three feet above the base flood elevation or otherwise designed and located so as to prevent water from entering or accumulating within the system.~~
- c. ~~All electrical distribution panels shall be installed at least five feet above the base flood elevation or otherwise designed and located so as to prevent inundation.~~
- d. ~~No new construction, substantial improvements, or other development (including fill) shall be permitted unless it is demonstrated through engineering analyses 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 community.~~

(8)

~~Construction standards for properties in Zone A.~~

- a. ~~All new construction or substantial improvements to structures in Zone A must comply with all standards applicable to Zone AE contained in this section and the floodplain construction provisions of the Virginia Uniform Statewide Building Code. In addition, the owner and developer of such property shall provide to the zoning administrator sufficiently detailed hydrologic and hydraulic analyses, certified by a licensed engineer, to determine the base flood elevation for the property and the location of the special flood hazard area boundary. Upon approval by the zoning administrator, copies of all such detailed analyses shall be transmitted within six months of submission to the federal insurance administrator for incorporation into the FIRM.~~
- b. ~~For new single-family residential construction, in lieu of conducting sufficiently detailed hydrologic and hydraulic analyses to determine~~

~~the base flood elevation for the property and the location of the special flood hazard area boundary, the lowest horizontal structural member of the lowest floor of the residential structure may be elevated three feet above the highest adjacent grade.~~

(9)

~~Construction standards for elevated buildings in all zones. Enclosed areas, of new construction or substantially improved structures, which are below the regulatory flood protection elevation shall:~~

~~a.~~

~~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). The interior portion of such enclosed area shall not be partitioned or finished into separate rooms, except to enclose storage areas;~~

~~b.~~

~~Be constructed entirely of flood-resistant materials below the regulatory flood protection elevation;~~

~~c.~~

~~Include, in Zones A and AE, 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:~~

~~i.~~

~~Provide a minimum of two openings on different sides of each enclosed area subject to flooding.~~

~~ii.~~

~~The total net area of all openings must be at least one square inch for each square foot of enclosed area subject to flooding.~~

~~iii.~~

~~If a building has more than one enclosed area, each area must have openings to allow floodwaters to automatically enter and exit.~~

~~iv.~~

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

- d. Openings may be equipped with screens, louvers, or other opening coverings or devices, provided they permit the automatic flow of floodwaters in both directions.
- e. 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.

(10)

Construction standards for floodproofed buildings. Floodproofing may only be utilized for construction of nonresidential structures when elevating the structure is not an option. When floodproofing is used, the following conditions apply:

- a. Floodproofing requirements and documentation shall extend to attendant utility and sanitary facilities.
- b. A registered professional engineer or architect shall develop and/or review structural design, specifications, and plans for the construction, and shall certify that the design and methods of construction are in accordance with accepted standards of practice for floodproofed structures.

(11)

Construction standards for existing buildings. A structure or use of a structure or premises which lawfully existed before the enactment of these provisions, but which is not in conformity with these provisions, may be continued subject to the following conditions:

- a. Existing structures in the floodway area 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.
- b. 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.

~~G:~~

~~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 ordinance and shall require the entire structure to conform to the VA USBC.~~

~~(12)~~

~~Under no circumstances shall any use, activity, and/or development adversely affect the capacity of the channels or floodway of any watercourse, drainage ditch, or any other drainage system or facility.~~

~~(13)~~

~~The building official shall maintain complete records of all structures constructed within the FMO, including elevation certificate, floodproofing documentation and all engineering reports and analyses related to hydrology and hydraulics that may have been submitted with construction or as-built plans.~~

~~(f)~~

~~*Variances.* Variances from the provisions of this section may be granted by the board of zoning appeals in accordance with the provisions of article VI of this chapter.~~

~~(1)~~

~~All applicants who apply for a variance from the provisions of the FMO district shall be notified, in writing, that the issuance of a variance to construct a structure below the base flood level may result in increased premium rates for flood insurance and that such construction may increase risks to life and property, both their own and others. Copies of this notification shall be transmitted, along with all other records of variances from the provisions of the floodplain management area, to the federal insurance administrator at least biannually.~~

~~(2)~~

~~In granting variances from the provisions of this section, the board of zoning appeals shall require a showing of good and sufficient cause, shall satisfy all relevant factors and procedures specified in other sections of the zoning ordinance and shall find that the variance is the minimum necessary to afford relief, that a failure to grant the variance will result in substantial hardship to the applicant and will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with local laws or ordinances. Furthermore, the board shall consider the following additional factors:~~

~~a:~~

~~The danger to life and property due to increased flood heights or velocities caused by encroachments. No variance 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.~~

~~Potential or real threats to public health.~~

~~c.~~

~~The proposed water supply and sanitation systems and the ability of these systems to prevent disease, contamination and unsanitary conditions.~~

~~d.~~

~~The danger that materials may be swept onto other lands or downstream to the injury of others.~~

~~e.~~

~~The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owners.~~

~~f.~~

~~The importance of the services provided by the proposed facility to the community.~~

~~g.~~

~~The requirements of the facility for a waterfront location.~~

~~h.~~

~~The availability of alternative locations not subject to flooding for the proposed use.~~

~~i.~~

~~The compatibility of the proposed use with existing development and development anticipated in the foreseeable future.~~

~~j.~~

~~The relationship of the proposed use to the comprehensive plan and floodplain management program for the area.~~

~~k.~~

~~The safety of access by ordinary and emergency vehicles to the property in time of flood.~~

~~l.~~

~~The expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters expected at the site.~~

~~m.~~

~~The repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the~~

structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.

n.

Such other factors which are relevant to the purposes of this section.

(3)

The board of zoning appeals may refer any application and accompanying documentation pertaining to any request for a variance 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. The costs of such technical assistance shall be invoiced to the applicant who shall reimburse the county within 15 days of the presentation of an invoice. Failure to promptly pay invoiced amounts shall result in all review of the application to cease at which time the application shall be returned to the applicant. Reapplication shall require a new fee as well as settlement of all prior debts to the county.

