Introduced 10·05·2026
Public Hearing 10·19·2026
Council Action 10·30·2026
Executive Action 11·2·2026
Effective Date 1·2·2027

# County Council of Howard County, Maryland

2026 Legislative Session

Legislative Day No. **12**

## Bill No. 61 -2026

Introduced by: The Chairperson at the request of the County Executive

Short Title: Amending Floodplain Provisions – FEMA and ~~MEMA~~ MDE requirements.

Title: AN ACT, in accordance with Federal Emergency Management Agency and Maryland ~~Emergency Management Agency~~ Department of the Environment requirements, updating certain floodplain provisions of the County Code; defining certain terms; setting forth the purpose, authority and findings for County floodplain requirements; clarifying the agencies who review requests for alternative compliance; providing for certain submissions and certain inspections; prohibiting certain development and certain activities in certain Special Flood Hazard Areas, including FEMA Special Flood Hazard Areas and Community Special Flood Hazard Areas; setting the basis for the establishment of Special Flood Hazard Areas; setting forth the duties and responsibilities of the Floodplain Administrator and County Departments and Agencies; providing for certain permits, applications and permit review; imposing certain subdivision and development requirements on Floodplain areas; setting forth standards and conditions and an application process for alternative compliance; updating and defining terms; allowing for certain enforcement; and generally relating to floodplain regulations in Howard County.

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Introduced and read first time Oct 5, 2026. Ordered posted and hearing scheduled.

By order Michelle Harrod
Michelle Harrod, Administrator

Having been posted and notice of time & place of hearing & title of Bill having been published according to Charter, the Bill was read for a second time at a public hearing on Oct 19, 2026.

By order Michelle Harrod
Michelle Harrod, Administrator

This Bill was read the third time on Oct 30, 2026 and Passed ___, Passed with amendments ✓, Failed ___.

By order Michelle Harrod
Michelle Harrod, Administrator

Sealed with the County Seal and presented to the County Executive for approval this 30 day of October, 2026 at 5:00 a.m./p.m.

By order Michelle Harrod
Michelle Harrod, Administrator

Approved/Vetoed by the County Executive Nov. 2, 2026

Calvin Ball, County Executive

NOTE: [[text in brackets]] indicates deletions from existing law; TEXT IN SMALL CAPITALS indicates additions to existing law; ~~Strike-out~~ indicates material deleted by amendment; Underlining indicates material added by amendment

**WHEREAS**, the intent of this Bill is to adopt Howard County's updated Floodplain Management Ordinance based on the Maryland Model Floodplain Ordinance and recent Federal Emergency Management Agency (FEMA) guidance, while preserving and clarifying existing County-specific standards; and

**WHEREAS,** this update supports continued compliance with the National Flood Insurance Program (NFIP), maintains eligibility for FEMA funding, and reflects lessons learned from recent flood events; and

**WHEREAS**, the proposed Bill aligns County code with current Federal and State requirements, incorporates new locally developed floodplain data, and modernizes regulatory language to better protect life, property, and public infrastructure.

**NOW, THEREFORE,**

***Section 1. Be It Enacted*** *by the County Council of Howard County, Maryland, that the Howard County Code is amended as follows:*

*By Repealing and Reenacting:*

*Title 16, Subtitle 7*

*By Amending:*

*Section 3.101. Amendments to the International Building Code, 2024 Edition.*
*Subsection (b)(36) and Subsection (b)(78)*

*Section 16.108. Rules of construction; definitions*
*Subsection (b)(23) and Subsection (32.1)*

*Section 16.115*

*Section 16.133. Storm Drainage.*
*Subsection (d)*

*Section 16.145. Sketch plan; preliminary equivalent sketch plan.*
*Subsection (c)*

*Section 16.146. Preliminary Plan.*
*Subsection (c)*

*Section 16.157. Required information for site development plans*
*Subsection (b)*

*Section 16.1201. Definitions*
*Subsections (v) and (bb)*

*Section 16.1205. Forest Retention Policies.*
*Subsection (b)*

*Section 16.1028. Reforestation and afforestation location priorities, preferred location, and preferred methods.*
*Subsection (a)*

*Section 18.901. Definitions.*

*Section 18.905. Stormwater management design process.*
*Subsection (b).*

## Title 3. Buildings.

## Subtitle 1. Building Code.

**Section 3.101. Amendments to the International Building Code, 2024 Edition.**

(b) *Local Amendments.* The following amendments modify certain provisions of the adopted code.

(36) *Subsection 111.1 Change of occupancy.*

After the first sentence, insert the following:

If there is an approved site development plan and grading has occurred, the Building Official shall not issue a certificate of use and occupancy unless the permittee submits a certification by a registered land surveyor that the site grading and drainage courses are in compliance with the approved site development plan. If there is not an approved site development plan and grading has occurred, the permittee shall submit a certification by a registered land surveyor that the site grading and drainage courses are in compliance with the approved erosion and sediment control plan and grading plan. The certification shall be submitted to the County. The fine grading and soil stabilization may be deferred until the following growing season upon the posting of adequate surety equal to the cost to complete the grading and stabilization. PER TITLE 16, SUBTITLE 7, SEC. 16.702(H) SUBMISSIONS REQUIRED PRIOR TO FINAL INSPECTION, FOR DEVELOPMENT IN DESIGNATED FLOODPLAINS, THE BUILDING OFFICIAL SHALL NOT PERFORM THE FINAL INSPECTION OR ISSUE A CERTIFICATE OF USE AND OCCUPANCY UNLESS THE PERMITTEE SUBMITS AN ELEVATION CERTIFICATE AND OTHER CONSTRUCTION CERTIFICATES AS APPLICABLE: NON-CONVERSION AGREEMENT, NON-RESIDENTIAL FLOODPROOFING CERTIFICATE, ENGINEERED OPENING CERTIFICATE, AND NO-RISE CERTIFICATION.

(78) *Section 3115 Floodplain.*

Add new Section 3115 after Section 3114 as follows:

**Section 3115 Floodplain.**

**3115.1 General.** For the purpose of this Section, the [[floodplain is]] DESIGNATED FLOODPLAINS ARE delineated in title 16, subtitle 7 of the Howard County Code.

**3115.2 Within designated floodplain.**

The construction, reconstruction, modification, alteration, repair, or improvement of buildings, manufactured homes, or other structures located within a designated floodplain shall be done in accordance with the requirements set forth in this section.

**3115.2.1 New construction.** New residential or nonresidential DEVELOPMENT AND construction shall not occur within a designated floodplain.

**Exception 1:** An existing nonconforming structure located within a designated floodplain [[which is destroyed by fire or flood, or]] that sustains substantial damage may be restored to the same size and dimension and in the same location on the same lot as the [[destroyed]]SUBSTANTIALLY DAMAGED structure, provided construction begins within 12 months of the date of [[destruction]]SUBSTANTIAL DAMAGE. Construction shall comply with the elevating and floodproofing requirements of subsection 3115.4 for new construction adjacent to a floodplain. A person shall not intentionally demolish or reconstruct any nonconforming structure. This exception does not apply to manufactured homes. A manufactured home cannot be restored under any condition within a designated floodplain.

**Exception 2:** Transportation networks, utility installations, piers, open pier structures, and open decks approved by the Department of Public Works ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR. Streets, sidewalks, pathways, and utility systems in accordance with the Howard County Design Manual and all other applicable codes, ordinances, resolutions, and regulations.

**3115.2.2 Additions and enlargements.** Existing nonconforming structures located within a designated floodplain shall not be expanded or enlarged.

**3115.2.3 Modifications, alterations, and repairs.** Modifications, alterations, repairs, or improvements that cost less than 50% of the fair market value of the structure may be made to existing nonconforming structures located within a designated floodplain without floodproofing or elevating if the owner demonstrates through a Maryland State registered professional engineer that floodproofing or elevating is impractical.

**3115.3 Substantial improvements within a designated floodplain.** Substantial improvements within a designated floodplain shall meet the standards set forth in this subsection and Title 16, Subtitle 7 of the Howard County Code.

**3115.3.1. Residential.** The lowest floor, including a basement, of substantial improvements to existing nonconforming residential structures located within a designated floodplain shall be elevated to at least [[2]]TWO feet above the [[100-year]]BASE flood elevation.

**3115.3.2. Nonresidential.** The lowest floor, including a basement, of substantial improvements to existing nonconforming nonresidential structures shall be elevated to at

least [[2]]TWO above the [[100-year]]BASE flood elevation or shall be designed so that any area of the building which is lower than [[2]]TWO feet above the [[100-year]]BASE flood elevation, as determined or approved by the Department of Public Works ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR, is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of withstanding applicable hydrostatic, hydrodynamic, impact, soil, and, when applicable, hurricane and tidal wave loading conditions. The water tightness and structural capabilities shall be those described in floodproofing regulations published by the Office of the Chief of Engineers, U.S. Army, Washington, D.C., December 1995, or subsequent revisions, and Section [[16.705(c)]]16.703(D) of the Howard County Code.

**3115.4 Construction adjacent to a designated floodplain.** Where buildings are located adjacent to a designated floodplain the following subsections and Title 16, Subtitle 7 of the Howard County Code shall apply:

**3115.4.1 Residential.** In new construction of residential buildings or additions or substantial improvements to residential buildings, all floors, including those of basement and storage areas, shall be elevated at least [[2]]TWO feet above the [[100-year]]BASE flood level AND SHALL NOT BE LOCATED WITHIN FLOOD PROTECTION SETBACK AREAS.

**3115.4.2 Nonresidential.** In new construction of nonresidential buildings or additions or substantial improvements to nonresidential buildings, either:

(i) All floors (including those of basement and storage areas) shall be elevated at least [[2]]TWO feet above the [[100-year]]BASE flood level AND SHALL NOT BE LOCATED WITHIN FLOOD PROTECTION SETBACK AREAS[[,]] as determined or approved by the Department of [[Public Works]] INSPECTIONS, LICENSES, AND PERMITS ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR; or

(ii) The construction or improvement (including attendant utility or sanitary facilities) shall be designed so that any areas of the building that are lower than [[2]]TWO feet above the [[100-year]]BASE flood elevation AND/OR WITHIN FLOOD PROTECTION SETBACK AREAS, as determined or approved by the Department of [[Public Works]] INSPECTIONS, LICENSES, AND PERMITS ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR, are watertight with walls substantially impermeable to the passage of water and with structural components having the capability of withstanding

applicable hydrostatic, hydrodynamic, impact, soil, and, when applicable, hurricane and tidal wave loading conditions. Electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities associated with the buildings shall be designed or located to prevent water from entering or accumulating within the components during flood conditions. The water tightness and structural capabilities shall be those described in floodproofing regulations, published by the office of the Chief of Engineers, U.S. Army, Washington, D.C., December 1995, or subsequent revisions, and Section [[16.705(c)]]16.703(D) of the Howard County Code.

**3115.4.3. Modifications, alterations or repairs.** Modifications, alterations, repairs, or improvements that costs less than 50% of the fair market value of the structure may be made to existing nonconforming structures located adjacent to a designated floodplain WITHIN FLOOD PROTECTION SETBACK AREAS without floodproofing or elevating.

**3115.4.4. [[Variances]] ALTERNATIVE COMPLIANCE.** [[Variances]]ALTERNATIVE COMPLIANCE to the requirements set forth in this subsection may be granted by the [[Building Official]] HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING, DEPARTMENT OF PUBLIC WORKS, AND DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS in accordance with Section [[16.711]]16.706 of the Howard County Code.

**3115.5 Substantial improvements adjacent to a designated floodplain.** Substantial improvements adjacent to a designated floodplain WITHIN FLOOD PROTECTION SETBACK AREAS shall meet the standards set forth in this subsection and Title 16, Subtitle 7 of the Howard County Code.

**3115.5.1 Residential.** The lowest floor, including a basement, of substantial improvements to existing nonconforming residential structures located adjacent to a designated floodplain WITHIN FLOOD PROTECTION SETBACK AREAS shall be elevated to at least [[2]]TWO feet above the [[100-year]]BASE flood elevation.

**3115.5.2 Nonresidential.** The lowest floor, including a basement, of substantial improvements to existing nonconforming nonresidential structures WITHIN FLOOD PROTECTION SETBACK AREAS AND ALL ELECTRICAL, HEATING, VENTILATION, PLUMBING, AIR-CONDITIONING EQUIPMENT, AND OTHER SERVICE FACILITIES ASSOCIATED WITH THE BUILDINGS SHALL BE [[located adjacent to a designated floodplain shall be]] elevated to at

least [[2]]TWO feet above the [[100-year]]BASE flood elevation or shall be designed so that any area of the building which is lower than [[2]]TWO feet above the [[100-year]]BASE flood elevation, as determined or approved by the Department of [[Public Works]] INSPECTIONS, LICENSES, AND PERMITS ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR, is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of withstanding applicable hydrostatic, hydrodynamic impact, soil, and, when applicable, hurricane and tidal wave loading conditions. Electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities associated with the buildings shall be designed or located so as to prevent water from entering or accumulating within the components during conditions of flooding. The water tightness and structural capabilities shall be those described in floodproofing regulations published by the Office of the Chief of Engineers, U.S. Army, Washington, D.C., December 1995, or subsequent revisions, and Section [[16.705(c)]]16.703(D) of the Howard County Code.

**3115.6 Verification.** For the purpose of verifying compliance with Section 3115.4 for construction adjacent to a designated floodplain, the following shall apply:

(i) When floodproofing by means other than elevating, a document stating that the proposed construction has been adequately designed to withstand the loading conditions stated in subsection 3115.4.2(ii) shall be certified by a professional engineer or architect currently registered in Maryland. This document shall be required prior to issuance of a building permit.

