

Attachment A

**AMENDMENT TO CHAPTER 48 OF THE ARLINGTON COUNTY CODE REGARDING FLOODPLAIN
MANAGEMENT**

BE IT ORDAINED by the County Board of Arlington County, Virginia, that Chapter 48 of the Arlington County Code is amended, reenacted and recodified, effective November 16, 2023, to read in pertinent part, as follows:

Text denoted with underline or strikethrough is text proposed to be added or deleted, respectively.

ARLINGTON COUNTY CODE

Chapter 48 FLOODPLAIN MANAGEMENT

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ARTICLE I.
IN GENERAL

§ 48-1. Title.

This chapter shall be known as the "Floodplain Ordinance of Arlington County, Virginia."

§ 48-2. Statutory Authorization and Purpose.

This chapter is adopted pursuant to the authority granted to localities by Virginia Code ~~Section 10.1-600~~ § 15.2-2280 et seq.

The specific purposes of these provisions are:

A. To regulate the subdivision, use, activities, and/or development of flood-prone areas in order to promote the general health, welfare, and safety of Arlington County;

B. To encourage the utilization of appropriate construction practices, in order to prevent or minimize flood damage in the future;

C. To minimize danger to public health and safety by protecting public utilities and the natural drainage; ~~and,~~

D. To reduce financial burdens imposed on Arlington County, its governmental units, and its residents, by preventing the inadequate design and construction of development in areas subject to flooding, and requiring all developments that do occur in flood-prone districts to be protected and/or floodproofed against flooding and flood damage.

E. To regulate uses, and activities which, alone or in combination with other existing or future construction, uses, and activities, will cause unacceptable increases in flood heights, velocities, and frequencies.

F. To restrict or prohibit certain uses, activities, and development from locating within districts subject to flooding.

G. To protect individuals from buying land and structures which are unsuited for intended purposes because of flood hazards.

§ 48-3. Regulations Required.

The floodplain management regulations in this section are hereby adopted with the intention of meeting the requirements of § 60.3D of the National Flood Insurance Program Regulations (~~44 Federal Register 31177, May 31, 1979~~).

§ 48-4. Conflict of Chapter.

In any case where a provision of this chapter is found to be in conflict with any other provision of the Arlington County Code existing on the effective date of this chapter, the provision which establishes the more stringent standard for the promotion and protection of the health and safety of the people shall prevail. In any case where a provision of this chapter is found to be in conflict with any other provision of the Arlington County Code existing on the effective date of this chapter which established a less stringent standard for the promotion and protection of the health and safety of the people, the provisions of this chapter shall be deemed to prevail; and such other provisions are hereby declared to be repealed to the extent that they may be found in conflict with this chapter.

§ 48-5. Application of Chapter.

- A. These provisions shall apply to all privately and publicly owned lands within the jurisdiction of Arlington County and identified as areas of special flood hazard by Arlington County or shown on the Flood Insurance Rate Map (FIRM) or included in the Flood Insurance Study (FIS) that are provided to Arlington County by the Federal Emergency Management Agency (FEMA).
1. Any development in the floodplain district shall adhere to the provisions of this chapter.
 2. All structures for which a building permit has been issued and all site plans and subdivisions of land which have been approved before the effective date of this chapter and which have not expired may be completed without the necessity of complying with this chapter, but after completion, any building or structure and the land on which it is situated shall be subject to all the provisions of this chapter.
 3. Any structure or use of a structure or premises which lawfully existed before the enactment of this chapter, but which is not in conformity with these provisions, may be continued subject to the following conditions:
 - a. Existing structures in the floodplain district 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.~~ Base Flood Elevation.
 - b. Any modification, alteration, repair, reconstruction, or improvement of any kind to a structure and/or use located in the floodplain district of less than fifty percent (50%) of its market value shall conform to the Virginia Uniform Statewide Building Code (VA USBC).
 - c. The modification, alteration, repair, reconstruction, or improvement of any kind to a structure and/or use, regardless of its location in the floodplain district to an extent or amount of fifty percent (50%) or greater 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 ~~Virginia Uniform Statewide Building Code.~~ VA USBC.
 4. Any structure shown on the Flood Insurance Rate Map (FIRM) or included in the Flood Insurance Study (FIS) that are provided to Arlington County by the Federal Emergency Management Agency (FEMA) shall adhere to the provisions of this chapter,
 5. In the case of any structure in a district determined when FEMA has issued interim flood hazard data, including Advisory Base Flood Elevations (ABFE) or preliminary maps or studies, these sources must be used as the best available information and shall adhere to the provisions of this chapter. However, Base Flood Elevations from an interim or preliminary source cannot be used if they are lower than the effective FIRM. When evaluating local projects, the County will consult both the effective FIRM and any interim or preliminary data and rely on whichever data source indicates a higher flood risk.
 6. Any structure in a district determined by Arlington County Department of Environmental Services as "community-identified floodplains" and regulated the same as the Special Flood Hazard Area (SFHA) of the FIRM shall adhere to the provisions of this chapter. For the flood prone areas that are likely to be "mapped into the SFHA" in a future FEMA study, the County may regulate development in these areas of high-risk. The community-identified floodplains do not replace the FIRM that is used to identify the flood district and to rate an insurance policy.

ARTICLE II.

DEFINITIONS*

~~* Editors~~ ***Editor's Note:** Ord. No. 91-43, adopted Dec. 7, 1991, amended former Art. II, §§ 48-2.1--48-2.15, in its entirety to read as herein set out. The provisions of former Art. II pertained to definitions and derived from an ordinance adopted Sept. 24, 1977, and Ord. No. 82-10, enacted April 24, 1982.

§ 48-5.1. Applicability

For the purpose of this chapter, the words used in the present tense include the future; words in the singular number include the plural number and vice versa; the word "shall" is mandatory and not directory; and the following phrases and terms shall have the following meanings unless the context clearly indicates otherwise.

§ 48-5.2. Appurtenant or Accessory Structure.

"Appurtenant or Accessory Structure" means a non-residential structure which is on the same parcel of property as the principal structure and the use of which is incidental to the use of the principal structure. Accessory structures within the Special Flood Hazard Area shall not exceed 600 square feet.