(4)

The county shall maintain a record of all variance applications and the action taken on each including the findings made and the justification provided for those requests granted. The county shall report all variances issued to the federal insurance administrator.

(g)

*Penalties.* Violations of the provisions of the FMO district are violations of the zoning ordinance and shall be treated in the same manner as other violations of the zoning ordinance.

(1)

Any person, whether as principal, agent, employee or otherwise, violating, causing or permitting the violation of any of the provisions of this chapter shall be guilty of a misdemeanor punishable by a fine of not less than \$100.00, nor more than \$1,000.00. If the violation is uncorrected at the time of conviction, the court shall order the violator to abate or remedy the violation of the compliance with this chapter, within a time period established by the court. Failure to remove or abate a zoning violation within the specified time period shall constitute a separate misdemeanor offense punishable by a fine of not less than \$100.00, nor more than \$1,000.00, and any such failure during any succeeding ten-day period shall constitute a separate misdemeanor offense for each ten-day period punishable by a fine of not less than \$100.00, nor more than \$1,500.00.

(2)

Nothing in this section shall be construed as to prohibit the zoning administrator from applying to the appropriate court of the county to restrain, correct or abate any violation of this chapter by injunction or other appropriate proceedings.

*(Ord. No. O-15-09, 8-10-2009)*

*Editor's note—*

Ord. No. O-15-09, adopted Aug. 10, 2009, repealed ~~§ 98-57~~ and enacted a new section as set out herein. The former ~~§ 98-57~~ pertained to floodplain and derived from § 9-62 of the 1999 Code and Ord. No. O-15-08(R2), adopted Jan. 12, 2009.

### ~~Sec. 98-58. Reserved.~~

*Editor's note—*

Ord. No. O-15-09, adopted Aug. 10, 2009, repealed ~~§ 98-58~~ which pertained to establishment of zoning districts and derived from § 9-62.1 of the 1999 Code and Ord. No. O-15-08(R2), adopted Jan. 12, 2009.

### ~~Sec. 98-59. Reserved.~~

*Editor's note—*

Ord. No. O-15-09, adopted Aug. 10, 2009, repealed ~~§ 98-59~~ which pertained to district provisions and derived from § 9-62.2 of the 1999 Code and Ord. No. O-15-08(R2), adopted Jan. 12, 2009.

### ~~Sec. 98-60. Reserved.~~

*Editor's note—*

Ord. No. O-15-09, adopted Aug. 10, 2009, repealed ~~§ 98-60~~ which pertained to design criteria for utilities and facilities and derived from § 9-62.3 of the 1999 Code and Ord. No. O-15-08(R2), adopted Jan. 12, 2009.

### ~~Sec. 98-61. Land uses by conditional use permit.~~

If a use is not permitted under section 98-62, a conditional use permit application may be submitted in accordance with article XIX of this chapter.

*(Ord. No. O-02-14, 1-13-2014)*

*Editor's note—*

Prior to the reenactment of ~~§ 98-61~~ by Ord. No. O-02-14, said section was repealed by Ord. No. O-15-09, adopted Aug. 10, 2009. The former ~~§ 98-61~~ pertained to existing structures in floodplain districts and derived from § 9-62.4 of the 1999 Code and Ord. No. O-15-08(R2), adopted Jan. 12, 2009.

## Chapter 18 COMMUNITY DEVELOPMENT

### ARTICLE IV FLOODPLAIN

#### DIVISION I - DEFINITIONS

##### Sec. 18-233 Definitions

- A. **Appurtenant or accessory structure** – Accessory structures not to exceed two hundred sq. ft. (200).
- B. **Base Flood** – The flood having a one percent (1%) chance of being equaled or exceeded in any given year.
- C. **Base Flood elevation** – The water surface elevations of the base flood, that is, the flood level that has a one percent (1%) or greater chance of occurrence in any given year. 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 ordinance, the base flood is the one percent (1%) annual chance flood.
- D. **Basement** – Any area of the building having its floor sub-grade (below ground level) on all sides.
- E. **Board of Zoning Appeals** – The board appointed to review appeals made by individuals with regard to decisions of the Zoning Administrator in the interpretation of this ordinance. (See Chapter 98, Article XXVI Board of Zoning Appeals)
- F. **Coastal A Zone** – Flood hazard areas that have been delineated as subject to wave heights between one (1) and one-half (1.5) feet and three (3) feet.
- G. **Development** – Any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.
- H. **Elevated building** – A non-basement building built to have the lowest floor elevated above the ground level by means of solid foundation perimeter walls, pilings, or columns (posts and piers).

I. **Encroachment** – 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.

J. **Existing construction** – Structures for which the “start of construction” commenced before December 5, 1990. “Existing construction” may also be referred to as “existing structures.”

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

L. **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 manufacturing 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). M. **FEMA** – Federal Emergency Management Agency.

N. **Flood or flooding** –

i. 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.

ii. The collapse or subsidence 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 a 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.

O. **Flood Insurance Rate Map (FIRM)** – An official map of our community on which the Federal Emergency Management Agency (FEMA) 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).

P. **Flood Insurance Study (FIS)** – A report by FEMA that examines, evaluates, and determines flood hazards, and if appropriate, corresponding water surface elevations, or an examination, evaluation and determination of mudflow and/or flood-related erosion hazards.

Q. **Floodplain or flood-prone area** – Any land area susceptible to being inundated by water from any source.

R. **Flood proofing** – 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.

S. **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 (1) foot.

T. **Freeboard** – A factor of safety usually expressed in feet above a flood level for purposes of floodplain managements. “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.

U. **Highest adjacent grade** – The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

V. **Historic structure** – Any structure that is:

i. Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

ii. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

iii. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or,

iv. 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.

W. **Hydrologic and Hydraulic Engineering Analysis** – Analyses performed by a licensed professional engineer, in accordance with standard engineering practices that are accepted by the Virginia Department of Conservation and Recreation (VDCR) and FEMA, used to determine the base flood, other frequency floods, flood elevations, floodway information and boundaries, and flood profiles.