(ii) When floodproofing by elevating is used, the owner shall agree, in writing, to provide a FEMA elevation certificate form 086-0-33, completed by a professional engineer or professional land surveyor currently registered in Maryland, certifying that the as-built lowest floor of the structure is elevated at least [[2]]TWO feet above the [[100-year floodplain]]BASE FLOOD elevation. The agreement shall be made prior to the issuance of the building permit and the completed certification shall be submitted prior to foundation approval by the Building Official.

(iii)Fair market value of a structure shall be established by a recent (within 6 months) formal appraisal from a qualified appraiser. Fair market value shall not include land value.

(iv) Cost to repair or improve a structure shall be established by a recent (within 6 months) written estimate from a licensed contractor and shall include the complete cost of repairs or improvements to the point of use or occupancy.

**3115.7 Definitions.** Notwithstanding Chapter 2 of the International Building Code, the [[following]] definitions SET FORTH IN SECTION 16.701 OF THIS CODE shall apply to Section 3115.0, Floodplain, of this Code: THE FOLLOWING WORDS OR PHRASES ARE DEFINED IN SECTION 16.701 OF THIS CODE.

**Accessory structure.** [[A detached structure on the same parcel or property as the principal structure that has a use that is incidental to the principal structure including, but not limited to, a shed or detached garage.]]

**Adjacent to a floodplain.** [[Sharing a common border with a floodplain.]]

**AGREEMENT TO SUBMIT AN ELEVATION CERTIFICATE.**

**BASE BUILDING.**

**BASE FLOOD.**

**BASE FLOOD ELEVATION (BFE).**

**Basement.** [[An enclosed area that is below grade on all sides.]]

**BUILDING CODES.**

**CRITICAL AND ESSENTIAL FACILITIES.**

**DECLARATION OF LAND RESTRICTION (NON-CONVERSION AGREEMENT).**

**DESIGN MANUAL.**

**DEVELOPMENT.**

**ELEVATION CERTIFICATE.**

**ENCLOSURE BELOW THE LOWEST FLOOR.**

**ENGINEERED OPENING CERTIFICATE.**

**FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA).**

**FLOOD OR FLOODING.**

**FLOOD DAMAGE-RESISTANT MATERIALS.**

**FLOOD INSURANCE RATE MAP (FIRM)FLOOD OPENING.**

**FLOOD PROTECTION ELEVATION.**

**FLOOD PROTECTION SETBACK.**

**FLOOD ZONE.**

**Floodplain.** [[Shall be as delineated in title 16, subtitle 7 of the Howard County Code.]]

**Floodproofing OR FLOODPROOFED.** [[Any combination of additions, changes, or adjustments to a structure which reduce or eliminate flood damage to real estate or improved real property, water or sanitary facilities, or structures and their contents, such that the buildings or structures are 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.]]

**FLOODPROOFING CERTIFICATE.**

**FREE-OF-OBSTRUCTION.**

**FUNCTIONALLY DEPENDENT USE.**

**HIGHEST ADJACENT GRADE.**

**Historic structure.** [[A building listed on the national register of historic places, a state inventory of historic places, or an inventory of historic structures adopted by resolution of the County Council. A historic structure also includes a structure that is certified or preliminarily determined by the United States 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.]]

**LICENSED**

**Lowest floor.** [[The lowest floor or the lowest enclosed area, including a basement. Lowest floor does not include an unfinished or flood resistant enclosure used solely for parking vehicles, building access, or storage in an area other than a basement area. The enclosure shall not be built so as to render the structure in violation of the applicable non-elevation design requirements of subsections 3115.4 and 3115.6 of this Code.]]

**Manufactured home.** [[A manufactured home shall have the meaning set forth in Title 16, Subtitle 7 of the Howard County Code. ]]

**MARKET VALUE.**

**MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE).**

**MIXED-USE STRUCTURE.**

**NATIONAL FLOOD INSURANCE PROGRAM (NFIP).**

**New construction.[[** Structures, including additions and improvements, and the placement of manufactured homes, for which the start of construction commenced on or

after 3/15/1977, the initial effective date of the Howard County Flood Insurance Rate Map, including any subsequent improvements, alterations, modifications, and additions to such structures.

**The repair or replacement of a manufactured home because of substantial damage is considered to be new construction and is prohibited in accordance with Section 3115.2.1 of this Code.]]**

**NO-RISE CERTIFICATION.**

**SPECIAL FLOOD HAZARD AREA (SFHA).**

**START OF CONSTRUCTION.**

**Structure. [[**For purposes of this Subsection 3115 to this Code, shall have the meaning set forth in Title 16, Subtitle 7 of the Howard County Code.]]

**Substantial damage.** [[Damage of any origin sustained by a structure where the cost of returning the structure to its condition prior to damage would equal or exceed 50% of the structure's fair market value before the damage occurred.]]

**Substantial improvement.** [[The repair, reconstruction, or improvement of a building or structure, the cost of which is equal to or greater than 50% of the fair market value of the building or structure prior to damage, improvement, or repair. For the purpose of this definition, "substantial improvement" occurs when the first alteration of a wall, ceiling, floor, or other structural part of the building begins, whether or not that alteration affects the external dimensions of the building or structure. The term does not include any project for improving a building or structure to comply with existing State or local health, sanitary, or housing code requirements which are necessary to assure safe living conditions. This term does not include an alteration of a historic structure provided that the alteration will not preclude the structure's continued designation as a historic structure. ]]

**TEMPORARY STRUCTURE.**

**Variance.** [[The grant of relief from a term of this subtitle.]]

**VIOLATION.**

**3115.8 ALTERNATIVE COMPLIANCE, Variances and waivers.** Except as provided in Section 3115.4 of this Code, [[a]] AN ALTERNATIVE COMPLIANCE, variance or waiver of

this section is not allowed. The [[building official]]HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING, DEPARTMENT OF PUBLIC WORKS, AND DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS shall consider [[a variance]] AN ALTERNATIVE COMPLIANCE in accordance with the provisions of Section [[16.711]]16.706 of the Howard County Code.

**3115.9 Other agencies.** A permit issued by the Building Official under this Subtitle is not valid until all necessary permits for the development are obtained. Receipt of [[federal]]FEDERAL or State permits do not exempt a development from the provisions of this Subtitle.

**3115.10 INSPECTIONS.** ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR, THE DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS SHALL MAKE PERIODIC INSPECTIONS OF DEVELOPMENT PERMITTED IN SPECIAL FLOOD HAZARD AREAS, AT APPROPRIATE TIMES THROUGHOUT THE PERIOD OF CONSTRUCTION IN ORDER TO MONITOR COMPLIANCE. SUCH INSPECTIONS MAY INCLUDE:

(I) STAKE-OUT INSPECTION, TO DETERMINE LOCATION ON THE SITE RELATIVE TO THE FLOOD HAZARD AREA AND DESIGNATED FLOODWAY.

(II) FOUNDATION INSPECTION, UPON PLACEMENT OF THE LOWEST FLOOR AND PRIOR TO FURTHER VERTICAL CONSTRUCTION, TO COLLECT INFORMATION OR CERTIFICATION OF THE ELEVATION OF THE LOWEST FLOOR.

(III) INSPECTION OF ENCLOSURES BELOW THE LOWEST FLOOR, INCLUDING CRAWL/UNDERFLOOR SPACES, TO DETERMINE COMPLIANCE WITH APPLICABLE PROVISIONS.

(IV) UTILITY INSPECTION, UPON INSTALLATION OF SPECIFIED EQUIPMENT AND APPLIANCES, TO DETERMINE APPROPRIATE LOCATION WITH RESPECT TO THE BASE FLOOD ELEVATION.

(V) FINAL INSPECTION PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.

**3115.11 SUBMISSIONS REQUIRED PRIOR TO FINAL INSPECTION.** PURSUANT TO THE AGREEMENT TO SUBMIT AN ELEVATION CERTIFICATE SUBMITTED WITH THE APPLICATION AS REQUIRED IN SECTION 16.702(E)(1)(IX)(A), THE PERMITTEE SHALL HAVE AN ELEVATION

CERTIFICATE PREPARED AND SUBMITTED PRIOR TO FINAL INSPECTION AND ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR ELEVATED STRUCTURES AND MANUFACTURED HOMES, INCLUDING NEW STRUCTURES AND MANUFACTURED HOMES, SUBSTANTIALLY-IMPROVED STRUCTURES AND MANUFACTURED HOMES, AND ADDITIONS TO STRUCTURES AND MANUFACTURED HOMES.

## Title 16. Planning, Zoning and Subdivisions and Land Development Regulations.

## Subtitle 1. Subdivisions and Land Development Regulations.

## Article I. General.

**Section 16.108. Rules of construction; definitions.**

(b) *Definitions.* As used in these regulations, the following terms shall be defined as follows:

(23) *Floodplain* [[means that area which would be inundated by stormwater runoff equivalent to that which would occur from a rainfall of 100-year frequency, assuming total development of the watershed as shown in the general plan of the County. Floodplain determination shall be in accordance with the Design Manual]]SHALL HAVE THE MEANING SET FORTH IN SECTION 16.701 OF THIS CODE.

(32.1) *Net area* means the gross area minus all steep slopes existing at the time of subdivision and the area within the 100-year floodplain INCLUDING ANY SPECIAL FLOOD HAZARD AREA WHICH MAY CONSIST OF FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS.

## Title 16. Subdivision and Land Development Regulations.

## Subtitle 1. Subdivisions and Land Development Regulations.

## Article II. Design Standards and Requirements.

**Section 16.115. Floodplain preservation.**

(a) *Development Restricted in [[100-Year Floodplain (Base Flood Elevation)]]SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS.* Development within the boundaries of the [[100-year floodplain (base

flood elevation)]] SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, shall be pursuant to title 16, subtitle 7 of this Code. Most land within [[base flood elevation]] SPECIAL FLOOD HAZARD AREAS, FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, is considered a protection area (i.e., a stream valley or valuable ecological area or scenic resource) [[which]], WHICH is shown:

(1) In the General Plan of Howard County for conservation status; or

(2) In the master plan of parks for acquisition as a conservation area; or

(3) In the capital improvement program for acquisition as a conservation area.

(b) *Floodplain Protection.* In subdivisions and site development plans containing [[a 100-year floodplain (base flood elevation)]] SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, the floodplain land shall be protected in accordance with one of the following alternatives. Prior to the recordation of the final plat and final acceptance of the construction drawings, a deed description of the floodplain will be provided when requested.

(1) *Deed the floodplain land to the County.* Developers are encouraged to dedicate and deed the land in [[the 100-year floodplain (base flood elevation)]]SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, to Howard County as permanent open space.

(2) *Grant a floodplain easement to Howard County.* If the floodplain is not dedicated to the County, the developer shall grant the County right of entry through a perpetual easement, and shall:

(i) Dedicate and deed the land area within the [[100-year floodplain (base flood elevation)]] SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, in fee simple to a legally constituted property owners association. The property owners association may use the area in any manner consistent with the maintenance and preservation of the area as a floodplain; or

(ii) Include the [[100-year floodplain (base flood elevation)]] SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, within the boundary of the lots in accordance with section

16.120 of this subtitle. The property owner whose lot includes floodplain area may use the area in any manner consistent with the maintenance and preservation of the area as a floodplain.

(c) *Prohibitions on Use of Floodplain Land:*

(1) A person shall not store materials of any kind in a [[floodplain]] SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, either temporarily or permanently. Accordingly, building materials and other debris shall not be stored or discarded in [[floodplains]] SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, UNLESS APPROVED AS A NECESSARY DISTURBANCE UNDER PARAGRAPH (3) OF THIS SUBSECTION .

(2) No clearing, excavating, filling, altering drainage, or impervious paving, may occur on land located in [[a floodplain]] SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, unless [[required or authorized by the Department of Planning and Zoning upon the advice of]] APPROVED AS A NECESSARY DISTURBANCE UNDER PARAGRAPH (3) OF THIS SUBSECTION OR AUTHORIZED THROUGH AN ALTERNATIVE COMPLIANCE PER SECTION 16.104 FOLLOWING THE CRITERIA AS DESCRIBED IN 16.706, APPROVED BY THE DEPARTMENT OF PLANNING AND ZONING, the Department of Inspections, Licenses and Permits, OFFICE OF COMMUNITY SUSTAINABILITY AND the Department of Public Works[[, the Department of Recreation and Parks,]]UPON THE ADVICE OF the Soil Conservation District, or the Maryland Department of the Environment. Any proposed construction of a structure located within [[a floodplain]] SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, shall be subject to the requirements of the Howard County Building Code AND TITLE 16, SUBTITLE 7 OF THE HOWARD COUNTY CODE.

(3) THE ACTIVITIES PROHIBITED BY PARAGRAPHS (1) AND (2) ARE ONLY ALLOWED IN SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, IF THE DEPARTMENT OF PLANNING AND ZONING IN CONSULTATION WITH THE DEPARTMENT OF INSPECTIONS, LICENSES AND

PERMITS AND THE DEPARTMENT OF PUBLIC WORKS DETERMINES BASED ON A DETAILED JUSTIFICATION PROVIDED BY THE DEVELOPER THAT:

(I) IT IS NECESSARY FOR CONSTRUCTION OF PUBLIC OR PRIVATE ROADS, DRIVEWAYS, UTILITIES, TRAILS, PATHWAYS, OR STORMWATER MANAGEMENT FACILITIES WHICH ARE ESSENTIAL FOR REASONABLE DEVELOPMENT OF THE PROPERTY;

(II) THE DESIGN MINIMIZES DISTURBANCE;

(III) THERE IS NO OTHER REASONABLE ALTERNATIVE; AND

(IV) THE COST OF AN ALTERNATIVE IMPROVEMENT SHALL NOT BE A FACTOR IN DECIDING WHETHER THE CRITERIA IN SUBJECT SUBSECTION (1) ABOVE CAN BE MET.