§ 48-6. Base Flood.

"Base ~~flood~~Flood" means the flood having a one percent (1%) chance of being equaled or exceeded in any given year.

§ 48-7. Base Flood Elevation (BFE).

"Base ~~flood elevation~~Flood Elevation" means the elevation associated with the one percent (1%) annual water surface elevation as indicated in the Federal Emergency Management Agency (FEMA) Flood Insurance Study (FIS). For sites within the approximated floodplain, the ~~base flood elevation~~Base Flood Elevation shall be established as a point on the boundary of the approximated floodplain which is nearest to the site in question.

§ 48-8. Basement.

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

§ 48-9. Conditional Letter of Map Revision (CLOMR).

"Conditional Letter of Map Revision (CLOMR)" means a formal review and comment as to whether a proposed flood protection project or other project complies with the minimum National Flood Insurance Program (NFIP) requirements for such projects with respect to delineation of ~~special flood hazard areas~~Special Flood Hazard Areas (SFHAs). A CLOMR does not revise the effective Flood Insurance Rate Map (FIRM) or Flood Insurance Study (FIS).

§ 48-10. Development.

"Development" means any manmade change to improved or unimproved land, including but not limited to buildings or other structures, ~~temporary structures~~, mining, dredging, filling, grading, paving, excavation ~~or drilling operations~~, ~~drilling or other land-disturbing activities or permanent or temporary storage of materials or equipment.~~

§ 48-11. Director of Environmental Services.

“Director of Environmental Services” means the Director of the Department of Environmental Services, Arlington County, Virginia.

§ 48-12. Elevated Building.

“Elevated Building” means 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).

§ 48-13. Elevation Certificate.

“~~Elevation certificate~~ Elevation Certificate” means a certificate which shall be on a form prescribed by ~~FEMA~~ the Federal Emergency Management Agency (FEMA) which includes elevation information necessary to document compliance with the Floodplain Ordinance. This certificate is required for each new or substantially improved residential or commercial structure. It may also be used for new or substantially improved nonresidential structures in situations where elevation rather than floodproofing is used to meet the requirements of the Floodplain Ordinance. The certificate is maintained as a public record by the Department of Environmental Services. Blank forms are available from the Department of Environmental Services.

§ 48-14. Encroachment.

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

§ 48-15. Five Hundred-Year Flood.

“~~Five hundred-year flood~~ Hundred-Year Flood” means a flood that has one (1) chance in five hundred (500) or a one-fifth percent (0.2%) chance of being equaled or exceeded in any year.

§ 48-16. Flood Insurance Rate Map (FIRM).

“Flood Insurance Rate Map (FIRM)” means an official map of Arlington County, on which the Federal Emergency Management Agency (~~FEMA~~) has delineated both the ~~special hazard areas~~ Special Flood Hazard Areas (SFHAs) and the risk premium zones applicable to Arlington County. A FIRM that has been made available digitally is called a Digital Flood Insurance Rate Map (DFIRM).

§ 48-17. Flood Insurance Study (FIS).

“Flood Insurance Study (FIS)” means a report by ~~FEMA~~ the Federal Emergency Management Agency (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.

§ 48-18. Flood or Flooding.

“Flood” or “~~flooding~~ Flooding” means a general and 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 of runoff of surface water from any source; or,
- C. Mudflows which are proximately caused by flooding as defined in paragraph (1)(b) 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; or

D. The collapse or subsidence of land along the shore of a lake or other body of water as erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in paragraph 1 (a) of this definition herein.

§ 48-19. Floodplain.

“Floodplain” means: any land area susceptible to being inundated by water from any source.

A. ~~A relatively flat or low land area adjoining a river, stream, or watercourse which is subject to partial or complete inundation; or~~

B. ~~An area subject to the unusual and rapid accumulation of runoff of surface waters from any source.~~

§ 48-20. Floodplain Administrator.

“Floodplain Administrator” means the Director of the Department of Environmental Services, Arlington County, Virginia or his/her designee.

§ 48-21. Floodproofing.

“Floodproofing” means any combination of structural and nonstructural additions, changes, or adjustments to properties and structures which reduce or eliminate flood damage to lands, public and private utilities, structures, and contents of buildings.

§ 48-22. Floodproofing Certificate.

“~~Floodproofing certificate~~ Certificate” means a certification on a form provided by ~~FEMA~~ the Federal Emergency Management Agency (FEMA) which includes information necessary to document compliance with the floodproofing provisions of the Floodplain Ordinance. The certification is required for each new or substantially improved nonresidential structure in the floodplain district, except in cases where elevation rather than floodproofing is used to meet the requirements of the Floodplain Ordinance. This certificate is maintained as a public record by the Department of Environmental Services.

§ 48-23. Floodway.

“Floodway” means the designated area of the channel and adjacent land areas required to carry and discharge the base flood without cumulatively increasing the water surface elevation more than one (1) foot.

§ 48-24. Freeboard.

“Freeboard” means a factor of safety usually expressed in feet above a flood level for purposes of floodplain management. “Freeboard” tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, bridge openings, and the hydrological effect of urbanization in the watershed. When a freeboard, as an additional margin of safety, is included in the height of a structure, the flood insurance premiums may be less expensive in case the engineering models have an error or are based on incomplete data.

§ 48-25. Highest Adjacent Grade

“Highest Adjacent Grade” means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

§ 48-26. Historic Structure.

“~~Historic structure~~ Structure” means any structure that is:

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

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

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

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

1. by an approved state program as determined by the Secretary of the Interior; or,
2. directly by the Secretary of the Interior in states without approved programs.

§ 48-27. Hydrologic and Hydraulic Engineering Analyses.

“Hydrologic and Hydraulic Engineering Analyses” means analyses performed by a licensed professional engineer, in accordance with standard engineering practices that are accepted by the Virginia Department of Conservation and Recreation and FEMA, used to determine the base flood, other frequency floods, flood elevations, floodway information and boundaries, and flood profiles.

§ 48-28. Letter of Map Amendment (LOMA).