X. **Letters of Map Change (LOMC)** – A Letter of Map Change is an official FEMA determination, by letter, that amends or revises an effective Flood Insurance Rate Map or Flood Insurance Study. Letters of Map Change include:

i. Letter of Map Amendment (LOMA): An amendment based on technical data showing that a property was incorrectly included in a designated special flood hazard area. A LOMA amends the current effective Flood Insurance Rate Map and establishes that a land as defined by metes and bounds or structure is not located in a special flood hazard area.

ii. Letter of Map Revision (LOMR): A revision based on technical data that may show changes to flood zones, flood elevations, floodplain and floodway delineations, and planimetric features. A Letter of Map Revision Based on Fill (LOMR-F) – is a determination that a structure or parcel of land has been elevated by fill above the base flood elevation and is, therefore, no longer exposed to flooding associated with the base flood. In order to qualify for this determination, the fill must have been permitted and placed in accordance with the community's floodplain management regulations.

iii. Conditional Letter of Map Revision (CLOMR): A formal review and comment as to whether a proposed flood protection project or other project complies with the minimum NFIP requirements for such projects with respect to delineation of special flood hazard areas. A CLOMR does not revise the effective Flood Insurance Rate Map or Flood Insurance Study.

Y. **Lowest adjacent grade** – The lowest natural elevation of the ground surface next to the walls of a structure.

Z. **Lowest Floor** – The lowest floor of the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure, usable solely for the 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 44 CFR 60.3.

AA. **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

connected to the required utilities. 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 one hundred and eighty (180) consecutive days.

BB. **Manufactured home park or subdivision** – A parcel (or contiguous parcels) of land divided into two (2) or more manufactured home lots for rent or sale.

CC. **Mean Sea Level** - Is an elevation point that represents the average height of the ocean’s surface (such as the halfway point between the mean high tide and the mean low tide) which is used as a standard in reckoning land elevation.

DD. **New Construction** – For the purposes of determining insurance rates, structures for which the “start of construction” commenced on or after December 5, 1990, and includes any subsequent improvements to such structures. For floodplain management purposes, new construction means structures for which the start of construction commenced on or after the effective date of a floodplain management regulation adopted by a community and includes any subsequent improvements to such structures.

EE. **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 this ordinance.

FF. **Post-FIRM structures** – A structure for which construction or substantial improvement occurred after December 5, 1990.

GG. **Pre-FIRM structures** – A structure for which construction or substantial improvement occurred on or before December 5, 1990.

HH. **Primary frontal dune** – A continuous or nearly continuous mound or ridge of sand with relatively steep seaward and landward slopes immediately landward and adjacent to the beach and subject to erosion and overtopping from high tides and waves during major coastal storms. The inland limit of the primary frontal dune occurs at the point where there is a distinct change from a relatively steep slope to a relatively mild slope.

II. **Recreational vehicle** – A vehicle which is:

- i. Built on a single chassis;
- ii. Four hundred square feet (400) or less when measured at the largest horizontal projection;
- iii. Designed to be self-propelled or permanently towable by a light duty truck; and,

iv. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational camping, travel, or seasonal use.

JJ. **Repetitive Loss Structure** – A Repetitive Loss (RL) property is an insurable building for which two (2) or more claims of more than one thousand dollars (\$1,000) were paid by the National Flood Insurance Program (NFIP) within any rolling ten-year period, since 1978. A RL property may or may not be currently insured by the NFIP. A building covered by a contract for flood insurance that has incurred flood-related damages on two occasions within ten years, in which the cost of the repair, on the average, equaled or exceeded twenty-five percent (25%) of the market value of the structure at the time of each such flood event, and at the time of the second incidence of flood-related damage, the contract for flood insurance contains increased cost of compliance coverage.

KK. **Severe repetitive loss structure** – A structure that (a) is covered under a contract for flood insurance made available under the NFIP, and (b) has incurred flood related damage – (i) For which four (4) or more separate claims payments have been made under flood insurance coverage with the amount of each such claim exceeding five thousand dollars (\$5,000), and with the cumulative amount of such claims payments exceeding twenty thousand dollars (\$20,000), or (ii) for which at least two (2) separate claim payments have been made under such coverage, with the cumulative amount of such claims exceeding the market value of the insured structure.

LL. **Shallow flooding area** – A special flood hazard area with base flood depths from one (1) to three (3) 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.

MM. **Special flood hazard area** – The land in the floodplain subject to a one (1%) percent or greater chance of being flooded in any given year as determined in 18-261 of this ordinance.

NN. **Start of construction** – For other than new construction and substantial improvement, under the Coastal Barriers Resource Act (P.L. 0 97-348), means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, substantial improvement or other improvement was within one hundred and eighty days (180) 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 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 the 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.

OO. **Structure** – For floodplain 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.

PP. **Substantial damage** – Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed fifty percent (50%) of the market value of the structure before the damage occurred.

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

i. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions, or

ii. Any alteration of an historic structure, provided that the alteration will not preclude the structure's continued designation as a historic structure.

iii. Historic structures undergoing repair or rehabilitation that would constitute a substantial improvement as defined above, 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.

RR. **Violation** – The failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without the elevation certificate, or other certifications, or other evidence of compliance is presumed to be in violation until such time as that documentation is provided.

SS. **Watercourse** – 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.

## **DIVISION II – GENERAL PROVISIONS**

**Sec. 18-236 Statutory Authorization and Purpose**

This ordinance is adopted pursuant to the authority granted to localities by Virginia 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:

- A. Regulating uses, activities, and development which, alone or in combination with other existing or future uses, activities, and development, will cause unacceptable increases in flood heights, velocities, and frequencies;
- B. Restricting or prohibiting certain uses, activities, and development from locating within districts subject to flooding;
- C. Requiring all those uses, activities, and developments that do occur in flood-prone districts to be protected and/or flood-proofed against flooding and flood damage, and,
- D. Protecting individuals from buying land and structures which are unsuited for intended purposes because of flood hazards.