(d) *Delineation on Final Plats and Site Development Plans.* [[Floodplain limits]] SPECIAL FLOOD HAZARD AREA LIMITS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS LIMITS, shall be clearly defined, except for agricultural preservation subdivisions and rural cluster subdivisions where the [[floodplain is]] SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, ARE obviously not critical to the proposed development as defined by the Design Manual nor critical to calculation of forest conservation obligations. Final plats and site development plans shall show the following information:

(1) [[Floodplain]] SPECIAL FLOOD HAZARD AREA, INCLUDING FEMA SPECIAL FLOOD HAZARD AREA AND COMMUNITY SPECIAL FLOOD HAZARD AREA, elevations at every bearing change to be designated along floodplain limits. Elevation shall be designated at not greater than 200-foot horizontal intervals.

(2) Bearings and distances or coordinated values along each line.

(3) The area shall be labeled as "100-year floodplain, drainage, and utility easement".

## Title 16. Subdivision and Land Development Regulations.

## Subtitle 1. Subdivisions and Land Development Regulations.

## Article III. Required Improvements.

**Section 16.133. Storm drainage.**

(d) *Restriction on Construction in* 100-year floodplain INCLUDING ANY SPECIAL FLOOD HAZARD AREA, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS. Construction on land within the 100-year floodplain INCLUDING ANY SPECIAL FLOOD HAZARD AREA, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS shall be subject to the restrictions of section 16.115, "Floodplain Preservation."

## Title 16. Planning, Zoning and Subdivisions and Land Development Regulations.

## Subtitle 1. Subdivisions and Land Development Regulations.

## Article IV. Procedures for filing and processing subdivision applications.

**Section 16.145. Sketch plan; preliminary equivalent sketch plan.**

(c) *Required Information.* A checklist specifying the required information format for sketch plan submission is to be provided by the Department of Planning and Zoning. For all types of subdivisions, except for apartments, the sketch plan, drawn on 24-inch by 36-inch sheets to scale one inch equals 200 feet, or as approved by the Department of Planning and Zoning shall be submitted on a topographic map, accompanied by an application form, checklist, and fee and the following items. Apartment developments shall be drawn at a scale of one inch equals 100 feet or one inch equals 50 feet and shall also provide the information required in paragraph (16) of this subsection. The Department of Planning and Zoning will provide a separate submission checklist for a preliminary equivalent sketch plan that incorporates appropriate requirements from the checklists for both sketch and preliminary plans.

(1) Name and address of developer, owner, engineer, and/or surveyor.

(2) Adjoining property owners, deed references and recorded subdivision names, recording references and adjoining property structures within 200 feet of the proposed property line. Provide information regarding any adjoining undeveloped parcel that is landlocked or has insufficient frontage which may need access through the proposed subdivision.

(3) Development data, including land characteristics, availability of public utilities, existing and proposed individual wells, individual septic systems, and shared sewage disposal facilities, existing and proposed recreation, park and conservation areas, existing and

proposed street systems, scenic roads, existing and proposed stormwater management systems, preliminary lot layout, approximate 100-year floodplain INCLUDING ANY SPECIAL FLOOD HAZARD AREA, WHICH MAY CONSIST OF FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, limits, wetlands and streambanks, wetland and stream buffers or steep slopes, if any.

(4) Vicinity map.

(5) North arrow.

(6) The title block shall be in the lower right-hand corner and include:

(i) Proposed subdivision name which shall not be a duplicate of any other subdivision or development name in the Baltimore Metropolitan Area;

(ii) Scale of plan;

(iii)Location by election districts, County, and State;

(iv)Tax map, parcel number; and

(v) Date.

(7) List of street names which, if approved by the Department of Planning and Zoning, will be reserved for that subdivision.

(8) Existing zoning, number of acres and proposed lots.

(9) Soils map at the scale of the subdivision plan with the boundary plotted and the mapping symbols indicated within the mapping boundaries.

(10) Forest stand delineation as described in subtitle 12 of this title.

(11) Whenever the sketch plan covers only a part of an applicant's contiguous holdings, the applicant shall submit, at the same scale as above, a sketch of the proposed subdivision area, with its proposed street system and an indication of the probable future street and drainage system of the remaining portion of the tract.

(12) The location and approximate age of any burial grounds or existing structures and whether structures are to be retained or removed. A cemetery boundary documentation and accommodation plan shall be submitted, if applicable pursuant to the requirements of subtitle 13, "Cemetery Preservation," of this title.

(13) The phasing schedule, if the subdivision is to be phased.

(14) A traffic study pursuant to the requirements of subtitle 11, "Adequate Public Facilities," of this title.

(15) Additional information which may be required by the review committee to evaluate the plan.

(16) For apartment developments, the sketch plan shall be submitted for the entire acreage of contiguous ownership in accordance with paragraphs (1) through (15) of this subsection and shall include the following additional items:

(i) Approximate location of each building, setbacks from all streets (public or private), property lines, and distances between buildings.

(ii) Number of apartment units in each building.

(iii)Number of parking spaces in each off-street parking area, and total number of parking spaces.

(iv)Interior road or street access, whether public or private, and total area of each.

(17) For development of a site abutting a scenic road, the following are required:

(i) Location of views and viewsheds as seen along the entire frontage of the scenic road, indicated on the plan.

(ii) Photographs, perspective sketches or elevations of the property as necessary to adequately portray the visual character of the scenic road right-of-way and the site as viewed from the scenic road.

(iii)Perspective sketches, elevations or cross-sections of the proposed development as viewed from the scenic road, showing the relationship of development to the scenic character of the landscape as viewed from the road.

(18) Location of overhead utility line maintenance easements that would conflict with proposed landscaping or forest buffers, if any.

(19) For cluster and density receiving subdivisions in the RC or RR zoning districts, a written explanation of how the proposed design meets the objectives set forth in sections 104.F.2, 105.F.2, or 106.F.3 of the zoning regulations.

(20) For residential developments required to hold presubmission community meetings in accordance with section 16.128 of this subtitle, a certification that meeting notices were mailed and a summary of the comments made at the meeting.

(21) For residential development projects requesting green neighborhood allocations, the preliminary equivalent sketch plan shall demonstrate how the project will comply with the green neighborhood site portion of the green neighborhood checklist.

(22) A developer who is proposing the redevelopment of a golf course shall comply with section 16.129 of this subtitle, and, for purposes of this section, the terms "redevelopment" and "golf course" shall have the meaning set forth in section 16.129 of this subtitle.

**Section 16.146. Preliminary plan.**

(c) *Required Information for Preliminary Plan.* A checklist specifying the format for preliminary plan submission shall be provided by the Department of Planning and Zoning. The following information shall be required for all preliminary plans:

(1) The preliminary plan shall be submitted at a scale of one inch equals 100 feet, one inch equals 50 feet or as approved by the Department of Planning and Zoning and shall be clear and legible. The size of a sheet shall be 24 inches by 36 inches. When more than one sheet is required, an index sheet of the same size shall be submitted showing the entire subdivision drawn to scale.

(2) Vicinity map indicating the location of the property with respect to surrounding property and streets to an accurate scale.

(3) The names, liber, and folio of all adjoining unsubdivided property. If a recorded subdivision adjoins the land to be developed, the subdivision name, lot number, block number, and recording number shall be indicated with dashed lines.

(4) Title block shall be in the lower right-hand corner and include:

(i) Proposed subdivision name, which shall not be a duplicate of any subdivision or development name in the Baltimore Metropolitan Area;

(ii) Section number;

(iii)Scale of plan;

(iv)Location by election district, County, and State;

(v) Date; and

(vi)Tax map and parcel number.

(5) Name and address of the owner and/or developer and registered engineer or other professional person licensed in the State of Maryland responsible for the preparation of the plan; signature, and seal of engineer, or other professional person qualified by law

and licensed in the State of Maryland to sign and seal the preliminary plan and corporation (if corporate developer) is required.

(6) North arrow.

(7) Boundary of proposed subdivision clearly indicated by a heavy line with bearings and distances.

(8) All existing pertinent features, either natural or manmade, on-site or within 200 feet of the project property line that may influence the design of the subdivision, including streambanks, wetlands, floodplains, required buffers, soil characteristics, forests or important trees, utility rights-of-way including maintenance easements, individual well and septic systems and shared sewage disposal systems, or existing buildings, structures, and burial grounds. Indicate the approximate age of any structure and whether it is to be retained or removed. A cemetery boundary documentation and accommodation plan shall be submitted, if applicable pursuant to the requirements of subtitle 13, "Cemetery Preservation," of this title.

(9) Existing topography at two-foot contour intervals. Contour lines shall be indicated 200 feet beyond subdivision boundary.

(10) Location, widths, and names of all streets or alleys on or adjoining the subdivision. Existing easements and streets which have been preliminarily approved or recorded but remain unimproved shall be indicated with dashed lines.

(11) The layout of all proposed streets, including widths of rights-of-way and pavements, widths and locations of sidewalks or paths, and general location of street trees.

(12) Location of existing and proposed utilities on or adjoining the tract, indicating approximate pipe sizes and directions of slopes. Include electric and telephone poles, street lights, and fire hydrants. If no hydrants, indicate provisions for fire protection.

(13) The layout of all proposed and existing lots with appropriate dimensions and minimum area in square feet (acres if lot size is greater than 60,000 square feet), section number and area number, and required front, side, and rear setbacks except in the New Town district.

(14) All subdivisions shall be tied to the Maryland Coordinate System if control points and information are within one mile of proposed subdivision. Coordinate values needed on all

points on the boundary of the preliminary plan shall be presented in tabular form. Original monument references may be obtained from the Department of Public Works.

(15) Lot numbers in numerical order throughout the entire subdivision for single-family lots. Apartment, condominium, commercial, industrial and bulk parcels will be designated by letters in alphabetical order.

(16) The approximate location, dimensions, and area of all property proposed to be reserved or temporarily reserved for public use, or reserved for the use of all property owners in the subdivision and the location, dimensions, and purposes of any proposed easements.

(17) Zoning district classification governing the subject tract and adjoining properties.

(18) Proposed drainage and stormwater management systems including the type of structures, drainage easements, proposed changes in topography, the 100-year floodplain INCLUDING ANY SPECIAL FLOOD HAZARD AREA, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, and any deviations from standards. Justification shall be provided for rejecting preferred stormwater management measures in favor of less preferred methods unless predetermined by the Department of Planning and Zoning, after consultation with the Director of Public Works, and in accordance with the Design Manual.

(19) If a private sewage or water supply system or shared sewage disposal system is to be used, location and results of soil percolation tests and locations of water wells are to be indicated in accordance with the specifications of the Maryland State Department of Environment. Signature block for County Health officer should be provided on the percolation plan or the plan sheets showing required well and septic information. No other sheets require signature by the Health Officer.

(20) Total number of lots, area of lots, and parcels, area of public roadway and open space dedications, and total area of subdivision should be listed.

(21) Locations and extent of proposed erosion and sediment control measures, as required, by the Howard County Soil Conservation District shall be shown.

(22) Soil map at the scale of the subdivision plan, with the boundary plotted and the mapping symbols indicated within the mapping boundaries.

(23) Preliminary forest conservation plan as described in subtitle 12 of this title.

(24) The following information shall accompany the submission of the preliminary plan in accordance with requirements contained in the design manual:

(i) Tentative profiles of each street center line and typical cross section of each type of street.

(ii) Preliminary drainage area map and preliminary storm drainage study for the entire area covered by the preliminary subdivision plan. The storm drainage study shall include an evaluation of drainage structures and/or drainage systems, both upstream and downstream, affected by the drainage from the area covered by the preliminary plan as required by section 16.133 of this subtitle.

(iii)Preliminary grading plan showing limits of disturbance, grading for subdivision improvements and mass grading, if proposed. Schematic grading, for residential lots smaller than 20,000 square feet in area shall be shown to demonstrate that units can be accommodated without adverse drainage impacts or disturbance of floodplains, wetland and stream buffers, or proposed forest conservation easements.

(25) A traffic study shall accompany all preliminary plans for subdivisions which are required to pass the test for adequate road facilities pursuant to subtitle 11, "Adequate Public Facilities," of this title and have not yet been tested or have to be tested because of failure to meet a milestone.

(26) Preliminary landscape plan as described in subsection 16.124(a)(3)(i) of this title.

(27) In addition, preliminary plans for apartments shall include:

(i) Approximate location of each building, setbacks from all streets (public or private), property lines, and distances between buildings.

(ii) Number of apartment units in each building.

(iii)Number of parking spaces in each off-street parking area, and total number of parking spaces.

(iv)Interior road or street access, whether public or private, and total area of each.

(28) A developer who is proposing the redevelopment of a golf course shall comply with section 16.129 of this subtitle, and, for purposes of this section, the terms "redevelopment" and "golf course" shall have the meaning set forth in section 16.129 of this subtitle.