“Letter of Map Amendment (LOMA)” means an amendment based on technical data showing that a property was incorrectly included in a designated ~~special flood hazard area~~ Special Flood Hazard Area (SFHA). A LOMA amends the current effective Flood Insurance Rate Map (FIRM) and establishes that a land as defined by ~~meets~~ meets and bounds or structure is not located in a ~~special flood hazard area~~ a SFHA.

§ 48-29. Letter of Map Change (LOMC).

“Letter of Map Change (LOMC)” means an official ~~FEMA~~ Federal Emergency Management Agency (FEMA) determination, by letter, that amends or revises an effective Flood Insurance Rate Map (FIRM) or Flood Insurance Study ~~Letters of Map Change (FIS)~~ Letters of Map Change (FIS). LOMCs include: Letters of Map Amendment (~~LOMA~~ LOMAs) and Letters of Map Revision (~~LOMR~~ LOMRs).

§ 48-30. Letter of Map Revision (LOMR).

“Letter of Map Revision (LOMR)” means 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~~ Base Flood Elevation (BFE) 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.

§ 48-30.1. Lowest Adjacent Grade.

“Lowest Adjacent Grade” means the lowest natural elevation of the ground surface next to the walls of a structure.

§ 48-31. Lowest Floor.

“Lowest Floor” means 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.

§ 48-32. Manufactured Home.

“Manufactured ~~home~~ Home” means a structure which is transportable in one (1) 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 180 consecutive days, but does not include a recreational vehicle.

§ 48-33. Mobile Home.

“Mobile ~~home~~ Home” means a transportable dwelling intended for permanent occupancy which is built on a permanent chassis and is constructed so it may be used without a permanent foundation, whether or not attached to a permanent foundation.

§ 48-33.1. National Flood Insurance Program.

“National Flood Insurance Program” means a program that makes federally backed flood insurance available in those states and communities that agree to adopt and enforce floodplain management ordinances to reduce future flood damage. The program is administered under the National Flood Insurance Act of 1968 and applicable federal regulations promulgated in Title 44 of the Code of Federal Regulations, Subchapter B.

§ 48-34. New Construction.

“New ~~construction~~ Construction” means, for insurance rating purposes, structures for which the "start of construction" as herein defined commenced on or after the effective date of this chapter. ~~December 31, 1974 and includes any subsequent improvements to such structures. This term does not apply to any work on a structure existing before the effective date of this chapter. December 31, 1974.~~ 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 Arlington County and includes any subsequent improvements to such structures.

§ 48-35. One Hundred-Year Flood.

“One ~~hundred-year flood~~ Hundred-Year Flood” means a flood that has one (1) chance in one hundred (100) or a one percent (1%) chance of being equaled or exceeded in any year.

§ 48-35.1. Post-FIRM Structure.

“Post-FIRM Structures” means a structure for which construction and substantial improvement occurred on or after December 31, 1974.

§ 48-35.2. Pre-FIRM Structure.

“Pre-FIRM Structures” means a structure for which construction and substantial improvement occurred before December 31, 1974.

§ 48-36. Principally Above Ground.

“Principally ~~above ground~~ Above Ground” means fifty percent (50%) or more of the actual ~~cash~~ market value of a structure, less land value, is above ground.

§ 48-37. Recreational Vehicle.

“Recreational ~~vehicle~~ Vehicle” means any self-propelled vehicle or vehicle without motive power designed for recreational camping, travel, or seasonal use and not for use as a mobile home which is built on a single chassis and contains four hundred (400) feet or less in surface area when measured at its largest horizontal projection.

§ 48-38. Repetitive Loss Structure.

“Repetitive Loss Structure” means a property for which two (2) or more National Flood Insurance Program (NFIP) losses of at least \$1,000 each have been paid within any 10-year rolling period since 1978.

§ 48-38.1. Severe Repetitive Loss Structure.

“Severe Repetitive Loss Structure” means 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 \$5,000, and with the cumulative amount of such claims payments exceeding \$20,000; or (ii) for which at least two (2) separate claims payments have been made under such coverage, with the cumulative amount of such claims exceeding the market value of the insured structure.

§ 48-39. Shallow Flooding Area.

“Shallow Flooding Area” means a ~~special flood hazard area~~ Special Flood Hazard Area (SFHA) 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.

§ 48-40. Special Flood Hazard Area (SFHA).

“Special Flood Hazard Area” means the land in the floodplain subject to a one (1%) ~~percent~~ percent (1%) or greater chance of being flooded in any given year.

§ 48-41. Start of Construction.

“Start of ~~construction~~ Construction” means for other than new construction and substantial improvement, under the Coastal Barriers Resource Act (P.L. – 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 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets 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~~ Accessory Structures, 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.

§ 48-42. Structure.

“Structure” means, for floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally above ground and affixed to a permanent site, as well as a manufactured home.

§ 48-43. Substantial Damage.

“Substantial ~~damage~~ Damage” means damage of any origin sustained by a structure where 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. It also means flood-related damages sustained by a structure on two (2) occasions in a 10-year period, in which the cost of the repair, on average, equals or exceeds twenty-five percent (25%) of the market value of the structure at the time of each such flood event.

§ 48-44. Substantial Improvement.

“Substantial ~~improvement~~ Improvement” means 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. The term substantial improvement shall refer to structures which have incurred substantial damage regardless of the value or actual cost of the actual repair work performed. The term does not, however, include either:

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

B. Any alteration of a ~~historic structure~~ Historic Structure, provided that the alteration will not preclude the structure's continued status as a historic structure.

C. ~~Historic structures~~ 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.

§ 48-45. Violations.

“Violation” means the failure of a structure or other development to be fully compliant with the Arlington County's floodplain management regulations. A structure or other development without the ~~elevation certificate~~ Elevation Certificate, other certifications, or other evidence of compliance required in Article V, Section 48.57A and B of the Arlington County Code is presumed to be in violation until such time as that documentation is provided.

§ 48-45.1. Watercourse.

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

§ 48-46. Zone Designations.