**Sec. 18-237 Applicability**

- A. These provisions shall apply to all privately and publicly owned lands within the jurisdiction of New Kent County and identified as areas of special flood hazard according to the FIRM that is provided to New Kent County by FEMA.
- B. 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 ordinance and any other applicable ordinances and regulations which apply to uses within the jurisdiction of this ordinance.
- C. The degree of flood protection sought by the provisions of this ordinance is considered reasonable for regulatory purposes and is based on acceptable engineering methods of study, but does not imply total flood protection. Larger floods may occur on rare occasions. 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 districts outside the floodplain district or land uses permitted within such district will be free from flooding or flood damage.
- D. This ordinance shall not create liability on the part of New Kent County or any officer or employee thereof for any flood damage that results from reliance on this ordinance or any administrative decision lawfully made thereunder.

**Sec. 18-238 Records**

Records of actions associated with administering this ordinance shall be kept on file and maintained by the Floodplain Administrator.

**Sec. 18-239 Abrogation and Greater Restrictions**

This ordinance supersedes any ordinance currently in effect in flood-prone districts. Any ordinance, however, shall remain in full force and effect to the extent that its provisions are more restrictive.

**Sec. 18-240 Severability**

If any section, subsection, paragraph, sentence, clause, or phrase of this ordinance shall be declared invalid for any reason whatever, such decision shall not affect the remaining portions of this ordinance. The remaining portions of this ordinance shall remain in full force and effect, and for this purpose, the provisions of this ordinance are hereby declared severed.

**Sec. 18-241 Penalty for Violation**

Any person who fails to comply with any of the requirements or provisions of this article or directions of the floodplain administrator or any authorized employee of the County of New Kent shall be guilty of the appropriate violation and subject to the penalties thereof.

The VA USBC addresses building code violations and the associated penalties in Section 104 and Section 115. Violations and associated penalties of the Zoning Ordinance of New Kent County are addressed in section 98-11 of the Zoning Ordinance.

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

**DIVISION III ADMINISTRATION**

**Sec. 18-251 Designation of the Floodplain Administrator [44 CFR 59.2(b)]**

The New Kent County Building Official is hereby appointed to administer and implement these regulations and is referred to herein as the Floodplain Administrator. The Floodplain Administrator may:

- A. Do the work themselves. In the absence of a designated Floodplain Administrator, the duties are conducted by the County of New Kent County Administrator, and/or
- B. Delegate duties and responsibilities set forth in these regulations to qualified technical personnel, plan examiners, inspectors, and other employees, and/or
- C. Enter into a written agreement or written contract with another community 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 community 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 CFR Section 59.22.

**Sec. 18-252 Duties and Responsibilities of the Floodplain Administrator [44 CFR 60.3]**

The duties and responsibilities of the Floodplain Administrator shall include but are not limited to:

- A. Review applications for permits to determine whether proposed activities will be located in the Special Flood Hazard Area (SFHA).
- B. Interpret floodplain boundaries and provide available base flood elevation and flood hazard information.
- C. Review applications to determine whether proposed activities will be reasonably safe from flooding and require new construction and substantial improvements to meet the requirements of these regulations.
- D. Review applications to determine whether all necessary permits have been obtained from the Federal, State or local agencies from which prior or concurrent approval is required, in particular, permits from state agencies for any construction, reconstruction, repair, or alteration of a dam, reservoir, or waterway obstruction (including bridges, culverts, structures), any alteration of a watercourse, or any change of the course, current, or cross section of a stream or body of water, including any change to the 100-year frequency floodplain of free-flowing non-tidal waters of the Commonwealth.
- E. Verify that applicants proposing an alteration of a watercourse have notified adjacent communities, the Department of Conservation and Recreation (Division of Dam Safety and Floodplain Management), and other appropriate agencies (VADEQ, USACE) and have submitted copies of such notifications to FEMA.
- F. Advise applicants for new construction or substantial improvement of structures that are located within an area of the Coastal Barrier Resources System established by the Coastal Barrier Resources Act that Federal flood insurance is not available on such structures; areas subject to

this limitation are shown on the Flood Insurance Rate Maps as Coastal Barrier Resource System Areas (CBRS) or Otherwise Protected Areas (OPA).

G. Approve applications and issue permits to develop in flood hazard areas if the provisions of these regulations have been met, or disapprove applications if the provisions of these regulations have not been met.

H. Inspect or cause to be inspected, buildings, structures, and other development for which permits have been issued to determine compliance with these regulations or to determine if non-compliance has occurred or violations have been committed.

I. Review Elevation Certificates and require incomplete or deficient certificates to be corrected.

J. Submit to FEMA, or require applicants to submit to FEMA, data and information necessary to maintain FIRMs, including hydrologic and hydraulic engineering analyses prepared by or for the County of New Kent within six months after such data and information becomes available if the analyses indicate changes in base flood elevations.

K. Maintain and permanently keep records that are necessary for the administration of these regulations, including:

- i. Flood insurance studies, Flood insurance rate maps (including historic studies and maps and current effective studies and maps) and Letters of Map Change; and
- ii. Documentation supporting issuance and denial of permits, Elevation Certificates, documentation of the elevation (in relation to the datum on the FIRM) to which structures have been flood proofed, other required design certifications, variances, and records of enforcement actions taken to correct violations of these regulations.

L. Enforce the provisions of these regulations, investigate violations, issue notices of violations or stop work orders, and require permit holders to take corrective action.

M. Advise the Board of Zoning Appeals regarding the intent of these regulations and, for each application for a variance, prepare a staff report and recommendation.

N. Administer the requirements related to proposed work on existing buildings;

- i. Make determinations as to whether buildings and structures that are located in the flood hazard areas and that are damaged by any cause have been substantially damaged,
- ii. Make reasonable efforts to notify owners of substantially damaged structures of the need to obtain a permit to repair, rehabilitate, or reconstruct, and prohibit the non-compliant repair of substantially damaged buildings except for temporary emergency

protective measures necessary to secure a property or stabilize a building or structure to prevent additional damage.