**Title 16. Planning, Zoning and Subdivisions and Land Development Regulations.**

**Subtitle 1. Subdivisions and Land Development Regulations.**

**Article V. Procedures for filing and processing site development plan applications.**

**Section 16.157. Required information for site development plans.**

(b) *Information about Existing Conditions:*

(1) Vicinity map showing property location in relation to access roads with scale and north arrow;

(2) Existing topography two-foot contour intervals for proposed parcel and adjacent properties;

(3) Coordinate grids and ticks;

(4) One-hundred-year floodplains INCLUDING ANY SPECIAL FLOOD HAZARD AREA, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS;

(5) Wooded areas and major trees, including a forest stand delineation, if required;

(6) Buildings and structures, including sewage pretreatment structures;

(7) Utilities and fire hydrants;

(8) Existing roads and/or rights-of-way and other paving, scenic roads, trails, and proposed State or County rights-of-way;

(9) Existing and proposed County parks, schools, or other public facilities;

(10) Easements of record with recording reference;

(11) Ponds, wetlands, wetlands buffers, streams and stream buffers;

(12) Howard County survey control stations shall be plotted accurately, identifying any that require relocation;

(13) Accurately plotted lot or parcel showing property lines with bearings and distances;

(14) North arrow;

(15) Identification and zoning of adjacent properties;

(16) The location and approximate age of any existing structure and whether the structure is to be retained or removed;

(17) The boundaries of burial grounds with a certification by the developer that the burial grounds have not and will not be disturbed except as permitted by law, or a certification that there are no burial grounds on the property being developed; a cemetery boundary documentation and accommodation plan shall be submitted, if applicable pursuant to the requirements of subtitle 13, "Cemetery Preservation," of this title;

(18) Legend; and

(19) General information, to include:

(i) Existing zoning;

(ii) Subdivision or final development plan reference, if appropriate;

(iii)Total area of submission;

(iv)Approved street names and numbers; and

(v) Other specific information as may be required by the zoning ordinance, including structure and use setbacks.

(20) A developer who is proposing the redevelopment of a golf course shall comply with section 16.129 of this subtitle, and, for purposes of this section, the terms *redevelopment* and *golf course* shall have the meaning set forth in section 16.129 of this subtitle.

## Title 16. Planning, Zoning and Subdivisions and Land Development Regulations.

### SUBTITLE 7. FLOODPLAIN.

**SECTION 16.700. FINDINGS, STATUTORY AUTHORITY; PURPOSE; APPLICATION AREAS; BASIS FOR ESTABLISHMENT; ABROGATION AND GREATER RESTRICTIONS; INTERPRETATION; LIABILITY DISCLAIMER.**

(A) *FINDINGS.* THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) HAS IDENTIFIED SPECIAL FLOOD HAZARD AREAS WITHIN THE BOUNDARIES OF HOWARD COUNTY, MARYLAND. SPECIAL FLOOD HAZARD AREAS ARE SUBJECT TO PERIODIC INUNDATION WHICH MAY RESULT IN LOSS OF LIFE AND PROPERTY, HEALTH AND SAFETY HAZARDS, DISRUPTION OF COMMERCE AND GOVERNMENTAL SERVICES, EXTRAORDINARY PUBLIC EXPENDITURES FOR FLOOD PROTECTION AND RELIEF, AND IMPAIRMENT OF THE TAX BASE, ALL OF WHICH ADVERSELY AFFECT THE PUBLIC HEALTH, SAFETY AND GENERAL WELFARE. *STRUCTURES* THAT ARE INADEQUATELY

ELEVATED, IMPROPERLY *FLOODPROOFED*, OR OTHERWISE UNPROTECTED FROM FLOOD DAMAGE ALSO CONTRIBUTE TO FLOOD LOSSES.

HOWARD COUNTY, MARYLAND BY RESOLUTION, AGREED TO MEET THE REQUIREMENTS OF THE NATIONAL FLOOD INSURANCE PROGRAM (NFIP) AND WAS ACCEPTED FOR PARTICIPATION IN THE PROGRAM ON MARCH 15, 1977. AS OF THAT DATE, WHICH IS ALSO THE INITIAL EFFECTIVE DATE OF THE HOWARD COUNTY, MARYLAND, FLOOD INSURANCE RATE MAP, ALL DEVELOPMENT AND NEW CONSTRUCTION AS DEFINED HEREIN, ARE TO BE COMPLIANT WITH THESE REGULATIONS.

(B) *STATUTORY AUTHORITY.* THE MARYLAND GENERAL ASSEMBLY, IN TITLE 4 OF THE LAND USE ARTICLE OF THE ANNOTATED CODE OF MARYLAND, HAS ESTABLISHED AS POLICY OF THE STATE THAT THE ORDERLY DEVELOPMENT AND USE OF LAND AND STRUCTURES REQUIRES COMPREHENSIVE REGULATION THROUGH THE IMPLEMENTATION OF PLANNING AND ZONING CONTROL, AND THAT PLANNING AND ZONING CONTROLS SHALL BE IMPLEMENTED BY LOCAL GOVERNMENT IN ORDER TO, AMONG OTHER PURPOSES, SECURE THE PUBLIC SAFETY, PROMOTE HEALTH AND GENERAL WELFARE, AND PROMOTE THE CONSERVATION OF NATURAL RESOURCES. THEREFORE, HOWARD COUNTY ADOPTS FLOODPLAIN MANAGEMENT REGULATIONS AS CONTAINED IN THIS SUBTITLE; TITLE 16, SUBTITLE 1 OF THIS CODE; AND THE HOWARD COUNTY BUILDING CODE. IN THIS SUBTITLE, REFERENCES TO "THESE REGULATIONS" SHALL MEAN THIS SUBTITLE; TITLE 16, SUBTITLE 1 OF THIS CODE AND THE HOWARD COUNTY BUILDING CODE.

(C) *PURPOSE.* IT IS THE PURPOSE OF THESE REGULATIONS IS TO PROMOTE THE PUBLIC HEALTH, SAFETY AND GENERAL WELFARE, AND TO:

(1) PROTECT HUMAN LIFE, HEALTH AND WELFARE;

(2) ENCOURAGE THE UTILIZATION OF APPROPRIATE CONSTRUCTION PRACTICES IN ORDER TO PREVENT OR MINIMIZE FLOOD DAMAGE IN THE FUTURE;

(3) MINIMIZE FLOODING OF WATER SUPPLY AND SANITARY SEWAGE DISPOSAL SYSTEMS;

(4) MAINTAIN NATURAL DRAINAGE;

(5) REDUCE FINANCIAL BURDENS IMPOSED ON THE COMMUNITY, ITS GOVERNMENTAL UNITS AND ITS RESIDENTS, BY DISCOURAGING UNWISE DESIGN AND CONSTRUCTION OF DEVELOPMENT IN AREAS SUBJECT TO FLOODING;

(6) MINIMIZE THE NEED FOR RESCUE AND RELIEF EFFORTS ASSOCIATED WITH FLOODING AND GENERALLY UNDERTAKEN AT THE EXPENSE OF THE GENERAL PUBLIC;

(7) MINIMIZE PROLONGED BUSINESS INTERRUPTIONS;

(8) MINIMIZE DAMAGE TO PUBLIC FACILITIES AND OTHER UTILITIES SUCH AS WATER AND GAS MAINS, ELECTRIC, TELEPHONE AND SEWER LINES, STREETS AND BRIDGES;

(9) REINFORCE THAT THOSE WHO BUILD IN AND OCCUPY SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, SHOULD ASSUME RESPONSIBILITY FOR THEIR ACTIONS;

(10) MINIMIZE THE IMPACT OF DEVELOPMENT ON ADJACENT PROPERTIES WITHIN AND NEAR FLOOD-PRONE AREAS;

(11) PROVIDE THAT THE FLOOD STORAGE AND CONVEYANCE FUNCTIONS OF FLOODPLAINS ARE MAINTAINED;

(12) MINIMIZE THE IMPACT OF DEVELOPMENT ON THE NATURAL AND BENEFICIAL FUNCTIONS OF FLOODPLAINS;

(13) PREVENT FLOODPLAIN USES THAT ARE EITHER HAZARDOUS OR ENVIRONMENTALLY INCOMPATIBLE; AND

(14) MEET COMMUNITY PARTICIPATION REQUIREMENTS OF THE NATIONAL FLOOD INSURANCE PROGRAM AS SET FORTH IN THE CODE OF FEDERAL REGULATIONS (CFR) AT 44 C.F.R. SECTION 59.22.

(D) *AREAS TO WHICH THESE REGULATIONS APPLY.*

THESE REGULATIONS SHALL APPLY TO ALL SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, WITHIN THE JURISDICTION OF HOWARD COUNTY, MARYLAND, AND IDENTIFIED IN SECTION 16.700(E).

(E) *BASIS FOR ESTABLISHING SPECIAL FLOOD HAZARD AREAS AND BFES.*

(1) FOR THE PURPOSES OF THESE REGULATIONS, THE MINIMUM BASIS FOR ESTABLISHING SPECIAL FLOOD HAZARD AREAS AND BASE FLOOD ELEVATIONS IS:

(I) THE FLOOD INSURANCE STUDY FOR HOWARD COUNTY, MARYLAND, AND INCORPORATED AREAS DATED NOVEMBER 6, 2013, OR THE MOST RECENT REVISION THEREOF, AND THE ACCOMPANYING FLOOD INSURANCE RATE MAP(S) AND DIGITAL DATA, AND ALL SUBSEQUENT AMENDMENTS AND REVISIONS TO THE FIRMS.

(II) THE HOWARD COUNTY FLOODPLAINS DEVELOPED BY DETAILED STUDY AND BASE LEVEL ENGINEERING (BLE) METHODS IN FLOOD MODELING AND MAPPING: LITTLE PATUXENT RIVER AND PATAPSCO RIVER LOWER NORTH BRANCH WATERSHEDS, HOWARD COUNTY, MD, DATED JANUARY 2026, AND THE ACCOMPANYING MAPPING, DIGITAL DATA, AND ALL SUBSEQUENT AMENDMENTS AND REVISIONS, INCLUDING STUDIES AND MAPPING FOR ADDITIONAL WATERSHEDS.

(III) THE FIS, FIRMS, AND REPORTS FOR THE HOWARD COUNTY FLOODPLAINS ARE RETAINED ON FILE AND AVAILABLE TO THE PUBLIC AT THE DEPARTMENT OF PUBLIC WORKS, BUREAU OF ENVIRONMENTAL SERVICES, 9801 BROKEN LAND PARKWAY, COLUMBIA, MARYLAND, 21046, AND ON THE COUNTY'S DIGITAL FLOOD INSURANCE RATE MAP WEBSITE: HTTPS://DATA.HOWARDCOUNTYMD.GOV/GDFIRM.

(2) WHERE FIELD SURVEYED TOPOGRAPHY OR DIGITAL TOPOGRAPHY INDICATES THAT GROUND ELEVATIONS ARE BELOW THE CLOSEST APPLICABLE BASE FLOOD ELEVATION, EVEN IN AREAS NOT DELINEATED AS A SPECIAL FLOOD HAZARD ON THE FIRM OR HOWARD COUNTY FLOODPLAINS, THE AREA SHALL BE CONSIDERED AS SPECIAL FLOOD HAZARD AREA.

(3) TO ESTABLISH BASE FLOOD ELEVATIONS IN SPECIAL FLOOD HAZARD AREAS THAT DO NOT HAVE SUCH ELEVATIONS SHOWN ON THE FIRM OR HOWARD COUNTY FLOODPLAINS, THE FLOODPLAIN ADMINISTRATOR MAY PROVIDE THE BEST AVAILABLE DATA FOR BASE FLOOD ELEVATIONS, MAY REQUIRE THE APPLICANT TO OBTAIN AVAILABLE INFORMATION FROM FEDERAL, STATE OR OTHER SOURCES, OR MAY REQUIRE THE APPLICANT TO ESTABLISH SPECIAL FLOOD HAZARD AREAS AND BASE FLOOD ELEVATIONS AS SET FORTH IN SECTION 16.702(C), SECTION 16.702(D), AND SECTION 16.702(E) OF THESE REGULATIONS.

(F) *ABROGATION AND GREATER RESTRICTIONS.* REGULATIONS GOVERNING THE FLOODPLAIN ARE NOT INTENDED TO REPEAL OR ABROGATE ANY EXISTING REGULATIONS AND ORDINANCES, INCLUDING SUBDIVISION REGULATIONS; THE HOWARD COUNTY ZONING REGULATIONS; THE HOWARD COUNTY BUILDING CODE, THIS SUBTITLE; TITLE 16, SUBTITLE 1; OR ANY EXISTING EASEMENTS, COVENANTS, OR DEED RESTRICTIONS. IF A CONFLICT EXISTS BETWEEN THESE REGULATIONS AND ANY OTHER CODE PROVISION, EASEMENT, COVENANT, OR DEED RESTRICTION, THE MORE RESTRICTIVE SHALL GOVERN.

(G) *INTERPRETATION.* IN THE INTERPRETATION AND APPLICATION OF THESE REGULATIONS, ALL PROVISIONS SHALL BE:

(1) CONSIDERED AS MINIMUM REQUIREMENTS;

(2) LIBERALLY CONSTRUED IN FAVOR OF THE GOVERNING BODY; AND,

(3) DEEMED NEITHER TO LIMIT NOR REPEAL ANY OTHER POWERS GRANTED UNDER STATE STATUTES.

NOTES REFERENCING PUBLICATIONS OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY REFER TO THE MOST RECENT EDITION OF THOSE PUBLICATIONS, ARE INTENDED ONLY AS GUIDANCE, AND DO NOT BIND OR ALTER THE AUTHORITY OF THE FLOODPLAIN ADMINISTRATOR TO INTERPRET AND APPLY THESE REGULATIONS.

(H) *WARNING AND DISCLAIMER OF LIABILITY*

THE DEGREE OF FLOOD PROTECTION REQUIRED BY THESE REGULATIONS IS CONSIDERED REASONABLE FOR REGULATORY PURPOSES AND IS BASED ON SCIENTIFIC AND ENGINEERING CONSIDERATIONS. LARGER FLOODS CAN AND WILL OCCUR, AND FLOOD HEIGHTS MAY BE INCREASED BY MANMADE OR NATURAL CAUSES. THESE REGULATIONS DO NOT IMPLY THAT LAND OUTSIDE OF THE SPECIAL FLOOD HAZARD AREAS OR USES THAT ARE PERMITTED WITHIN SUCH AREAS WILL BE FREE FROM FLOODING OR FLOOD DAMAGE.