A FIRM displays the zone designations for Arlington County according to areas of designated flood hazards. The zone designations are:

Zone A--Areas of one hundred-year (1% annual chance) flood; base flood elevations and flood hazard factors

not determined.

Zone AE--Areas of one hundred-year (1% annual chance) flood; base flood elevations and flood hazard factors determined.

Zone AO – Area of one hundred-year (1% annual chance) flood – flood depths of 1 – 3 feet (usually sheet flow on sloping terrain); average flood depth determined. Note: This zone designation was present on the August 19, 2013, Flood Insurance Study (FIS) and the Flood Insurance Rate Map (FIRM) for Arlington County, Virginia, but is not included in the November 16, 2023, FIS/FIRM revision.

Zone D--Areas of undetermined, but possible, flood hazards.

~~*Zone X* – Areas outside the SFHA and Zone D.~~

Zone X (Shaded)--Areas of five hundred-year (0.2% annual chance) flood and areas of one hundred-year (1% annual chance) flood hazards with average depths of less than one (1) foot or with drainage areas less than one (1) square mile.

Zone X (Unshaded)--Areas of minimal flood hazard.

ARTICLE III.

FLOODPLAIN DISTRICT

§ 48-47. Establishment of the Floodplain District.

~~The floodplain district~~ Floodplain District shall include all areas subject to inundation by the waters of the ~~one hundred-year flood~~ One Hundred-Year Flood. The source of this delineation shall be the Flood Insurance Study (FIS) and the Flood Insurance Rate Map (FIRM) for Arlington County, Virginia, as prepared by the Federal Emergency Management Agency (FEMA), Federal Insurance and Mitigation Administration (FIA), ~~Flood Insurance Rate Map FIRM (FIMA), FIRM panels 515520 51013C 0017, 0018, 0019, 0036, 0038, 0039, 0043, 0057, 0076, 0077, 0079, 0081, and 0083-0083, August 19, 2013, dated November 16, 2023,~~ or the latest revision.

The boundaries of the SFHA Special Flood Hazard Area (SFHA) Districts are established as shown on the FIRM which is declared to be a part of this chapter and which shall be kept on file at the Arlington County ~~o~~Offices.

A. The Floodway District is in an AE ~~zone~~ Zone and is delineated, for the purpose of this chapter, using the criterion that certain areas within the floodplain must be capable of carrying the waters of the one percent (1%) annual chance of flood without increasing the water surface elevation of that flood more than one (1) foot at any point. The following provisions shall apply within the Floodway District of an AE ~~zone~~: Zone:

1. Within any floodway area, no encroachments, including fill, new construction, substantial improvements, or other development shall be permitted unless it has been demonstrated through hydrologic and hydraulic analysis performed in accordance with standard engineering practice that the proposed encroachment will not result in any increase in flood levels within the Arlington County during the occurrence of the base flood discharge. Hydrologic and hydraulic analyses shall be undertaken only by professional engineers or others of demonstrated qualifications, who shall certify that the technical methods used correctly reflect currently accepted technical concepts. Studies, analyses, computations, etc., shall be submitted in sufficient detail to allow a thorough review by the Floodplain Administrator.

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

3. If Article III, Section 48-47 is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Article V, Section 48-57.

B. The **AE Zone** 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 following provisions shall apply within an AE zone:

1. 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 Zone AE 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 (1) foot at any point within the Arlington County.

2. Development activities in Zone AE on Arlington County's FIRM which increase the water surface elevation of the base flood by more than one (1) foot may be allowed, provided that the applicant first applies – with Arlington County's endorsement – for a ~~Conditional Letter of Map Revision-CLOMR~~, and receives the approval of ~~the Federal Emergency Management Agency- FEMA~~.

C. 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:

1. The Approximated Floodplain shall be that floodplain area for which no detailed flood profiles or elevations are provided, but where a one hundred (~~100~~-year-(100) year floodplain boundary has been approximated. Such areas are shown as Zone A on the ~~maps-FIRMs~~ 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.

2. 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 ~~one foot above the base flood level~~ the base flood level plus eighteen (18) inches. 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 to which the structure has been flood-proofed.

c. 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 (50) lots or five (5) acres, whichever is the lesser.

D. The **AO Zone** on the FIRM accompanying the FIS shall be those areas of shallow flooding identified as AO zone on the FIRM. For these areas, the following provisions shall apply:

1. 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 (2) feet

above the highest adjacent grade.

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

- a. 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 (2) feet above the highest adjacent grade; or
- b. 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~~ have adequate drainage paths around structures on slopes ~~shall be provided~~ to guide floodwaters around and away from proposed structures.

E. The mapped floodplain includes all of the above regions and the regions designated as X Zone (shaded) on the FIRM accompanying the FIS having a one-five hundredth (0.2) percent annual chance of flooding on any flood map or flood insurance study. In this area no emergency service, medical service, or governmental records storage shall be allowed except by special exception using the waiver process.

F. The mapped floodplain does not include X Zone (unshaded) and D Zone on the FIRM and accompanying FIS as these are areas of minimal flood hazard and undetermined flood hazard, respectively.

§ 48-48. Subdistricts.

The ~~floodplain district~~ Floodplain District shall be comprised of two (2) subdistricts.

A. *Studied ~~floodplain~~ Floodplain:* Those portions of land within the ~~floodplain~~ Floodplain district subject to inundation by the one-hundred-year flood, where study data and flood profiles are available.

B. *Approximated ~~floodplain~~ Floodplain:* Those portions of land within the ~~floodplain district~~ Floodplain District subject to inundation by the one-hundred-year flood, where a detailed study has not been performed but where a one-hundred-year floodplain boundary has been approximated by the Flood Insurance Study (FIS), as shown on the Flood Insurance Rate Map (FIRM); this area is designated as Zone A.

§ 48-49. Revisions, Amendments, and Modifications.

The delineation of the ~~floodplain district~~ Floodplain District may be revised, amended, and modified by Arlington County in compliance with the National Flood Insurance Program (NFIP) when:

- A. There are changes in the boundary of the ~~floodplain district~~ Floodplain District through natural or other causes;
- B. Changes in the boundary of the ~~floodplain district~~ Floodplain District are indicated by updated detailed hydrological and hydraulic studies; or
- C. When the health, safety, and welfare of Arlington County would be promoted by a realignment of the boundary of the ~~floodplain district~~ Floodplain District.