O. Undertake, as determined appropriate by the Floodplain Administrator due to the circumstances, other actions which may include but are not limited to: issuing press releases, public service announcements, and other public information materials related to permit requests and repair of damaged structures, coordinating with other Federal, State and Local agencies to assist with substantial damage determinations; providing owners of damaged structures information related to the proper repair of damaged structures in special flood hazard areas; and assisting property owners with documentation necessary to file claims for Increased Cost of Compliance coverage under NFIP flood insurance policies.

P. Notify the Federal Emergency Management Agency when the corporate boundaries of the County of New Kent have been modified and:

i. Provide a map that clearly delineates the new corporate boundaries or the new area for which the authority to regulate pursuant to these regulations has either been assumed or relinquished through annexation; and

ii. If the FIRM for any annexed area includes special flood hazard areas that have flood zones that have regulatory requirements that are not set forth in these regulations, prepare amendments to these regulations to adopt the FIRM and appropriate requirements, and submit the amendments to the New Kent County Board of Supervisors for adoption; such adoption shall take place at the same time as or prior to the date of annexation and a copy of the amended regulations shall be provided to the Department of Conservation and Recreation (Division of Dam Safety and Floodplain Management) and FEMA.

Q. Upon the request of FEMA, complete and submit a report concerning participation in the NFIP which may request information regarding the number of buildings in the SFHA, number of permits issued for development in the SFHA, and number of variances issued for development in the SFHA.

R. It is the duty of the Community Floodplain Administrator to take into account flood, mudslide and flood-related erosion hazards, to the extent that they are known, in all official actions relating to land management and use throughout the entire jurisdictional area of the Community, whether or not those hazards have been specifically delineated geographically (e.g. via mapping or surveying).

#### **Sec. 18-253 Use and Interpretation of FIRMs [44 CFR 60.3]**

The Floodplain Administrator shall make interpretations, where needed, as to the exact location of special flood hazard areas, floodplain boundaries, and floodway boundaries. The following shall apply to the use and interpretation of FIRMs and data.

A. Where field surveyed topography indicates that adjacent ground elevations:

- i. Are below the base flood elevation, even in areas not delineated as a special flood hazard area on a FIRM, the area shall be considered a special flood hazard area and subject to the requirements of these regulations;
- ii. Are above the base flood elevation, the area shall be regulated as a special flood hazard area unless the applicant obtains a Letter of Map Change that removes the area from the SFHA.

B. In FEMA-identified special flood hazard areas where base flood elevation and floodway data have not been identified and in areas where FEMA has not identified SFHAs, any other flood hazard data available from a Federal, State, or other source shall be reviewed and reasonably used.

C. Base flood elevations and designated floodway boundaries on FIRMs and in FISs shall take precedence over base flood elevations and floodway boundaries by any other sources if such sources show reduced floodway widths and/or lower base flood elevations.

D. Other sources of data shall be reasonably used if such sources show increased base flood elevations and/or larger floodway areas than are shown on FIRMs and in FISs.

E. If a Preliminary Flood Insurance Rate Map and/or a Preliminary Flood Insurance Study has been provided by FEMA:

- i. Upon the issuance of a Letter of Final Determination by FEMA, the preliminary flood hazard data shall be used and shall replace the flood hazard data previously provided from FEMA for the purposes of administering these regulations.
- ii. Prior to the issuance of a Letter of Final Determination by FEMA, the use of preliminary flood hazard data shall be deemed the best available data pursuant to Section 18-261(iii) and used where no base flood elevation and/or floodway areas are provided on the effective FIRM.
- iii. Prior to issuance of a Letter of Final Determination by FEMA, the use of preliminary flood hazard data is permitted where the preliminary base flood elevations or floodway areas exceed the base flood elevations and/or designated floodway widths in existing flood hazard data provided by FEMA. Such preliminary data may be subject to change and/or appeal to FEMA.

**Sec. 18-254 Jurisdictional Boundary Changes [44 CFR 59.22, 65.3]**

The County floodplain ordinance in effect on the date of annexation shall remain in effect and shall be enforced by the municipality for all annexed areas until the municipality adopts and

enforces an ordinance which meets the requirements for participation in the National Flood Insurance Program.

In accordance with the Code of Federal Regulations, Title 44 Subpart (B) Section 59.22 (a)(9)(v) all NFIP participating communities must notify the Federal Insurance Administration and optionally the State Coordinating Office in writing whenever the boundaries of the community have been modified by annexation or the community has otherwise assumed or no longer has authority to adopt and enforce floodplain management regulations for a particular area.

In order that all Flood Insurance Rate Maps accurately represent the community's boundaries, a copy of a map of the community suitable for reproduction, clearly delineating the new corporate limits or new area for which the community has assumed or relinquished floodplain management regulatory authority must be included with the notification.

#### **Sec. 18-255 District Boundary Changes**

The delineation of any of the Floodplain Districts may be revised by the County of New Kent where natural or man-made changes have occurred and/or where more detailed studies have been conducted or undertaken by the U.S. Army Corps. of Engineers or other qualified agency, or an individual documents the need for such change. However, prior to any such change, approval must be obtained from FEMA.

#### **Sec. 18-256 Interpretation of District Boundaries**

Initial interpretations of the boundaries of the Floodplain Districts shall be made by the Floodplain Administrator. Should a dispute arise concerning the boundaries of any of the Districts, the Board of Zoning 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 and to submit his own technical evidence if he so desires.

#### **Sec. 18-257 Submitting Technical Data [44 CFR 65.3]**

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 FEMA 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.

#### **Sec. 18-258 Letters of Map Revision**

When development in the floodplain will cause or causes a change in the base flood elevation, the applicant, including state agencies, must notify FEMA by applying for a Conditional Letter of Map Revision and then a Letter of Map Revision.

Examples:

- i. Any development that cause a rise in the base flood elevations within the floodway.
- ii. Any development occurring in Zones A1-30 and AE without a designated floodway, which will cause a rise of more than one foot in the base flood elevation.
- iii. Alteration or relocation of a stream (including but not limited to installing culverts and bridges) *44 Code of Federal Regulations 65.3 and 65.6(a)(12)*.