THESE REGULATIONS SHALL NOT CREATE LIABILITY ON THE PART OF HOWARD COUNTY, MARYLAND, ANY OFFICER OR EMPLOYEE THEREOF, THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) OR THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), FOR ANY FLOOD DAMAGE THAT RESULTS FROM RELIANCE ON THESE REGULATIONS OR ANY ADMINISTRATIVE DECISION LAWFULLY MADE HEREUNDER.

**SECTION 16.701. DEFINITIONS.**

EXCEPT AS SPECIFICALLY DEFINED IN THIS SECTION OR SECTION 3115 OF THE HOWARD COUNTY BUILDING CODE, WORDS OR PHRASES USED IN THESE REGULATIONS SHALL BE INTERPRETED TO HAVE THE MEANING THEY HAVE IN COMMON USAGE AND, WHERE NOT SPECIFICALLY DEFINED, ARE GIVEN THE MOST REASONABLE APPLICATION:

(A) *ACCESSORY STRUCTURE AND AGRICULTURAL STRUCTURE*: A NON-RESIDENTIAL BUILDING OR STRUCTURE ON THE SAME LOT WITH, AND OF A NATURE CUSTOMARILY INCIDENTAL AND SUBORDINATE TO, THE PRINCIPAL STRUCTURE. FOR THE PURPOSES OF THESE FLOODPLAIN

REGULATIONS, THE PERMITTING THRESHOLDS AND EXEMPTIONS FOR ACCESSORY AND AGRICULTURAL STRUCTURES DO NOT APPLY; PROPOSALS FOR ALL NEW CONSTRUCTION OF NEW AND SUBSTANTIALLY IMPROVED ACCESSORY AND AGRICULTURAL STRUCTURES IN SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, REQUIRE PERMITS. ACCESSORY STRUCTURES INCLUDE BUT ARE NOT LIMITED TO DETACHED GARAGES, STORAGE SHEDS, GAZEBOS, PICNIC PAVILIONS, BOATHOUSES, SMALL POLE BARNS, SWIMMING POOLS AND SPAS AND RELATED DECKING, FENCES AND PRIVACY WALLS, EROSION CONTROL STRUCTURES, SPORTS COURTS, CONCRETE SLABS AND PATIOS, AND ON-SITE SEPTIC SYSTEMS. AGRICULTURAL STRUCTURES ARE THOSE USED EXCLUSIVELY IN CONNECTION WITH THE PRODUCTION, HARVESTING, STORAGE, RAISING OR DRYING OF AGRICULTURAL COMMODITIES AND LIVESTOCK, INCLUDING STRUCTURES RELATED TO AQUACULTURE. AGRICULTURAL STRUCTURES INCLUDE BUT ARE NOT LIMITED TO BARNS, LOAFING SHEDS, POULTRY COOPS AND BROODERS, FENCING AND CORRALS, SILOS, EQUIPMENT SHEDS, COLD STORAGE, GREENHOUSES, HOOP HOUSES, PUMP HOUSES, WORKSHOPS, AND FARM STANDS.

(B) *ADJACENT TO A FLOODPLAIN*. PARCELS SHARING A COMMON BORDER WITH OR INTERSECTED BY A SPECIAL FLOOD HAZARD AREA, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS.

(C) *AGREEMENT TO SUBMIT AN ELEVATION CERTIFICATE*: A FORM ON WHICH THE APPLICANT FOR A PERMIT TO CONSTRUCT A BUILDING OR STRUCTURE, TO CONSTRUCT CERTAIN HORIZONTAL ADDITIONS, TO PLACE OR REPLACE A MANUFACTURED HOME, TO SUBSTANTIALLY IMPROVE A BUILDING, STRUCTURE, OR MANUFACTURED HOME, AGREES TO HAVE AN ELEVATION CERTIFICATE PREPARED BY A LICENSED PROFESSIONAL ENGINEER OR LICENSED PROFESSIONAL SURVEYOR, AS SPECIFIED BY THE DIRECTOR OF THE DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR, AND TO SUBMIT THE CERTIFICATE:

(1) UPON PLACEMENT OF THE LOWEST FLOOR AND PRIOR TO FURTHER VERTICAL CONSTRUCTION; AND

(2) PRIOR TO THE FINAL INSPECTION AND ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.

(D) *ALTERATION OF A WATERCOURSE*: FOR THE PURPOSE OF THESE REGULATIONS, ALTERATION OF A WATERCOURSE INCLUDES, BUT IS NOT LIMITED TO WIDENING, DEEPENING OR RELOCATING THE

CHANNEL, INCLUDING EXCAVATION OR FILLING OF THE CHANNEL. ALTERATION OF A WATERCOURSE DOES NOT INCLUDE CONSTRUCTION OF A ROAD, BRIDGE, CULVERT, DAM, OR IN-STREAM POND UNLESS THE CHANNEL IS PROPOSED TO BE REALIGNED OR RELOCATED AS PART OF SUCH CONSTRUCTION.

(E) *AREA OF SHALLOW FLOODING*: A DESIGNATED ZONE AO ON THE FLOOD INSURANCE RATE MAP WITH A 1-PERCENT ANNUAL CHANCE OR GREATER OF FLOODING TO AN AVERAGE DEPTH OF ONE TO THREE FEET WHERE A CLEARLY DEFINED CHANNEL DOES NOT EXIST, WHERE THE PATH OF FLOODING IS UNPREDICTABLE, AND WHERE VELOCITY FLOW MAY BE EVIDENT; SUCH FLOODING IS CHARACTERIZED BY PONDING OR SHEET FLOW.

(F) *BASE BUILDING*: THE BUILDING TO WHICH AN ADDITION IS BEING ADDED. THIS TERM IS USED IN PROVISIONS RELATING TO ADDITIONS.

(G) *BASE FLOOD*: THE FLOOD HAVING A ONE-PERCENT CHANCE OF BEING EQUALED OR EXCEEDED IN ANY GIVEN YEAR; THE BASE FLOOD ALSO IS REFERRED TO AS THE 1-PERCENT ANNUAL CHANCE (100-YEAR) FLOOD.

(H) *BASE FLOOD ELEVATION*: THE WATER SURFACE ELEVATION OF THE BASE FLOOD IN RELATION TO THE DATUM SPECIFIED ON THE COMMUNITY'S FLOOD INSURANCE RATE MAP AND HOWARD COUNTY FLOODPLAINS. IN AREAS OF SHALLOW FLOODING, THE BASE FLOOD ELEVATION IS THE HIGHEST ADJACENT NATURAL GRADE ELEVATION PLUS THE DEPTH NUMBER SPECIFIED IN FEET ON THE FLOOD INSURANCE RATE MAP, OR AT LEAST FOUR (4) FEET IF THE DEPTH NUMBER IS NOT SPECIFIED.

(I) *BASEMENT*: ANY AREA OF THE BUILDING HAVING ITS FLOOR SUBGRADE (BELOW GROUND LEVEL) ON ALL SIDES.

(J) *BUILDING CODE(S)*: THE BUILDING CODE OF HOWARD COUNTY ADOPTED PURSUANT TO SUBTITLE 1, "BUILDING CODE" OF TITLE 3, "BUILDINGS," OF THE HOWARD COUNTY CODE, THE EFFECTIVE MARYLAND BUILDING PERFORMANCE STANDARDS (COMAR 05.02.07), INCLUDING THE BUILDING CODE, RESIDENTIAL CODE, AND EXISTING BUILDING CODE.

(K) *COMMUNITY*: A POLITICAL SUBDIVISION OF THE STATE OF MARYLAND (COUNTY, CITY OR TOWN) THAT HAS AUTHORITY TO ADOPT AND ENFORCE FLOODPLAIN MANAGEMENT REGULATIONS WITHIN ITS JURISDICTIONAL BOUNDARIES.

(L) *CRITICAL AND ESSENTIAL FACILITIES*: BUILDINGS AND OTHER STRUCTURES THAT ARE INTENDED TO REMAIN OPERATIONAL IN THE EVENT OF EXTREME ENVIRONMENTAL LOADING FROM FLOOD,

WIND, SNOW OR EARTHQUAKES. [NOTE: SEE MARYLAND BUILDING PERFORMANCE STANDARDS, SEC. 1602 AND TABLE 1604.5.] CRITICAL AND ESSENTIAL FACILITIES TYPICALLY INCLUDE HOSPITALS, FIRE STATIONS, POLICE STATIONS, STORAGE OF CRITICAL RECORDS, FACILITIES THAT HANDLE OR STORE HAZARDOUS MATERIALS, AND SIMILAR FACILITIES.

(M) *DECLARATION OF LAND RESTRICTION (NONCONVERSION AGREEMENT)*: A FORM SIGNED BY THE OWNER TO AGREE NOT TO CONVERT OR MODIFY IN ANY MANNER THAT IS INCONSISTENT WITH THE TERMS OF THE PERMIT AND THESE REGULATIONS, CERTAIN ENCLOSURES BELOW THE LOWEST FLOOR OF ELEVATED BUILDINGS AND CERTAIN ACCESSORY STRUCTURES. THE FORM REQUIRES THE OWNER TO RECORD IT ON THE PROPERTY DEED TO INFORM FUTURE OWNERS OF THE RESTRICTIONS.

(N) *DESIGN MANUAL*. HOWARD COUNTY'S TECHNICAL STANDARDS, APPROVED BY RESOLUTION OF THE COUNTY COUNCIL, FOR DESIGN, CONSTRUCTION AND INSPECTION OF BRIDGES, ROADS, STORM DRAINAGE STRUCTURES, STORMWATER MANAGEMENT SYSTEMS, SIDEWALKS, WALKWAYS, PARKING AREAS, TRAFFIC CONTROL DEVICES, WATER AND SEWER FACILITIES, AND OTHER IMPROVEMENTS.

(O) *DEVELOPMENT*: ANY MANMADE CHANGE TO IMPROVED OR UNIMPROVED REAL ESTATE, INCLUDING BUT NOT LIMITED TO BUILDINGS OR OTHER STRUCTURES INCLUDING ACCESSORY STRUCTURES AND AGRICULTURAL STRUCTURES, PLACEMENT OF MANUFACTURED HOMES, MINING, DREDGING, FILLING, GRADING, PAVING, EXCAVATION, DRILLING OPERATIONS, STORAGE OF EQUIPMENT OR MATERIALS, AND ANY AGRICULTURAL EARTH-MOVING PRACTICES THAT ALTER THE TOPOGRAPHY, DRAINAGE, OR CROSS-SECTIONAL PROFILE OF THE LAND SUCH AS GRADING AND FILLING, EXCAVATION AND DREDGING, DRAINAGE ALTERATION, STREAMBANK ALTERATIONS, LEVEE AND BERM CONSTRUCTION, AND LAND CLEARING AND GRUBBING. ROUTINE AGRICULTURAL PRACTICES SUCH AS TILLING, PLANTING, AND HARVESTING ARE CONSIDERED NORMAL LAND MAINTENANCE AND ARE NOT CONSIDERED DEVELOPMENT, PROVIDED THEY DO NOT INVOLVE SIGNIFICANT CHANGES TO THE LAND'S SURFACE ELEVATION.

(P) *ELEVATION CERTIFICATE*: FEMA FORM ON WHICH SURVEYED ELEVATIONS AND OTHER DATA PERTINENT TO A PROPERTY AND A BUILDING ARE IDENTIFIED AND WHICH SHALL BE COMPLETED BY A LICENSED PROFESSIONAL LAND SURVEYOR OR A LICENSED PROFESSIONAL ENGINEER, AS SPECIFIED BY THE DIRECTOR OF THE DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS

ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR. WHEN USED TO DOCUMENT THE HEIGHT ABOVE GRADE OF BUILDINGS IN SPECIAL FLOOD HAZARD AREAS FOR WHICH BASE FLOOD ELEVATION DATA ARE NOT AVAILABLE, THE ELEVATION CERTIFICATE SHALL BE COMPLETED IN ACCORDANCE WITH THE INSTRUCTIONS ISSUED BY FEMA. [NOTE: FEMA FORM 086-0-33 AND INSTRUCTIONS ARE AVAILABLE ONLINE AT HTTPS://WWW.FEMA.GOV/MEDIA-LIBRARY/ASSETS/DOCUMENTS/160.]

(Q) *ENCLOSURE BELOW THE LOWEST FLOOR*: AN UNFINISHED OR FLOOD-RESISTANT ENCLOSURE THAT IS LOCATED BELOW AN ELEVATED BUILDING, IS SURROUNDED BY WALLS ON ALL SIDES, AND IS USABLE SOLELY FOR PARKING OF VEHICLES, BUILDING ACCESS OR STORAGE, IN AN AREA OTHER THAN A BASEMENT AREA, PROVIDED THAT SUCH ENCLOSURE IS BUILT IN ACCORDANCE WITH THE APPLICABLE DESIGN REQUIREMENTS SPECIFIED IN THESE REGULATIONS. ALSO SEE "LOWEST FLOOR."

(R) *FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)*: THE FEDERAL AGENCY WITH THE OVERALL RESPONSIBILITY FOR ADMINISTERING THE NATIONAL FLOOD INSURANCE PROGRAM.