All such changes shall be submitted to the Federal Insurance and Mitigation Administration (FIAFIMA) prior to amendments by the Arlington County Board in order that the Arlington County Board may have the benefit of any comments its officials may make.

ARTICLE IV.

FLOOD DAMAGE CONTROL REGULATIONS

§ 48-50. ~~Esatblishment~~ Establishment of Flood Damage Control Regulations.

In order to prevent excessive damage to buildings and structures due to conditions of flooding, the following restrictions shall apply to all new construction and substantial improvements to existing structures and other development occurring in the ~~floodplain district~~: Floodplain District:

- A. No mobile homes or manufactured homes shall be permitted in the floodplain.
- B. Recreational vehicles placed on sites within the floodplain shall be on the site for fewer than one hundred eighty (180) consecutive days, be fully licensed and ready for highway use, be on wheels or a jacking system, be attached to the site only by quick-disconnect type utilities and security devices, and have no permanently attached additions.
- C. Any development or use of land not prohibited by this chapter shall be permitted provided that all such uses, activities and development shall be undertaken in strict compliance with the floodproofing and related provisions contained herein and in all other applicable codes, ordinances, and regulations. All such development shall be undertaken only upon the issuance of a building permit and a floodplain development permit which is to be submitted to the Department of Environmental Services of Arlington County, Virginia.
- D. An ~~elevation certificate~~ Elevation Certificate for new construction or a ~~floodproofing certificate~~ Floodproofing Certificate for substantial improvement or commercial construction is to be completed by the applicant and submitted to the Department of Environmental Services of Arlington County, Virginia.
- E. In the floodway area of the floodplain no encroachments, including fill, new construction, substantial improvements, or other development, shall be permitted unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in the one hundred-year (1% annual chance) flood elevation.
- F. Within the approximated ~~floodplain district~~ Floodplain District, the applicant shall also delineate a floodway area, which will include base flood elevation data based on the requirement that all existing and future development not increase the one hundred-year (1% annual chance) flood elevation more than one (1) foot at any one (1) point. The engineering principle -- equal reduction of conveyance -- shall be used to make the determination of increased flood heights. Within the floodway area delineated by the applicant, the provisions of § 48-50.E shall apply.
- G. Whenever an applicant proposes to offset the effects of development in the ~~floodplain district~~ Floodplain District by construction of stream improvements, he/she shall submit an engineering study prepared by a duly registered professional engineer which fully evaluates the effects of such construction. All adjacent communities, the Virginia Department of Conservation and Recreation (Division of Dam Safety and Floodplain Management), and the Federal Insurance and Mitigation Administration (~~FIA~~) (~~FIMA~~) shall be notified by the applicant in writing of all such intended activities at least thirty (30) days prior to commencing work. In addition, the applicant shall confirm in writing to the Director of Environmental Services or his/her designee that the flood-carrying capacity within any such altered or relocated watercourse is maintained. All uses, activities, and development shall be undertaken in strict compliance with the floodproofing and related provisions contained herein, and in all other applicable codes, ordinances, and regulations.
- H. Stream channel improvements and stormwater detention facilities are permitted in the ~~floodplain district~~ Floodplain District when in compliance with the rest of this ordinance.
- I. General Standards

The following provisions shall apply to all permitted development:

1. New construction and substantial improvements shall be according to the Virginia Uniform Statewide Building Code (VA USBC) and anchored to prevent flotation, collapse, or lateral movement of the structure.
 2. New construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
 3. New construction or substantial improvements shall be constructed by methods and practices that minimize flood damage.
 4. 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.
 5. New and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system.
 6. 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.
 7. On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.
- J. In addition to the General Standards above, in all Special Flood Hazard Areas; (SFHAs), the additional provisions shall apply:
1. Prior to any proposed alteration or relocation of any channels or of any watercourse, stream, etc., within Arlington County 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 the Federal Emergency Management Agency.
 2. The flood carrying capacity within an altered or relocated portion of any watercourse shall be maintained.

§ 48-51. Elevation and Construction Standards.

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 Article III Section 48-47.D the following provisions shall apply:

A. Residential Construction

New construction or substantial improvement of any residential structure in Zones AE, and A with detailed ~~base flood elevations~~ Base Flood Elevations (BFEs), shall have the lowest floor, including basement, elevated to a minimum of ~~one (1) foot~~ eighteen (18) inches above the base flood level.

B. Non-Residential Construction

New construction or substantial improvement of any commercial, industrial, or non-residential building shall have the lowest floor, including basement, elevated to or above the base flood level a minimum of ~~one (1) foot~~ eighteen (18) inches. Buildings located in all AE and AO ~~zones~~ Zones may be flood-proofed in lieu of being elevated provided that all areas of the building components below the elevation corresponding to the BFE plus ~~one (1) foot~~ two (2) feet are ~~water-tight~~ watertight with walls substantially impermeable to the passage of water, and use structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. A

registered professional engineer or architect shall certify that the standards of this subsection are satisfied. Such certification, including the specific elevation (in relation to mean sea level) to which such structures are floodproofed, shall be maintained by the Floodplain Administrator.