## **DIVISION IV ESTABLISHMENT OF ZONING DISTRICTS**

### **Sec. 18-261 Description of Special Flood Hazard Districts (44 CFR 59.1, 60.3)**

#### **A. Basis of Districts**

The various special flood hazard districts shall include the SFHAs. The basis for the delineation of these districts shall be the FIS and the FIRM for the County of New Kent prepared by FEMA, Federal Insurance Administration, dated August 3, 2015 and any subsequent revisions or amendments thereto.

The County of New Kent may identify and regulate local flood hazard or ponding areas that are not delineated on the FIRM. These areas may be delineated on a “Local Flood Hazard Map” using best available topographic data and locally derived information such as flood of record, historic high water marks or approximate study methodologies.

The boundaries of the SFHA Districts are established as shown on the FIRM which is declared to be a part of this ordinance and which shall be kept on file at the Office of Building Development.

- i. The Floodway District is in an AE Zone and is delineated, for purposes of this ordinance, using the criterion that certain areas within the floodplain must be capable of carrying the waters of the one percent (1%) annual chance flood without increasing the water surface elevation of that flood more than one (1) foot at any point. According to the Firms, there are no delineated floodways for New Kent County.

The following provisions shall apply within the Floodway District of an AE zone [44 CFR 60.3(d)]:

- a. 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 will not result in any increase in flood levels within the community during the occurrence of the base flood discharge. Hydrologic and hydraulic analysis 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 Floodplain Administrator.

Development activities which increase the water surface elevation of the base flood may be allowed, provided that the applicant first applies – with New Kent County’s endorsement – for a Conditional Letter of Map Revision (CLOMR), and receives the approval of FEMA.

If 18-261 (A)(i) is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Division V.

b. The placement of manufactured homes (mobile homes) is prohibited, except in existing manufactured home (mobile home) parks or subdivisions. A replacement home may be placed on a lot in an existing manufactured home park or subdivision provided the anchoring, elevation, and encroachment standards are met.

ii. The AE, or AH Zones on the FIRM accompanying the FIS shall be those areas for which one percent (1%) annual chance flood elevations have been provided and the floodway has not been delineated. The flowing provisions shall apply within an AE or AH zone [44 CFR 60.3(c)]\*.

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 or AH on the FIRM, 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 (1) at any point within New Kent County.

Development activities in Zones A1-30 and AE or AH, on the New Kent County’s FIRM which increase the water surface elevation of the base flood by more than one foot (1) may be allowed, provided that the applicant first applies – with New Kent County’s endorsement – for a Conditional Letter of Map Revision, and receives the approval of FEMA.

\*The requirement in 63.3(c)(10) only applies along rivers, streams, and other watercourses where FEMA has provided base flood elevations. The requirement does not apply along lakes, bays and estuaries, and the ocean coast.

iii. The A Zone on the FIRM accompanying the FIS shall be those areas for which no detailed flood profiles or elevations are provided, but the one percent (1%) annual chance floodplain boundary has been approximated. For these areas, the following provisions shall apply [44 CFR 60.3(b)].

The Approximated Floodplain District shall be that floodplain area for which no detailed flood profiles or elevations are provided, but where a one hundred year (100) floodplain boundary has been approximated. Such areas are shown as Zone A on the maps accompanying the FIS. For these areas, the base flood elevations and floodway information from federal, state, and other acceptable sources shall be used, when available. Where the specific one percent (1%) annual chance 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 Flood-Prone Quadrangles, etc., then the applicant for the proposed use, development, and/or activity shall determine this base flood elevation. For development proposed in the approximate floodplain the applicant must use technical methods that correctly reflect currently accepted non-detailed technical concepts, such as point on boundary, high water marks, or detailed methodologies hydrologic and hydraulic analyses. Studies, analyses, computations, etc. shall be submitted in sufficient detail to allow a thorough review by the Floodplain Administrator.

The Floodplain Administrator reserves the right to require a hydrologic and hydraulic analysis for any development. When such base flood elevation data is utilized, the lowest floor shall be elevated to or above the base flood level of no less than one foot (1).

During the permitting process, the Floodplain Administrator shall obtain:

a. The elevation of the lowest floor (including the basement) of all new and substantially improved structures; and,

b. If the structure has been flood-proofed in accordance with the requirements of this article, the elevation (in relation to mean sea level) to which the structure has been flood-proofed.

Base flood elevation data shall be obtained from other sources or developed using detailed methodologies comparable to those contained in a FIS for subdivision proposals and other proposed development proposals (including manufactured home parks and subdivisions) that exceed fifty lots (50) or five acres (5), whichever is the lesser.

iv. The AO Zone on the FIRM accompanying the FIS shall be those areas of shallow flooding identified as AO on the FIRM. For these areas, the following provisions shall apply [44 CFR 60.3(c)]

a. All new construction and substantial improvements of residential structures shall have the lowest floor, including basement, elevated to or above the flood depth specified on the FIRM, above the highest adjacent grade at least as high as the depth number specified in feet on the FIRM. If no flood depth number is specified, the lowest floor, including basement, shall be elevated no less than two feet (2) above the highest adjacent grade.

b. All new construction and substantial improvements of non-residential structures shall:

i. Have the lowest floor, including basement, elevated to or above the flood depth specified on the FIRM, above the highest adjacent grade at least as high as the depth number specified in feet on the FIRM. If no flood depth number is specified, the lowest floor, including basement, shall be elevated at least two feet (2 ft.) above the highest adjacent grade; or,

ii. Together with attendant utility and sanitary facilities be completely flood-proofed to the specified flood level so that any space below that level is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.

c. Adequate drainage paths around structures on slopes shall be provided to guide floodwaters around and away from proposed structures.

v. The Coastal A Zone shall be those areas, as defined by the VA USBC, that are subject to wave heights between 1.5 feet and 3 feet, and identified on the FIRM as areas of Limits of Moderate Wave Action (LiMWA). For these areas, the following provisions shall apply:

Building and structures within this zone shall have the lowest floor elevated to or above the base flood elevation plus one foot of freeboard, and must comply with the provisions in Section 18-261 (A)(ii) and Sections 18-267 and 18-268.

vi. The VE Zone or V Zones on FIRMs accompanying the FIS shall be those areas that are known as Coastal High Hazard areas, extending from offshore to the inland limit of a primary frontal dune along an open coast. For these areas, the following provisions shall apply [44 CFR 60.3(e)]

a. All new construction and substantial improvements including manufactured homes in Zones V and VE (V if base flood elevation is available) shall be elevated on pilings or columns so that:

i. The bottom of the lowest horizontal structural member of the lowest floor (excluding the piling or columns) is elevated to no less than one (1) foot or greater above the base flood level if the lowest horizontal structural member is parallel to the direction of wave approach or elevated at least one foot (1 ) above the base flood level if the lowest horizontal structural member is perpendicular to the direction of wave approach; and,

ii. The pile or column foundation and structure attached thereto is anchored to resist flotation, collapse, and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. Wind and water loading values shall each have a one percent (1%) chance of being equaled or exceeded in any given year (one-percent (1%) annual chance).

b. A registered professional engineer or architect shall develop or review the structural design, specifications and plans for the construction, and shall certify that the design and methods of construction to be used are in accordance with accepted standards of practice for meeting the provisions of 18-261(a)(6)(a) .

c. The Floodplain Administrator shall obtain the elevation (in relation to mean sea level) of the bottom of the lowest horizontal structural member of the lowest floor (excluding pilings and columns) of all new and substantially improved structures in Zones V and VE. The Floodplain Management Administrator shall maintain a record of all such information.

d. All new construction shall be located landward of the reach of mean high tide.

e. All new construction and substantial improvements shall have the space below the lowest floor either free of obstruction or constructed with nonsupporting breakaway walls, open wood-latticed work, or insect screening intended to collapse under wind and water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system. For the purpose of this section, a breakaway wall shall have a design safe loading resistance of not less than ten (10) and no more than twenty (20) pounds per square foot. Use of breakaway walls which exceed a design safe loading resistance of twenty (20) pounds per square foot (either by design or when so required by local codes) may be permitted only if a registered professional engineer or architect certifies that the designs proposed meet the following conditions:

i. Breakaway wall collapse shall result from water load less than that which would occur during the base flood; and

ii. The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects

of wind and water loads acting simultaneously on all building components (structural and nonstructural). Maximum wind and water loading values to be used in this determination shall each have a one percent (1%) chance of being equaled or exceeded in any given year.

f. The enclosed space below the lowest floor shall be used solely for parking of vehicles, building access, or storage. Such space shall not be partitioned into multiple rooms, temperature-controlled, or used for human habitation.

g. The use of fill for structural support of buildings is prohibited. When non-structural fill is proposed in a coastal high hazard area, appropriate engineering analyses shall be conducted to evaluate the impacts of the fill prior to issuance of a building permit.

h. The man-made alteration of sand dunes, which would increase potential flood damage, is prohibited.

#### **Sec. 18-262 Overlay Concept**

The Floodplain Districts described above shall be overlays to the existing underlying districts as shown on the Official Zoning Ordinance Map, and as such, the provisions for the floodplain districts shall serve as a supplement to the underlying district provisions.

If there is any conflict between the provisions or requirements of the Floodplain Districts and those of any underlying district, the more restrictive provisions and/or those pertaining to the floodplain districts shall apply.

In the event any provision concerning a Floodplain District is declared inapplicable as a result of any legislative or administrative actions or judicial decision, the basic underlying provisions shall remain applicable.

#### **Division V – District Provisions [44 CFR 59.22, 60.2, 60.3]**

#### **Sec. 18-266 Permit and Application Requirements**

##### **A. Permit Requirement**

All uses, activities, and development occurring within any floodplain district, including placement of manufactured homes, shall be undertaken only upon the issuance of a zoning permit. Such development shall be undertaken only in strict compliance with the provisions of this Ordinance and with all other applicable codes and ordinances, as amended, such as the Virginia Uniform Statewide Building Code (VA USBC) and the County of New Kent Subdivision Ordinances. Prior to the issuance of any such permit, the Floodplain Administrator shall require all applications to include compliance with all applicable state and federal laws and shall review all sites to assure they are reasonably safe from flooding. Under no circumstances

shall any use, activity, and/or development adversely affect the capacity of the channels or floodway of any watercourse, drainage ditch, or any other drainage facility or system.

**B. Site Plans and Permit Applications**

All applications for development within any floodplain district and all building permits issued for the floodplain shall incorporate the following information:

- i. The elevation of the Base Flood at the site.
- ii. The elevation of the lowest floor (including basement) or, in V zones, the lowest horizontal structural member.
- iii. For structures to be flood-proofed (non-residential only), the elevation to which the structure will be flood-proofed.
- iv. Topographic information showing existing and proposed ground elevations.

**Sec. 18-267 – General Standards**

The following provisions shall apply to all permits:

A. New construction and substantial improvements shall be according to 18-261 of this ordinance and the VA USBC, and anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.

B. 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.

C. New construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.

D. New construction or substantial improvements shall be constructed by methods and practices that minimize flood damage.

E. 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.

F. New and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system.

G. 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.

H. 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:

I. 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. Army 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), other required agencies, and FEMA.

J. The flood carrying capacity within an altered or relocated portion of any watercourse shall be maintained.

#### **Sec. 18-268 Elevation and Construction Standards [44 CFR 60.3]**

In all identified flood hazard areas where base flood elevations have been provided in the FIS or generated by a certified professional in accordance with Section 18-261(A)(3), the following provisions shall apply:

##### **A. Residential Construction**

New construction or substantial improvement of any residential structure (including manufactured homes) in Zones A1-30, AE, AH and A with detailed base flood elevations shall have the lowest floor, including basement, elevated to or above not less than one foot (1) above the base flood level. See 18-261(A)(v) and 18-261(A)(vi) for requirements in the Coastal A and VE zones.