(S) *FLOOD OR FLOODING*: A GENERAL AND TEMPORARY CONDITION OF PARTIAL OR COMPLETE INUNDATION OF NORMALLY DRY LAND AREAS FROM:

(1) THE OVERFLOW OF INLAND OR TIDAL WATERS, AND/OR

(2) THE UNUSUAL AND RAPID ACCUMULATION OR RUNOFF OF SURFACE WATERS FROM ANY SOURCE.

(T) *FLOOD DAMAGE-RESISTANT MATERIALS*: ANY CONSTRUCTION MATERIAL THAT IS CAPABLE OF WITHSTANDING DIRECT AND PROLONGED CONTACT WITH FLOODWATERS WITHOUT SUSTAINING ANY DAMAGE THAT REQUIRES MORE THAN COSMETIC REPAIR. [NOTE: SEE NFIP TECHNICAL BULLETIN #2, "FLOOD DAMAGE-RESISTANT MATERIALS REQUIREMENTS."]

(U) *FLOOD INSURANCE RATE MAP (FIRM)*: AN OFFICIAL MAP ON WHICH THE FEDERAL EMERGENCY MANAGEMENT AGENCY HAS DELINEATED SPECIAL FLOOD HAZARD AREAS TO INDICATE THE MAGNITUDE AND NATURE OF FLOOD HAZARDS, TO DESIGNATE APPLICABLE FLOOD ZONES, AND TO DELINEATE FLOODWAYS, IF APPLICABLE. FIRMS THAT HAVE BEEN PREPARED IN DIGITAL FORMAT OR CONVERTED TO DIGITAL FORMAT ARE REFERRED TO AS DIGITAL FIRMS (DFIRM).

(V) *FLOOD INSURANCE STUDY (FIS)*: THE OFFICIAL REPORT IN WHICH THE FEDERAL EMERGENCY MANAGEMENT AGENCY HAS PROVIDED FLOOD PROFILES, FLOODWAY INFORMATION, AND THE WATER SURFACE ELEVATIONS.

(W) *FLOOD OPENING*: A FLOOD OPENING (NON-ENGINEERED) IS AN OPENING THAT IS USED TO MEET THE PRESCRIPTIVE REQUIREMENT OF 1 SQUARE INCH OF NET OPEN AREA FOR EVERY SQUARE FOOT OF ENCLOSED AREA. AN ENGINEERED FLOOD OPENING IS AN OPENING THAT IS DESIGNED AND CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER OR LICENSED ARCHITECT AS MEETING CERTAIN PERFORMANCE CHARACTERISTICS, INCLUDING PROVIDING AUTOMATIC ENTRY AND EXIT OF FLOODWATERS; THIS CERTIFICATION REQUIREMENT MAY BE SATISFIED BY AN INDIVIDUAL CERTIFICATION FOR A SPECIFIC STRUCTURE OR ISSUANCE OF AN EVALUATION REPORT BY THE ICC EVALUATION SERVICE, INC. [NOTE: SEE NFIP TECHNICAL BULLETIN #1, "OPENINGS IN FOUNDATION WALLS AND WALLS OF ENCLOSURES."]

(X) *FLOOD PROTECTION ELEVATION*: THE BASE FLOOD ELEVATION PLUS TWO (2) FEET OF FREEBOARD. FREEBOARD IS A FACTOR OF SAFETY THAT COMPENSATES FOR UNCERTAINTY IN FACTORS THAT COULD CONTRIBUTE TO FLOOD HEIGHTS GREATER THAN THE HEIGHT CALCULATED FOR A SELECTED SIZE FLOOD AND FLOODWAY CONDITIONS, SUCH AS WAVE ACTION, OBSTRUCTED BRIDGE OPENINGS, DEBRIS AND ICE JAMS, CLIMATE CHANGE, AND THE HYDROLOGIC EFFECT OF URBANIZATION IN A WATERSHED.

(Y) *FLOOD PROTECTION SETBACK*: A DISTANCE MEASURED PERPENDICULAR TO THE SPECIAL FLOOD HAZARD AREA, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, THAT DELINEATES AN AREA TO BE LEFT UNDISTURBED TO MINIMIZE FUTURE FLOOD DAMAGE AND TO RECOGNIZE THE POTENTIAL FOR BANK EROSION ON PARCELS INTERSECTED BY SPECIAL FLOOD HAZARD AREAS. ALONG NONTIDAL WATERS OF THE STATE IN HOWARD COUNTY, MARYLAND, THE FLOOD PROTECTION SETBACK IS DETERMINED BY THE DEPARTMENT OF PLANNING AND ZONING AND THE DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS ON A CASE-BY-CASE BASIS RELATIVE TO SITE-SPECIFIC CONDITIONS, INCLUDING:

(1) THE EXISTENCE OF WETLANDS, WETLAND BUFFERS, STREAMS, STREAM BUFFERS, AND STEEP SLOPES

(2) THE REQUIREMENTS SET FORTH IN SECTION 16.116 OF THIS CODE. .

(Z) *FLOOD ZONE*: A DESIGNATION FOR AREAS THAT ARE SHOWN ON FLOOD INSURANCE RATE MAPS AND HOWARD COUNTY FLOODPLAINS:

(1) *ZONE A*: FEMA SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1-PERCENT ANNUAL CHANCE (100-YEAR) FLOOD; BASE FLOOD ELEVATIONS MAY OR MAY NOT BE DETERMINED.

(2) *ZONE AE AND ZONE A1-30*: FEMA SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1-PERCENT ANNUAL CHANCE (100-YEAR) FLOOD; BASE FLOOD ELEVATIONS ARE DETERMINED; FLOODWAYS MAY OR MAY NOT BE DETERMINED.

(3) *ZONE AH AND ZONE AO*: AREAS OF SHALLOW FLOODING, WITH FLOOD DEPTHS OF 1 TO 3 FEET (USUALLY AREAS OF PONDING OR SHEET FLOW ON SLOPING TERRAIN), WITH OR WITHOUT BFES OR DESIGNATED FLOOD DEPTHS.

(4) *ZONE B AND ZONE X (SHADED)*: AREAS SUBJECT TO INUNDATION BY THE 0.2-PERCENT ANNUAL CHANCE (500-YEAR) FLOOD; AND AREAS SUBJECT TO THE 1-PERCENT ANNUAL CHANCE (100-YEAR) FLOOD WITH CONTRIBUTING DRAINAGE AREA LESS THAN 1 SQUARE MILE. SHADED X ZONES SUBJECT TO THE 1-PERCENT ANNUAL CHANCE (100-YEAR) FLOOD WITH CONTRIBUTING DRAINAGE AREA LESS THAN 1 SQUARE MILE ARE CONSIDERED COMMUNITY SPECIAL FLOOD HAZARD AREAS IN HOWARD COUNTY, MARYLAND.

(5) *ZONE C AND ZONE X (UNSHADED)*: AREAS OUTSIDE OF ZONES DESIGNATED A, AE, A1-30, AO, VE, V1-30, B, AND X (SHADED).

(6) *ZONE VE AND ZONE V1-30*: FEMA SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1-PERCENT ANNUAL CHANCE (100-YEAR) FLOOD AND SUBJECT TO HIGH VELOCITY WAVE ACTION.

(7) HOWARD COUNTY 30-ACRE 100-YEAR FLOODPLAIN: COMMUNITY SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1-PERCENT ANNUAL CHANCE (100-YEAR) FLOOD.

(8) HOWARD COUNTY 30-ACRE 500-+YEAR FLOODPLAIN: AREAS SUBJECT TO INUNDATION BY THE 0.2-PERCENT ANNUAL CHANCE (500-YEAR) FLOOD.

(AA) *FLOODPLAIN*: ANY LAND AREA SUSCEPTIBLE TO BEING INUNDATED BY WATER FROM ANY SOURCE (SEE DEFINITION OF "FLOOD" OR "FLOODING"). EACH REFERENCE IN THE HOWARD COUNTY CODE OR THE HOWARD COUNTY ZONING REGULATIONS TO THE "100-YEAR FLOODPLAIN" SHALL MEAN SPECIAL FLOOD HAZARD AREA INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS.

(AB) *FLOODPROOFING OR FLOODPROOFED*: ANY COMBINATION OF STRUCTURAL AND NONSTRUCTURAL ADDITIONS, CHANGES, OR ADJUSTMENTS TO BUILDINGS OR STRUCTURES WHICH REDUCE OR ELIMINATE FLOOD DAMAGE TO REAL ESTATE OR IMPROVED REAL PROPERTY, WATER AND SANITARY FACILITIES, STRUCTURES AND THEIR CONTENTS, SUCH THAT THE

BUILDINGS OR STRUCTURES ARE 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. [NOTE: STATE REGULATIONS AT COMAR 26.17.04.11(B)(7) DO NOT ALLOW NEW NONRESIDENTIAL BUILDINGS IN NONTIDAL WATERS OF THE STATE TO BE FLOODPROOFED.]

(AC) *FLOODPROOFING CERTIFICATE*: FEMA FORM THAT IS TO BE COMPLETED, SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER OR LICENSED ARCHITECT TO CERTIFY THAT THE DESIGN OF FLOODPROOFING AND PROPOSED METHODS OF CONSTRUCTION ARE IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF SECTION 16.704(E)(2) OF THIS SUBTITLE. [NOTE: FEMA FORM 086-0-34 IS AVAILABLE ONLINE AT HTTPS://WWW.FEMA.GOV/MEDIA-LIBRARY/ASSETS/DOCUMENTS/2748.]

(AD) *FLOODWAY*: THE CHANNEL OF A RIVER OR OTHER WATERCOURSE AND THE ADJACENT LAND AREAS THAT MUST BE RESERVED IN ORDER TO PASS THE BASE FLOOD DISCHARGE SUCH THAT THE CUMULATIVE INCREASE IN THE WATER SURFACE ELEVATION OF THE BASE FLOOD DISCHARGE IS NO MORE THAN A DESIGNATED HEIGHT, WHICH IS 0.0 FEET IN HOWARD COUNTY. WHEN SHOWN ON A FIRM, THE FLOODWAY IS REFERRED TO AS THE "DESIGNATED FLOODWAY."

(AE) *FREE-OF-OBSTRUCTION*: A TERM THAT DESCRIBES OPEN FOUNDATIONS (PILINGS, COLUMNS, OR PIERS) WITHOUT ATTACHED ELEMENTS OR FOUNDATION COMPONENTS THAT WOULD OBSTRUCT THE FREE PASSAGE OF FLOODWATERS AND WAVES BENEATH STRUCTURES THAT ARE ELEVATED ON SUCH FOUNDATIONS. [NOTE: SEE NFIP TECHNICAL BULLETIN #5, "FREE-OF-OBSTRUCTION REQUIREMENTS."]

(AF) *FUNCTIONALLY DEPENDENT USE*: A USE WHICH CANNOT PERFORM ITS INTENDED PURPOSE UNLESS IT IS LOCATED OR CARRIED OUT IN CLOSE PROXIMITY TO WATER; THE TERM INCLUDES ONLY DOCKING FACILITIES, PORT FACILITIES THAT ARE NECESSARY FOR THE LOADING AND UNLOADING OF CARGO OR PASSENGERS, AND SHIP BUILDING AND SHIP REPAIR FACILITIES, BUT DOES NOT INCLUDE LONG-TERM STORAGE OR RELATED MANUFACTURING FACILITIES.

(AG) *HIGHEST ADJACENT GRADE*: THE HIGHEST NATURAL ELEVATION OF THE GROUND SURFACE, PRIOR TO CONSTRUCTION, NEXT TO THE PROPOSED FOUNDATION OF A STRUCTURE.

(AH) *HISTORIC STRUCTURE*:

(1) ANY STRUCTURE THAT IS:

(I) INDIVIDUALLY LISTED IN THE NATIONAL REGISTER OF HISTORIC PLACES (A LISTING MAINTAINED BY THE U.S. DEPARTMENT OF THE INTERIOR);

(II) DETERMINED BY THE SECRETARY OF THE INTERIOR OR THE MARYLAND STATE HISTORIC PRESERVATION OFFICER AS MEETING THE REQUIREMENTS FOR INDIVIDUAL LISTINGS ON THE NATIONAL REGISTER;

(III) CERTIFIED OR PRELIMINARILY DETERMINED BY THE SECRETARY OF THE INTERIOR AS CONTRIBUTING TO THE HISTORICAL SIGNIFICANCE OF AN HISTORIC DISTRICT LISTED IN THE NATIONAL REGISTER OF HISTORIC PLACES; OR

(IV) CERTIFIED OR PRELIMINARILY DETERMINED BY THE SECRETARY OF THE INTERIOR AS CONTRIBUTING TO THE HISTORICAL SIGNIFICANCE OF AN HISTORIC DISTRICT THAT MEETS THE REQUIREMENTS FOR LISTING IN THE NATIONAL REGISTER OF HISTORIC PLACES.

(2) IF HOWARD COUNTY, MARYLAND, BECOMES A CERTIFIED LOCAL GOVERNMENT WITH THE NATIONAL PARK SERVICE, HISTORIC STRUCTURES ALSO INCLUDE ANY STRUCTURE THAT IS INDIVIDUALLY LISTED ON THE INVENTORY OF HISTORIC PLACES MAINTAINED BY HOWARD COUNTY, MARYLAND, WHOSE HISTORIC PRESERVATION PROGRAM HAS BEEN CERTIFIED BY THE MARYLAND HISTORICAL TRUST OR THE SECRETARY OF THE INTERIOR.

(AI) *HYDROLOGIC AND HYDRAULIC ENGINEERING ANALYSES*: ANALYSES PERFORMED BY A LICENSED PROFESSIONAL ENGINEER, IN ACCORDANCE WITH STANDARD ENGINEERING PRACTICES THAT ARE ACCEPTED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (NONTIDAL WETLANDS & WATERWAYS) AND FEMA, USED TO DETERMINE THE BASE FLOOD, OTHER FREQUENCY FLOODS, FLOOD ELEVATIONS, FLOODWAY INFORMATION AND BOUNDARIES, AND FLOOD PROFILES.