C. Space Below the Lowest Floor

In ~~zones~~Zones A, AE₁, and AO fully enclosed areas, of new construction or substantially improved structures, which are below the regulatory flood protection elevation shall:

1. not be designed or used for human habitation, but shall only be used for parking of vehicles, building access, or limited storage of maintenance equipment used in connection with the premises. Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door) or limited storage of maintenance equipment (standard exterior door), or entry to the living area (stairway or elevator).
2. be constructed entirely of flood resistant materials below the regulatory flood protection elevation₇.
3. 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 enclosed area, each area must have openings to allow floodwaters to automatically enter and exit.
 - d. The bottom of all required openings shall be no higher than one (1) foot above the adjacent grade.
 - e. Openings may be equipped with screens, louvers, or other opening coverings or devices, provided they permit the automatic flow of floodwaters in both directions.
 - f. Foundation enclosures made of flexible skirting are not considered enclosures for floodplain management 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. Accessory Structures

Accessory Structures in the SFHA shall comply with the elevation requirements and other requirements of 48-51.B or, if not elevated or dry floodproofed, shall:

1. Not be used for human habitation.
2. Be limited to no more than 600 square feet in total floor area. Accessory structures that are greater than 560 square feet, but do not exceed 600 square feet, and do not meet all requirements for elevating or dry floodproofing, must secure a waiver before a permit is issued. The accessory structure must comply with criteria in this section. No waiver shall be granted for an accessory structure exceeding 600 square feet.
3. Be useable only for parking of vehicles or limited storage.
4. Be constructed with flood damage-resistant materials below the base flood elevation.

5. Be constructed and placed to offer the minimum resistance to the flow of floodwaters.
6. Be anchored to prevent flotation.
7. Have electrical service and mechanical equipment elevated to or above the base flood elevation.
8. Shall be provided with flood openings which shall meet the following criteria:
 - a. There shall be a minimum of two (2) flood openings on different sides of each enclosed area; if a building has more than one enclosure below the lowest floor, each such enclosure shall have flood openings on exterior walls.
 - b. The total net area of all flood openings shall be at least 1 square inch for each square foot of enclosed area (non-engineered flood openings), or the flood openings shall be engineered flood openings that are designed and certified by a licensed professional engineer to automatically allow entry and exit of floodwaters; the certification requirement may be satisfied by an individual certification, or an Evaluation Report issued by the ICC Evaluation Service, Inc.
 - c. The bottom of each flood opening shall be 1 foot or less above the higher of the interior floor or grade, or the exterior grade, immediately below the opening.
 - d. Any louvers, screens or other covers for the flood openings shall allow the automatic flow of floodwaters into and out of the enclosed area.
9. A signed Declaration of Land Restriction (Non-Conversion Agreement) shall be recorded on the property deed.

E. Standards for Recreational Vehicles

1. All recreational vehicles placed on sites must either:
 - 1- 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
 - 2- b. meet the requirements new construction in Section 48-50.I. and 48-51A, B and C. and 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.

§ 48-52. Utility and System Requirements.

A. All new or replacement public and private utilities located in the ~~floodplain district~~ Floodplain District shall be elevated or floodproofed to a point ~~at one (1) foot~~ eighteen (18) inches or more above the ~~base flood elevation.~~ Base Flood Elevation.

B. All new or replacement water supply systems and sanitary sewer systems within the ~~floodplain district~~ Floodplain District shall be elevated or floodproofed to a point at or above the base flood elevation to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into the flood waters.

C. All new or replacement on-site waste disposal systems shall be located so as to avoid impairment of them or contamination from them during or subsequent to flooding.

D. All storm drainage facilities shall be designed, as determined by the Director of Environmental Services, or ~~his or her~~ his/her designee, to convey the flow of surface waters without damage to persons or property. The systems shall ensure drainage away from buildings and on-site waste disposal sites. The Director of Environmental Services, or ~~his or her~~ his/her designee, may require a primary underground system to accommodate frequent floods and a secondary surface system to accommodate larger, less frequent floods. Drainage plans shall be consistent with local and regional drainage plans. The facilities shall be designed to prevent the discharge of excess runoff onto adjacent properties.

E. Streets and sidewalks shall be designed to minimize their potential for increasing and aggravating the levels of flood flow. Drainage openings shall be required to sufficiently discharge flood flows without unduly increasing flood heights.

§ 48-53. Floodproofing.

Whenever floodproofing is utilized within the scope of the Floodplain Ordinance, such floodproofing shall be done by approved methods. A duly registered professional engineer or architect shall certify that the floodproofing design is reasonably adequate to withstand the flood depths, pressures, velocities, impact, and uplift forces, and other factors associated with the one-hundred-year flood and shall cite the elevation to which the structure is floodproofed. Designs meeting the requirements of the *Flood Resistant Design and Construction*, ASCE 24, shall be deemed to comply with this requirement.

§ 48-54. Fill.

If fill is used to raise the finished surface of the lowest floor at or above the base flood elevation:

- A. Fill shall consist of soil or rock materials only. Sanitary landfills shall not be permitted.
- B. Fill material shall be compacted to provide the necessary stability and resistance to erosion, scouring or settling.
- C. Fill slopes shall be no steeper than one (1) vertical on two (2) horizontal, unless substantiating data justifying steeper slopes are submitted to and approved by the Director of Environmental Services or his/her designee.
- D. Fill shall be used only to the extent to which it does not adversely affect adjacent properties.

§ 48-55. Placement of Buildings and Structures.

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

Setbacks shall be required as follows:

- A. All new construction of and substantial improvements to residential structures shall be set back fifteen (15) feet horizontally in the landward direction from the location of the base flood elevation boundary.
- B. All new construction of and substantial improvements to nonresidential structures shall be set back fifteen (15) feet horizontally in the landward direction from the location of the base flood elevation boundary, unless such structures are floodproofed.

§ 48-56. Storage.

No new construction which stores materials that are buoyant, flammable, explosive, or in times of flooding could be injurious to human, animal, or plant life shall be stored below the base flood elevation.

ARTICLE V.

PLAN REQUIREMENTS

§ 48-57. Building Permit Criteria.

A. Permit Requirement

All ~~uses regulated by this chapter, activities, and~~ development occurring within any ~~floodplain district~~ Floodplain District shall be undertaken only upon ~~the~~ issuance of a building permit ~~if required by the Virginia Uniform Statewide Building Code (VA USBC)~~. Such development shall be undertaken only in strict compliance with the provisions of this chapter and with all other applicable codes and ordinances, as amended, such as the Virginia Uniform Statewide Building Code (VA USBC) and the Arlington County Code. 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 floodways of any watercourse, drainage ditch, or any other drainage facility or system.

B. Permit Applications

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

1. The elevation of the Base Flood at the site.
2. The elevation of the lowest floor (including basement).
3. For structures to be flood-proofed (non-residential only), the elevation to which the structure will be flood-proofed.
4. Topographic information showing existing and proposed ground elevations.