##### **B. Non-Residential Construction**

New construction or substantial improvement of any commercial, industrial, or non-residential building (or manufactured home) shall have the lowest floor, including basement, elevated to not less than one (1) foot or greater above the base flood level. See 18-261(A)(v) and 18-261(A)(vi) for requirements in the Coastal A and VE zones. Non-residential 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, including attendant utility and sanitary facilities, 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 flood- proofed, shall be maintained by the Floodplain Administrator.

### C. Space Below the Lowest Floor

In zones A, AE, AH, AO, and A1-A30, fully enclosed areas, of new construction or substantially improved structures, which are below the regulatory flood protection elevation shall:

- i. 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);
- ii. Be constructed entirely of flood resistant materials below the regulatory flood protection elevation;
- iii. Include 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 (2) openings on different sides of each enclosed area subject to flooding,
  - b. The total net area of all openings must be at least one (1) square inch for each square foot of enclosed area subject to flooding,
  - c. If a building has more than one (1) enclosed area, each area must have openings to allow floodwaters to automatically enter and exit,
- iv. The bottom of all required openings shall be no higher than one (1) foot above the adjacent grade,
- v. Openings may be equipped with screens, louvers, or other opening coverings or devices, provided they permit the automatic flow of floodwaters in both directions,
- vi. 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. Standards for Manufactured Homes and Recreational Vehicles

1. All manufactured homes placed, or substantially improved, on individual lots or parcels, must meet all the requirements for new construction, including the elevation and anchoring requirements in 18-267(B) and 18-268.

2. All manufactured homes placed, or substantially improved, on sites in an existing manufactured home park or subdivision within Zones A-1-30, AH, and AE on the community's FIRM in which a manufactured home has incurred substantial damage are subject to the provisions in 18-268(A), 18-268(B) or 18-261(A)(vi) and must be elevated so that the lowest floor of the manufactured home is one (1) foot or greater above the base flood elevation.

3. All manufactured homes placed, or substantially improved, on sites in an existing manufactured home park or subdivision within Zones A-1-30, AH, and AE on the community's FIRM in which a manufactured home has NOT incurred substantial damage must be elevated so that the lowest floor of the manufactured home is one (1) foot or greater above the base flood elevation OR the manufactured home chassis must be 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 can be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

4. All recreational vehicles placed on sites must either:

- a. Be on the site for fewer than 180 consecutive days, be fully licensed and ready for highway use (a recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices and has no permanently attached additions);  
or
- b. Meet all the requirements for manufactured homes.

#### **Sec. 18-18-269          Standards for Subdivision Proposals**

i. All subdivision proposals shall be consistent with the need to minimize flood damage;

ii. All subdivisions proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage;

iii. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood hazards; and

iv. Base flood elevation data shall be obtained from other sources or developed using detailed methodologies, hydraulic and hydrologic analysis, comparable to those contained in a

FIS for subdivision proposals and other proposed development proposals (including manufactured home parks and subdivisions) that exceed fifty lots (50) or five acres (5), whichever is the lesser).

#### **DIVISION VI – EXISTING STRUCTURES IN FLOODPLAIN AREAS**

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

A. Existing structures in the Floodway Area 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.

B. Any modification, alteration, repair, reconstruction, or improvement of any kind to a structure and/or use located in any floodplain area to an extent or amount of less than fifty (50) percent of its market value shall conform to the VA USBC and the appropriate provisions of this ordinance.

C. The modification, alternation, 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 fifty (50) percent or more of its market value shall be undertaken only in full compliance with this ordinance and shall require the entire structure to conform to the VA USBC and the appropriate provisions of this ordinance.

#### **DIVISION VII – VARIANCES: FACTORS TO BE CONSIDERED [44 CFR 60.6]**

Variations shall be issued only upon (i) a showing of good and sufficient cause, (ii) after the Board of Zoning Appeals has determined that failure to grant the variance would result in exceptional hardship to the applicant, and (iii) after the Board of Zoning Appeals has determined that the granting of such variance 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.

While the granting of variances is generally limited to a lot size less than one-half acre (1/2), deviations from that limitation may occur. However, as the lot size increases beyond one-half acre (1/2), the technical justification required for issuing a variance increases. Variations may be issued by the Board of Zoning Appeals for new construction and substantial improvements to be erected on a lot of one-half acre (1/2) or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, in conformance with the provisions of this section.

Variations may be issued for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use provided that the criteria of this section are met, and the structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.

In passing upon applications for variations, the Board of Zoning Appeals shall satisfy all relevant factors, and procedures specified in other sections of the zoning ordinance and consider the following additional factors.

A. The danger to life and property due to increase in flood heights or velocities caused by encroachments. No variance shall be granted for any proposed use, development, or activity within any Floodway District that will cause any increase in one percent (1%) chance 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 by ordinary and emergency vehicles to the property in time of flood.

K. The expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters expected at the site.

L. The historic nature of a structure. Variations for repair or rehabilitation of historic structures may be granted upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.

M. Such other factors which are relevant to the purposes of this ordinance.

The Board of Zoning Appeals may refer any application and accompanying documentation pertaining to any request for a variance 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.

Variances shall be issued only after the Board of Zoning Appeals 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.

Variances shall be issued only after the Board of Zoning Appeals has determined that the variance will be the minimum required to provide relief.

The Board of Zoning Appeals shall notify the applicant for a variance, in writing, that the issuance of a variance to construct a structure below the one percent (1%) chance flood elevation (a) increase the risks to life and property and (b) will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 of insurance coverage.

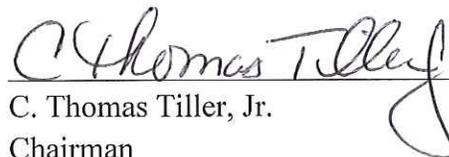
A record shall be maintained of the above notifications as well as all variance actions, including justification for the issuance of the variances. Any variances that are issued shall be noted in the annual or biennial report submitted to the Federal Insurance Administrator.

This Ordinance to be effective upon adoption.



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Rodney A. Hathaway  
County Administrator



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C. Thomas Tiller, Jr.  
Chairman