(AJ) *LETTER OF MAP CHANGE (LOMC)*: A LETTER OF MAP CHANGE IS AN OFFICIAL FEMA DETERMINATION, BY LETTER, THAT AMENDS OR REVISES AN EFFECTIVE FLOOD INSURANCE RATE MAP OR FLOOD INSURANCE STUDY. LETTERS OF MAP CHANGE INCLUDE:

(1) LETTER OF MAP AMENDMENT (LOMA): AN AMENDMENT BASED ON TECHNICAL DATA SHOWING THAT A PROPERTY WAS INCORRECTLY INCLUDED IN A DESIGNATED FEMA SPECIAL FLOOD HAZARD AREA. A LOMA AMENDS THE CURRENT EFFECTIVE FLOOD INSURANCE RATE MAP AND ESTABLISHES THAT A SPECIFIC PROPERTY OR STRUCTURE IS NOT LOCATED IN A FEMA SPECIAL FLOOD HAZARD AREA.

(2) LETTER OF MAP REVISION (LOMR): A REVISION BASED ON TECHNICAL DATA THAT MAY SHOW CHANGES TO EFFECTIVE FEMA FLOOD INSURANCE RATE MAP OR FLOOD INSURANCE STUDY FLOOD ZONES, FLOOD ELEVATIONS, FLOODPLAIN AND FLOODWAY DELINEATIONS, AND PLANIMETRIC FEATURES. A LETTER OF MAP REVISION BASED ON FILL (LOMR-F), IS A DETERMINATION THAT A STRUCTURE OR PARCEL OF LAND HAS BEEN ELEVATED BY FILL ABOVE THE BASE FLOOD ELEVATION AND IS, THEREFORE, NO LONGER EXPOSED TO FLOODING ASSOCIATED WITH THE BASE FLOOD. IN ORDER TO QUALIFY FOR THIS DETERMINATION, THE FILL MUST HAVE BEEN PERMITTED AND PLACED IN ACCORDANCE WITH THE COMMUNITY'S FLOODPLAIN MANAGEMENT REGULATIONS.

(3) CONDITIONAL LETTER OF MAP REVISION (CLOMR): A FORMAL REVIEW AND COMMENT AS TO WHETHER A PROPOSED FLOOD PROTECTION PROJECT OR OTHER PROJECT COMPLIES WITH THE MINIMUM NFIP REQUIREMENTS FOR SUCH PROJECTS WITH RESPECT TO DELINEATION OF FEMA SPECIAL FLOOD HAZARD AREAS. A CONDITIONAL LETTER OF MAP REVISION BASED ON FILL (CLOMR-F) IS A DETERMINATION THAT A PARCEL OF LAND OR PROPOSED STRUCTURE THAT WILL BE ELEVATED BY FILL WOULD NOT BE INUNDATED BY THE BASE FLOOD IF FILL IS PLACED ON THE PARCEL AS PROPOSED OR THE STRUCTURE IS BUILT AS PROPOSED. A CLOMR DOES NOT REVISE THE EFFECTIVE FLOOD INSURANCE RATE MAP OR FLOOD INSURANCE STUDY; UPON SUBMISSION AND APPROVAL OF CERTIFIED AS-BUILT DOCUMENTATION, A LETTER OF MAP REVISION MAY BE ISSUED BY FEMA, TO REVISE THE EFFECTIVE FIRM.

(AK) *LICENSED:* AS USED IN THESE REGULATIONS, LICENSED REFERS TO PROFESSIONALS WHO ARE AUTHORIZED TO PRACTICE IN THE STATE OF MARYLAND BY ISSUANCE OF LICENSES BY THE MARYLAND BOARD OF ARCHITECTS, MARYLAND BOARD OF PROFESSIONAL ENGINEERS, MARYLAND BOARD OF PROFESSIONAL LAND SURVEYORS, AND THE MARYLAND REAL ESTATE APPRAISERS AND HOME INSPECTORS COMMISSION.

(AL) *LOWEST FLOOR*: THE LOWEST FLOOR OF THE LOWEST ENCLOSED AREA (INCLUDING BASEMENT) OF A BUILDING OR STRUCTURE; THE FLOOR OF AN ENCLOSURE BELOW THE LOWEST FLOOR IS NOT THE LOWEST FLOOR PROVIDED THE ENCLOSURE IS CONSTRUCTED IN ACCORDANCE WITH THESE REGULATIONS, INCLUDING AN UNFINISHED OR FLOOD RESISTANT ENCLOSURE USED SOLELY FOR PARKING VEHICLES, BUILDING ACCESS, OR STORAGE IN AN AREA OTHER THAN A BASEMENT AREA. THE LOWEST FLOOR OF A MANUFACTURED HOME IS THE

BOTTOM OF THE LOWEST HORIZONTAL SUPPORTING MEMBER (LONGITUDINAL CHASSIS FRAME BEAM). THE ENCLOSURE SHALL NOT BE BUILT SO AS TO RENDER THE STRUCTURE IN VIOLATION OF THE APPLICABLE NON-ELEVATION DESIGN REQUIREMENTS OF SUBSECTIONS 3115.4 AND 3115.6 OF THE HOWARD COUNTY BUILDING CODE.

(AM) *MANUFACTURED HOME*: A STRUCTURE, TRANSPORTABLE IN ONE OR MORE SECTIONS, WHICH IS BUILT ON A PERMANENT CHASSIS AND IS DESIGNED FOR USE WITH OR WITHOUT A PERMANENT FOUNDATION WHEN CONNECTED TO THE REQUIRED UTILITIES. THE TERM MANUFACTURED HOME DOES NOT INCLUDE A RECREATIONAL VEHICLE.

(AN) *MARKET VALUE*: THE PRICE AT WHICH A PROPERTY WILL CHANGE HANDS BETWEEN A WILLING BUYER AND A WILLING SELLER, NEITHER PARTY BEING UNDER COMPULSION TO BUY OR SELL AND BOTH HAVING REASONABLE KNOWLEDGE OF RELEVANT FACTS. FOR THE PURPOSES OF THESE REGULATIONS, THE MARKET VALUE OF A BUILDING IS DETERMINED BY A LICENSED REAL ESTATE APPRAISER OR THE MOST RECENT, FULL PHASED-IN ASSESSMENT VALUE OF THE BUILDING (IMPROVEMENT) DETERMINED BY THE MARYLAND DEPARTMENT OF ASSESSMENTS AND TAXATION.

(AO) *MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE)*: A PRINCIPAL DEPARTMENT OF THE STATE OF MARYLAND THAT IS CHARGED WITH, AMONG OTHER RESPONSIBILITIES, THE COORDINATION OF THE NATIONAL FLOOD INSURANCE PROGRAM IN MARYLAND (NFIP STATE COORDINATOR) AND THE ADMINISTRATION OF REGULATORY PROGRAMS FOR DEVELOPMENT AND CONSTRUCTION THAT OCCUR WITHIN THE WATERS OF THE STATE, INCLUDING NONTIDAL WETLANDS, NONTIDAL WATERS AND FLOODPLAINS, AND STATE AND PRIVATE TIDAL WETLANDS (TIDAL WETLANDS). UNLESS OTHERWISE SPECIFIED, "MDE" REFERS TO THE DEPARTMENT'S WETLANDS AND WATERWAYS PROGRAM.

(AP) *MIXED-USE STRUCTURE*: ANY STRUCTURE THAT IS USED OR INTENDED FOR USE FOR A MIXTURE OF NONRESIDENTIAL AND RESIDENTIAL USES IN THE SAME STRUCTURE.

(AQ) *NATIONAL FLOOD INSURANCE PROGRAM (NFIP)*: THE PROGRAM AUTHORIZED BY THE U.S. CONGRESS IN 42 U.S.C. §§4001 - 4129. THE NFIP MAKES FLOOD INSURANCE COVERAGE AVAILABLE IN COMMUNITIES THAT AGREE TO ADOPT AND ENFORCE MINIMUM REGULATORY REQUIREMENTS FOR DEVELOPMENT IN AREAS PRONE TO FLOODING (SEE DEFINITION OF "SPECIAL FLOOD HAZARD AREA").

(AR) *NEW CONSTRUCTION*: STRUCTURES, INCLUDING ADDITIONS AND IMPROVEMENTS, AND THE PLACEMENT OF MANUFACTURED HOMES, FOR WHICH THE START OF CONSTRUCTION COMMENCED ON OR AFTER MARCH 15, 1977, THE INITIAL EFFECTIVE DATE OF THE HOWARD COUNTY, MARYLAND, FLOOD INSURANCE RATE MAP, INCLUDING ANY SUBSEQUENT IMPROVEMENTS, ALTERATIONS, MODIFICATIONS, AND ADDITIONS TO SUCH STRUCTURES. THE REPAIR OR REPLACEMENT OF A MANUFACTURED HOME BECAUSE OF SUBSTANTIAL DAMAGE IS CONSIDERED TO BE NEW CONSTRUCTION AND IS PROHIBITED IN ACCORDANCE WITH SECTION 3115.2.1 OF THE BUILDING CODE.

(AS) *NFIP STATE COORDINATOR*: SEE MARYLAND DEPARTMENT OF THE ENVIRONMENT.

(AT) *NONTIDAL WATERS OF THE STATE*: SEE "WATERS OF THE STATE." AS USED IN THESE REGULATIONS, "NONTIDAL WATERS OF THE STATE" REFERS TO ANY STREAM OR BODY OF WATER WITHIN THE STATE THAT IS SUBJECT TO STATE REGULATION, INCLUDING THE "100-YEAR FREQUENCY FLOODPLAIN OF FREE-FLOWING WATERS." COMAR 26.17.04 STATES THAT "THE LANDWARD BOUNDARIES OF ANY TIDAL WATERS SHALL BE DEEMED COTERMINOUS WITH THE WETLANDS BOUNDARY MAPS ADOPTED PURSUANT TO ENVIRONMENT ARTICLE, §16-301, ANNOTATED CODE OF MARYLAND." THEREFORE, THE BOUNDARY BETWEEN THE TIDAL AND NONTIDAL WATERS OF THE STATE IS THE TIDAL WETLANDS BOUNDARY.

(AU) *NO-RISE CERTIFICATION*. AN ENCROACHMENT REVIEW THAT MUST BE SUBMITTED WHEN ANY NEW CONSTRUCTION, SUBSTANTIAL IMPROVEMENT, OR REPAIR FOR A SUBSTANTIALLY DAMAGED BUILDING IS PROPOSED IN OR ADJACENT TO THE SPECIAL FLOOD HAZARD AREA (SFHA). THIS CERTIFICATION CERTIFIES THAT A DEVELOPMENT PROJECT WILL NOT AFFECT FLOOD HEIGHTS UPSTREAM, DOWNSTREAM, OR ADJACENT TO THE PROJECT SITE. THE PERMISSIBLE RISE FOR ANY SINGLE ENCROACHMENT IS ZERO FEET. THE CERTIFICATION MUST BE SUPPORTED BY TECHNICAL DATA AND HYDRAULIC MODELING.

(AV) *PERSON*: AN INDIVIDUAL OR GROUP OF INDIVIDUALS, CORPORATION, PARTNERSHIP, ASSOCIATION, OR ANY OTHER ENTITY, INCLUDING STATE AND LOCAL GOVERNMENTS AND AGENCIES.

(AW) *RECREATIONAL VEHICLE*: A VEHICLE THAT IS BUILT ON A SINGLE CHASSIS, 400 SQUARE FEET OR LESS WHEN MEASURED AT THE LARGEST HORIZONTAL PROJECTION, DESIGNED TO BE SELF-PROPELLED OR PERMANENTLY TOWABLE BY A LIGHT DUTY TRUCK, AND DESIGNED PRIMARILY

NOT FOR USE AS A PERMANENT DWELLING, BUT AS TEMPORARY LIVING QUARTERS FOR RECREATIONAL, CAMPING, TRAVEL, OR SEASONAL USE.

(AX) *REPETITIVE LOSS STRUCTURE:* MEANS A STRUCTURE COVERED UNDER AN NFIP FLOOD INSURANCE POLICY THAT:

(1) HAS INCURRED *FLOOD*-RELATED DAMAGE ON 2 OR MORE OCCASIONS WITHIN ANY ROLLING 10-YEAR PERIOD, IN WHICH THE COST OF REPAIRS AT THE TIME OF EACH SUCH FLOOD EVENT, ON AVERAGE, EQUALED OR EXCEEDED 25% OF THE VALUE OF THE STRUCTURE BEFORE THE DAMAGE OCCURRED; AND

(2) AT THE TIME OF THE SECOND INCIDENCE OF *FLOOD* RELATED DAMAGE, THE CONTRACT FOR *FLOOD* INSURANCE CONTAINS INCREASED COST OF COMPLIANCE COVERAGE.

(AY) *SEVERE REPETITIVE LOSS STRUCTURE:* MEANS A STRUCTURE THAT IS COVERED UNDER AN NFIP *FLOOD* INSURANCE POLICY AND HAS INCURRED *FLOOD*-RELATED DAMAGE:

(1) FOR WHICH 4 OR MORE SEPARATE CLAIMS PAYMENTS HAVE BEEN MADE UNDER *FLOOD* INSURANCE COVERAGE, WITH THE AMOUNT OF EACH CLAIM (INCLUDING BUILDING AND CONTENTS PAYMENTS) EXCEEDING $5,000, AND WITH THE CUMULATIVE AMOUNT OF SUCH CLAIMS PAYMENTS EXCEEDING $20,000; OR

(2) FOR WHICH AT LEAST 2 SEPARATE *FLOOD* INSURANCE CLAIMS PAYMENTS (BUILDING PAYMENTS ONLY) HAVE BEEN MADE, WITH THE CUMULATIVE AMOUNT OF SUCH CLAIMS EXCEEDING THE VALUE OF THE INSURED STRUCTURE.