C. Whenever an applicant proposes to offset the effects of development in the ~~floodplain district~~ Floodplain District by construction of stream improvements, he/she shall submit an engineering study prepared by a duly registered professional engineer which fully evaluates the effects of such construction. All adjacent communities, the Virginia Department of Conservation and Recreation (Division of Dam Safety and Floodplain Management), and the Federal Emergency Management Agency (FEMA) shall be notified by the applicant in writing of all such intended activities at least thirty (30) days prior to commencing work. In addition, the applicant shall confirm in writing to the Director of Environmental Services or his/her designee that the flood-carrying capacity within any such altered or relocated watercourse is maintained. All uses, activities, and development shall be undertaken in strict compliance with the floodproofing and related provisions contained herein, and in all other applicable codes, ordinances, and regulations.

D. An ~~elevation certificate~~ Elevation Certificate for new construction or a ~~floodproofing certificate~~ Floodproofing Certificate for substantial improvement or commercial construction is to be completed by the applicant and submitted with its permit application.

E. Standards for Subdivision Proposals

1. All subdivision proposals shall be consistent with the need to minimize flood damage.
2. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage.
3. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood hazards; and
4. Base flood elevation data shall be obtained from other sources or developed using detailed methodologies, hydraulic and hydrologic analyses, comparable to those contained in a ~~Flood insurance~~ Insurance Study for subdivision proposals and other proposed

development proposals that exceed fifty (50) lots or five (5) acres, whichever is the lesser.

§ 48-58. Additional Information.

In addition to the information normally required for review and approval of preliminary plans, the following information, prepared by a duly registered professional engineer or surveyor, shall be required when any part of the proposed subdivision or other development is within the area of the ~~floodplain district~~: Floodplain District:

A. Name of engineer, surveyor, or other qualified person responsible for providing the information required in this section.

B. A map showing the location of the proposed subdivision or development with respect to the County ~~floodplain district~~ Floodplain District including, without limitation, the following information: the base flood elevations, boundaries of ~~flood-prone~~ flood prone areas, proposed lots and sites, fills, flood or erosion-protective facilities, and areas subject to special deed restrictions.

C. Where the subdivision or development lies partially or completely in the ~~floodplain district~~ Floodplain District, or where the subdivision or development borders on the ~~floodplain district~~ Floodplain District, the preliminary plan map shall include detailed information giving the location and elevation of proposed roads, public utilities, and building sites. All such maps shall also show contours at intervals of two (2) or five (5) feet depending upon the slope of the land and identify accurately the boundaries of the ~~floodplain district~~: Floodplain District.

ARTICLE VI.

ADMINISTRATOR

§ 48-59. Designation of the Floodplain Administrator.

The Director of Environmental Services or ~~his or her~~ his/her designee shall administer and implement these regulations and is referred to herein as the Floodplain Administrator. The Floodplain Administrator may delegate duties and responsibilities set forth in these regulations to qualified technical personnel, plan examiners, inspectors, and other employees or County agencies.

§ 48-60. Duties and Responsibilities of the Floodplain Administrator.

The duties and responsibilities of the Floodplain Administrator and his/her designees shall include, but are not limited to:

- A. Review applications for permits to determine whether proposed activities will be located in the flood district.
- B. Interpret floodplain boundaries and provide available base flood elevation and flood hazard information.
- C. Review all applications for subdivisions or building permits to construct or make substantial improvements in the ~~floodplain district~~ Floodplain District and shall determine whether the proposed building site is reasonably safe from flooding and meets the requirements of this chapter.
- 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 State.

- 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. 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.
- G. 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.
- H. Review Elevation Certificates and require incomplete or deficient certificates to be corrected.
- I. Submit to FEMA, or require applicants to submit to FEMA, data and information necessary to maintain the Flood Insurance Rate Maps (FIRMs), including hydrologic and hydraulic engineering analyses prepared by or for Arlington County, within six (6) months after such data and information becomes available if the analyses indicate changes in base flood elevations.
- J. ~~Ø~~. Maintain and permanently keep records that are necessary for the administration of these regulations including:
 - 1. Flood Insurance Studies (FISs), FIRMs (including historic studies and maps and current effective studies and maps), and Letters of Map Change (LOMCs); and
 - 2. 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 floodproofed, inspection records, other required design certifications, waivers, and records of enforcement actions taken to correct violations of these regulations.
- K. ~~The Floodplain Administrator may indentify~~ 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.
- 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. Administer the requirements related to proposed work on existing buildings:
 - 1. Make determinations as to whether buildings and structures that are located in flood hazard areas and that are damaged by any cause have been substantially damaged.
 - 2. Make reasonable efforts to notify owners of substantially damaged structures of the need to obtain a permit to repair, rehabilitate, or reconstruct. 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.
- N. Undertake, as determined appropriate, 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.

- O. 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 Special Flood Hazard Area (SFHA), number of permits issued for development in the SFHA, and number of waivers issued for development in the SFHA.
- P. 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 County, whether or not those hazards have been specifically delineated geographically (e.g. via mapping or surveying).

§ 48-60.1. Use and Interpretation of FIRMs.

The Floodplain Administrator shall make interpretations, where needed, as to the exact location of SFHAs, 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:
 - 1. Are below the base flood elevation in riverine SFHAs, or below the 1% storm surge elevation in coastal SFHAs, even in areas not delineated as a SFHA on a FIRM, the area shall be considered as SFHA and subject to the requirements of these regulations.
 - 2. Are above the base flood elevation and the area is labelled as a SFHA on the FIRM, the area shall be regulated as SFHA unless the applicant obtains a LOMC that removes the area from the SFHA.
- B. In FEMA-identified SFHAs 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 FIRM and/or a Preliminary FIS has been provided by FEMA:
 - 1. 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.
 - 2. 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 Article III Section 48-47.C and used where no base flood elevations and/or floodway areas are provided on the effective FIRM.
 - 3. 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 the existing flood hazard data provided by FEMA. Such preliminary data may be subject to change and/or appeal to FEMA.

