

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

O-15-09

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 10th day of August 2009:

Present:	Vote:
D. M. Sparks	Aye
James H. Burrell	Aye
Stran L. Trout	Aye
Thomas W. Evelyn	Nay
W. R. Davis, Jr.	Aye

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

**AN ORDINANCE TO APPROVE AMENDMENTS TO
THE ZONING ORDINANCE TO ESTABLISH A
FLOODPLAIN MANAGEMENT OVERLAY
DISTRICT AND ADOPT REVISED FLOOD
INSURANCE RATE MAPS**

WHEREAS, the Federal Emergency Management Agency has promulgated revised Flood Insurance Rate Maps and a revised Flood Insurance Study for New Kent County with an effective date of 25 September 2009; and

WHEREAS, in order for property owners in the County to remain eligible to purchase federally-subsidized flood insurance, the County must adopt the new maps and also revise its floodplain ordinance provisions to conform with the current federal regulations found in 44 CFR 60.3, et seq.; and

WHEREAS, the notification procedures specified in section 15.2-976 of the Code of Virginia have been fully complied with; and

WHEREAS, this amendment was referred to the Planning Commission in accordance with applicable provisions and procedures; and

WHEREAS, the Planning Commission after conducting a duly-advertised public hearing in full accord with applicable procedure and carefully considering the public comment received voted 8:1:1 to recommend approval of the proposed changes to the County Code; and

WHEREAS, the Board of Supervisors finds that approval of the proposed amendments to the Zoning Ordinance will promote good planning and zoning practices in the County and serve to protect the public health, safety and general welfare as well as the private property of the landowners and residents of the County; and

WHEREAS, the Board has determined that it will be advantageous for all property owners of the County for the County to become eligible to participate in the National Flood Insurance Program Community Rating System;

NOW THEREFORE BE IT ORDAINED by the New Kent County Board of Supervisors on this the 10th day of August 2009 that §§ 98-57 through 98-61 and § 98-1026 of the County Code be repealed and the following amendments to the New Kent County Code are hereby adopted:

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.
 - C. 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 non-residential structures and the elevation to which the structure will be floodproofed;

- C. The elevation of the one hundred (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.

(c) 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 (1%) 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:
 - B. overflow of inland or tidal waters, or
 - C. the unusual and rapid accumulation or run-off of surface waters from any source, or
 - D. 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 (1%) 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;
- C. individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or,
- D. individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either
 - 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 44CFR §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 one hundred eighty (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 25 September 2009 are referenced.

New construction. For the purposes of determining insurance rates, structures for which the "start of construction" commenced on or after 5 December 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. 400 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 (1%) 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 (50%) 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 (50%) 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 (2'), provided, however, that a one foot (1') contour interval for elevations two feet (2') lesser and two feet (2') 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 (2'), provided, however, that a one foot (1') contour interval shall be required for elevations two feet (2') lesser and two feet (2') 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 one thousand feet (1,000') 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 fifteen feet (15') 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 (3") 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 (1) vertical to three (3) 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 of 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 one and one-half feet (1½') above the base flood elevation or, in the case of non-residential 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 (3') 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 (5') 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 of 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 (6) 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 (3') 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 (1) 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 (1') 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 non-residential 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 fifty (50) percent of its market value shall conform to the VA USBC.

C. 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 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.

(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, foodproofing 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 V 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.

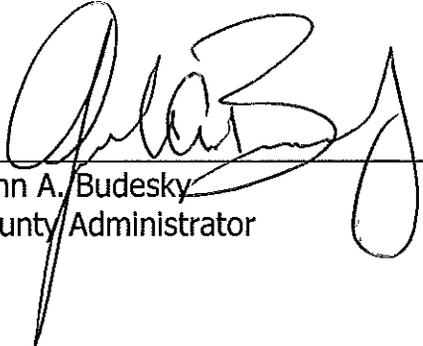
N. Such other factors which are relevant to the purposes of this ordinance.

- (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 fifteen (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.

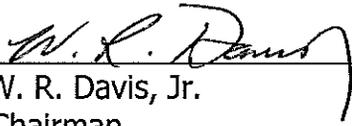
- (2) Nothing in this section shall be construed as to prohibit the zoning administrator from applying to the appropriate court of the county to restrain, correct or abate any violation of this chapter by injunction or other appropriate proceedings.

Sec. 98-58 to 98-61. Reserved.

BE IT FURTHER ORDAINED that this ordinance amendment shall be effective at 12:01 AM on 25 September 2009 to correspond with the effective date of the revised Flood Insurance Rate Map and Flood Insurance Study.



John A. Budesky
County Administrator



W. R. Davis, Jr.
Chairman