§ 48-61. District Boundary Changes.

The delineation of any of the ~~Floodplain Districts~~ floodplain districts may be revised by Arlington County where natural or man-made changes have occurred and/or where more detailed studies have been conducted or

undertaken by the U.S. Army Corp 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 the Federal Emergency Management Agency.

§ 48-62. Submitting Technical Data

Arlington County's base flood elevations may increase or decrease resulting from physical changes affecting flooding conditions. As soon as practicable, but not later than six (6) months after the date such information becomes available, Arlington County shall notify the Federal Emergency Management Agency 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~~ floodplain management requirements will be based upon current data.

§ 48-62.1. Letters of Map Revision

When development in the Floodplain District will cause or causes a change in the Base Flood Elevation (BFE), the applicant, including State agencies, must notify the Federal Emergency Management Agency (FEMA) by applying – with Arlington County's endorsement – for a Conditional Letter of Map Revision (CLOMR) and then a Letter of Map Revision (LOMR), and receive the approval of FEMA.

Example cases:

1. Any development that causes a rise in the BFEs within the floodway.
2. Any development occurring in Zone AE without a designated floodway, which will cause a rise of more than one foot in the BFE.
3. 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).

§ 48-63. Boundary Disputes, Appeals and Waivers.

A. *Boundary disputes.* Any uncertainty with respect to the boundary of any ~~floodplain district~~ Floodplain District shall be determined by the Director of Environmental Services or his/her designee by scaling and computation from the flood insurance study.

B. *Appeals.* Whenever any person is aggrieved by a decision of the Director of Environmental Services or his/her designee with respect to the interpretation of the provisions of this chapter (except part A of this section), that person shall be entitled to appeal for a waiver of that decision. Such appeal must be made in writing to the County Manager of Arlington County or his/her designee within thirty (30) days after the decision as set forth below.

C. *Waivers.* Whenever any person is aggrieved by a decision of the Director of Environmental Services or his/her designee with respect to the interpretation of the provisions of this chapter (except part A of this section), that person shall be entitled to apply for a waiver of that decision to the County Manager. Such application must be made in writing to the County Manager of Arlington County or his/her designee within thirty (30) days after the decision as set forth below.

Waivers shall be issued only upon (i) a showing of good and sufficient cause, (ii) after the County Manager or his/her designee has determined that failure to grant the waiver would result in exceptional hardship to the applicant, and (iii) after the County Manager or his/her designee has determined that the granting of such waiver 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.

In reviewing applications for waivers, the County Manager of Arlington County or his/her designee shall examine all relevant factors and procedures specified in other ordinances and consider the following applicable factors:

1. The danger to life and property due to increased flood heights or velocities caused by encroachments. No waiver shall be granted for any proposed use, development, or activity within any floodway district that will cause any increase in the one-hundred-year flood elevation.
2. The danger that materials may be swept on to other lands or downstream to the injury of others.
3. The proposed water supply and sanitation systems and the ability of these systems to prevent disease, contamination, and unsanitary conditions.
4. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owners.
5. The importance of the services provided by the proposed facility to the Arlington County.
6. The requirements of the facility for a waterfront location.
7. The availability of alternative locations not subject to flooding for the proposed use.
8. The compatibility of the proposed use with existing development and development anticipated in the foreseeable future.
9. The relationship of the proposed use to the Arlington County Comprehensive Plan and Floodplain Management Program for the area.
10. The safety of access by ordinary and emergency vehicles to the property in time of flood.
11. The expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters expected at the site.
12. 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.
13. The historic nature of a structure. Waivers 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 waiver is the minimum necessary to preserve the historic character and design of the structure.
14. No waiver shall be granted for an Accessory Structure exceeding 600 square feet.
15. Such other factors which are relevant to the purposes of this chapter.

The County Manager of Arlington County or his/her designee may refer any application and accompanying documentation pertaining to any request for a waiver to any engineer or other qualified person or agency for technical assistance, at the cost of the applicant, 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.

Waivers may be issued only after the County Manager of Arlington County or his/her designee has determined that the waiver will be the minimum deviation, as determined by the County Manager of Arlington County or his/her designee, from the requirements necessary to provide relief from hardship to the applicant.

The County Manager of Arlington County or his/her designee shall notify the applicant in writing that the issuance of the waiver to construct a structure below the one-hundred-year flood elevation (a) increases the risks to life and property and (b) will result in increased premium rates for flood insurance. A record shall be maintained by

the Director of Environmental Services of the above notification as well as all waiver actions, including justification for the issuance of the waivers. Any waivers which are issued shall be noted in the annual or biennial report submitted to the Federal Insurance Administrator.

ARTICLE VII.

PENALTIES

§ 48-64 Penalties.

Any person who fails to comply with any of the requirements or provisions of this chapter shall be guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not less than ten dollars (\$10.00) nor more than two thousand five hundred dollars (\$2,500.00) or imprisonment in the Arlington County Jail not exceeding thirty (30) days, in jail or both such fine and imprisonment, for each violation. Each day during which any violation of this chapter continues shall constitute, except where otherwise provided, a separate offense.

In addition to the above penalties, all other actions are hereby reserved, including an action in equity for the proper enforcement of this chapter. The imposition of a fine or penalty for any violation of, or noncompliance with, this chapter 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 time. Any structure constructed, reconstructed, enlarged, altered, or relocated in noncompliance with this chapter may be declared by Arlington County to be a public nuisance and abated as such. Flood insurance may be withheld from structures constructed in violation of this chapter.

ARTICLE VIII.

SEVERABILITY AND COUNTY LIABILITY

§ 48-65. Severability.

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

§ 48-66. County Liability.

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 chapter and any other applicable ordinances and regulations which apply to uses within the jurisdiction of this chapter.

The degree of flood protection sought by the provisions of this chapter 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 chapter does not imply that districts outside the Floodplain District or land uses permitted within such district will be free from flooding or flood damages.

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

BE IT FURTHER ORDAINED that all provisions of Chapter 48 of the Code not otherwise amended hereby shall remain as previously enacted.