(AZ) *SPECIAL FLOOD HAZARD AREA (SFHA):* THE LAND IN THE FLOODPLAIN SUBJECT TO A ONE-PERCENT OR GREATER CHANCE OF FLOODING IN ANY GIVEN YEAR. IN HOWARD COUNTY, MARYLAND, SPECIAL FLOOD HAZARD AREAS INCLUDE FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS. FEMA SPECIAL FLOOD HAZARD AREAS ARE DESIGNATED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY IN *FLOOD INSURANCE STUDIES* AND ON *FLOOD INSURANCE RATE MAPS* AS ZONES A, AE, AH, AO, A130, AND A99, AND ZONES VE AND V1-30. COMMUNITY SPECIAL FLOOD HAZARD AREAS ARE DESIGNED BY HOWARD COUNTY AS 1) FEMA SHADED X ZONES FOR 100-YEAR FLOODPLAINS WITH DRAINAGE AREAS LESS THAN 1 SQUARE-MILE DESIGNED BY FEMA IN *FLOOD INSURANCE STUDIES* AND ON *FLOOD INSURANCE RATE MAPS*, AND 2) AREAS SHOWN ON OTHER FLOOD MAPS THAT ARE IDENTIFIED IN SECTION 16.700(E) OF THIS SUBTITLE INCLUDING HOWARD COUNTY 30-ACRE 100-YEAR FLOODPLAINS.

(BA) *START OF CONSTRUCTION*: THE DATE THE BUILDING PERMIT WAS ISSUED, PROVIDED THE ACTUAL START OF CONSTRUCTION, REPAIR, RECONSTRUCTION, REHABILITATION, ADDITION PLACEMENT, OR OTHER IMPROVEMENT WAS WITHIN 180 DAYS OF THE PERMIT DATE. THE ACTUAL START MEANS EITHER THE FIRST PLACEMENT OF PERMANENT CONSTRUCTION OF A STRUCTURE ON A SITE, SUCH AS THE POURING OF SLAB OR FOOTINGS, THE INSTALLATION OF PILES, THE CONSTRUCTION OF COLUMNS, OR ANY WORK BEYOND THE STAGE OF EXCAVATION; OR THE PLACEMENT OF A MANUFACTURED HOME ON A FOUNDATION. PERMANENT CONSTRUCTION DOES NOT INCLUDE LAND PREPARATION, SUCH AS CLEARING, GRADING AND FILLING; NOR DOES IT INCLUDE THE INSTALLATION OF STREETS 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 STRUCTURES, SUCH AS GARAGES OR SHEDS NOT OCCUPIED AS DWELLING UNITS OR NOT PART OF THE MAIN STRUCTURE. FOR SUBSTANTIAL IMPROVEMENTS, THE ACTUAL START OF CONSTRUCTION MEANS THE FIRST ALTERATION OF ANY WALL, CEILING, FLOOR, OR OTHER STRUCTURAL PART OF A BUILDING, WHETHER OR NOT THAT ALTERATION AFFECTS THE EXTERNAL DIMENSIONS OF THE BUILDING.

(BB) *STRUCTURE:* THAT WHICH IS BUILT OR CONSTRUCTED; SPECIFICALLY, A WALLED AND ROOFED BUILDING, INCLUDING A GAS OR LIQUID STORAGE TANK THAT IS PRINCIPALLY ABOVE GROUND, AS WELL AS A MANUFACTURED HOME AND ACCESSORY STRUCTURES.

(BC) *SUBSTANTIAL DAMAGE*: DAMAGE OF ANY ORIGIN SUSTAINED BY A BUILDING OR STRUCTURE WHEREBY THE COST OF RESTORING THE BUILDING OR STRUCTURE TO ITS BEFORE DAMAGED CONDITION WOULD EQUAL OR EXCEED 50 PERCENT OF THE MARKET VALUE OF THE BUILDING OR STRUCTURE BEFORE THE DAMAGE OCCURRED. ALSO USED AS "SUBSTANTIALLY DAMAGED" STRUCTURES. REPETITIVE LOSS STRUCTURES THAT ARE REPETITIVELY DAMAGED, EXPERIENCING 2 FLOOD EVENTS IN 10 YEARS WHERE REPAIRS AVERAGED 25% OR MORE OF THE MARKET VALUE, ARE CONSIDERED SUBSTANTIALLY DAMAGED. [NOTE: SEE "SUBSTANTIAL IMPROVEMENT/SUBSTANTIAL DAMAGE DESK REFERENCE" (FEMA P-758).]

(BD) *SUBSTANTIAL IMPROVEMENT*: ANY RECONSTRUCTION, REHABILITATION, ADDITION, OR OTHER IMPROVEMENT OF A BUILDING OR STRUCTURE TAKING PLACE DURING A PERIOD OF 5 CONSECUTIVE YEARS, THE CUMULATIVE, THE COST OF WHICH EQUALS OR EXCEEDS 50 PERCENT OF THE MARKET VALUE OF THE BUILDING OR STRUCTURE BEFORE THE START OF CONSTRUCTION

OF THE IMPROVEMENT. THE TERM INCLUDES STRUCTURES WHICH HAVE INCURRED REPETITIVE LOSS OR SUBSTANTIAL DAMAGE, REGARDLESS OF THE ACTUAL REPAIR WORK PERFORMED. THE TERM DOES NOT, HOWEVER, INCLUDE EITHER:

(1) ANY PROJECT FOR IMPROVEMENT OF A BUILDING OR 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 PRIOR TO SUBMISSION OF AN APPLICATION FOR A PERMIT AND WHICH ARE THE MINIMUM NECESSARY TO ASSURE SAFE LIVING CONDITIONS; OR

(2) ANY ALTERATION OF A HISTORIC STRUCTURE, PROVIDED THAT THE ALTERATION WILL NOT PRECLUDE THE STRUCTURE'S CONTINUED DESIGNATION AS A HISTORIC STRUCTURE.

[NOTE: SEE "SUBSTANTIAL IMPROVEMENT/SUBSTANTIAL DAMAGE DESK REFERENCE" (FEMA P-758).]

(BE) *TEMPORARY STRUCTURE*: A STRUCTURE INSTALLED, USED, OR ERECTED FOR A PERIOD OF LESS THAN 180 DAYS.

(BF) *VARIANCE*: A GRANT OF RELIEF FROM THE STRICT APPLICATION OF ONE OR MORE REQUIREMENTS OF THESE REGULATIONS. IN HOWARD COUNTY, MARYLAND, A VARIANCE OF THE FLOODPLAIN REGULATIONS IS KNOWN AS AN ALTERNATIVE COMPLIANCE.

(BG) *VIOLATION*: ANY CONSTRUCTION OR DEVELOPMENT IN A SPECIAL FLOOD HAZARD AREA THAT IS BEING PERFORMED WITHOUT AN ISSUED PERMIT. THE FAILURE OF A BUILDING, STRUCTURE, OR OTHER DEVELOPMENT FOR WHICH A PERMIT IS ISSUED TO BE FULLY COMPLIANT WITH THESE REGULATIONS AND THE CONDITIONS OF THE ISSUED PERMIT. A BUILDING, STRUCTURE, OR OTHER DEVELOPMENT WITHOUT THE REQUIRED DESIGN CERTIFICATIONS, THE ELEVATION CERTIFICATE, OR OTHER EVIDENCE OF COMPLIANCE REQUIRED IS PRESUMED TO BE A VIOLATION UNTIL SUCH TIME AS THE REQUIRED DOCUMENTATION IS PROVIDED.

(BH) *WATERCOURSE*: THE CHANNEL, INCLUDING CHANNEL BANKS AND BED, OF NONTIDAL WATERS OF THE STATE.

(BI) *WATERS OF THE STATE*: [SEE ENVIRONMENT ARTICLE, TITLE 5, SUBTITLE 1, ANNOTATED CODE OF MARYLAND.] WATERS OF THE STATE INCLUDE:

(1) BOTH SURFACE AND UNDERGROUND WATERS WITHIN THE BOUNDARIES OF THE STATE SUBJECT TO ITS JURISDICTION;

(2) THAT PORTION OF THE ATLANTIC OCEAN WITHIN THE BOUNDARIES OF THE STATE;

(3) THE CHESAPEAKE BAY AND ITS TRIBUTARIES;

(4) ALL PONDS, LAKES, RIVERS, STREAMS, PUBLIC DITCHES, TAX DITCHES, AND PUBLIC DRAINAGE SYSTEMS WITHIN THE STATE, OTHER THAN THOSE DESIGNED AND USED TO COLLECT, CONVEY, OR DISPOSE OF SANITARY SEWAGE; AND

(5) THE FLOODPLAIN OF FREE-FLOWING WATERS DETERMINED BY MDE ON THE BASIS OF THE 100-YEAR FLOOD FREQUENCY.

**SECTION 16.702. ADMINISTRATION.**

(A) *DESIGNATION OF THE FLOODPLAIN ADMINISTRATOR.* THE DIRECTOR OF THE DEPARTMENT OF PUBLIC WORKS IS HEREBY APPOINTED TO ADMINISTER AND IMPLEMENT THESE REGULATIONS AND IS REFERRED TO HEREIN AS THE FLOODPLAIN ADMINISTRATOR. THE FLOODPLAIN ADMINISTRATOR MAY:

(1) DELEGATE DUTIES AND RESPONSIBILITIES SET FORTH IN THESE REGULATIONS TO QUALIFIED TECHNICAL PERSONNEL, PLAN EXAMINERS, INSPECTORS, AND OTHER EMPLOYEES IN THE DEPARTMENT OF PLANNING AND ZONING, DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, AND THE DEPARTMENT OF PUBLIC WORKS.

(2) ENTER INTO A WRITTEN AGREEMENT OR WRITTEN CONTRACT WITH ANOTHER MARYLAND COMMUNITY OR PRIVATE SECTOR ENTITY TO ADMINISTER SPECIFIC PROVISIONS OF THESE REGULATIONS. ADMINISTRATION OF ANY PART OF THESE REGULATIONS BY ANOTHER ENTITY SHALL NOT RELIEVE THE COMMUNITY OF ITS RESPONSIBILITIES PURSUANT TO THE PARTICIPATION REQUIREMENTS OF THE NATIONAL FLOOD INSURANCE PROGRAM AS SET FORTH IN THE CODE OF FEDERAL REGULATIONS (CFR) AT 44 CFR SECTION 59.22.

(B) *DUTIES AND RESPONSIBILITIES OF THE FLOODPLAIN ADMINISTRATOR.* ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR; DUTIES OF THE DEPARTMENT OF PLANNING AND ZONING, THE DEPARTMENT OF PUBLIC WORKS AND THE DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS SHALL INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:

(1) DEPARTMENT OF PLANNING AND ZONING AND DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS: REVIEW APPLICATIONS FOR PERMITS TO DETERMINE WHETHER PROPOSED ACTIVITIES WILL BE LOCATED IN FLOOD HAZARD AREAS.

(2) DEPARTMENT OF PLANNING AND ZONING AND DEPARTMENT OF PUBLIC WORKS: INTERPRET FLOODPLAIN BOUNDARIES AND PROVIDE AVAILABLE BASE FLOOD ELEVATION AND FLOOD HAZARD INFORMATION.

(3) DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS: REVIEW APPLICATIONS TO DETERMINE WHETHER PROPOSED ACTIVITIES WILL BE REASONABLY SAFE FROM FLOODING AND REQUIRE NEW CONSTRUCTION AND SUBSTANTIAL IMPROVEMENTS TO MEET THE REQUIREMENTS OF THESE REGULATIONS.

(4) DEPARTMENT OF PLANNING AND ZONING, DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, AND DEPARTMENT OF PUBLIC WORKS: 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 MDE 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 NONTIDAL WATERS OF THE STATE.

(5) DEPARTMENT OF PLANNING AND ZONING AND DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS: VERIFY THAT APPLICANTS PROPOSING AN ALTERATION OF A WATERCOURSE HAVE NOTIFIED ADJACENT COMMUNITIES AND MDE (NFIP STATE COORDINATOR);

(6) DEPARTMENT OF PUBLIC WORKS: AND VERIFY THAT APPLICANTS PROPOSING AN ALTERATION OF A WATERCOURSE HAVE SUBMITTED COPIES OF SUCH NOTIFICATIONS TO FEMA.

(7) DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS: 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.

(8) DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS: 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.

(9) DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS AND DEPARTMENT OF PUBLIC WORKS: REVIEW ELEVATION CERTIFICATES AND REQUIRE INCOMPLETE OR DEFICIENT CERTIFICATES TO BE CORRECTED.

(10) DEPARTMENT OF PUBLIC WORKS: SUBMIT TO FEMA, OR REQUIRE APPLICANTS TO SUBMIT TO FEMA, DATA AND INFORMATION NECESSARY TO MAINTAIN FIRMS, INCLUDING HYDROLOGIC AND HYDRAULIC ENGINEERING ANALYSES PREPARED BY OR FOR HOWARD COUNTY, MARYLAND, WITHIN SIX MONTHS AFTER SUCH DATA AND INFORMATION BECOMES AVAILABLE IF THE ANALYSES INDICATE CHANGES IN BASE FLOOD ELEVATIONS OR BOUNDARIES.

(11) MAINTAIN AND PERMANENTLY KEEP RECORDS THAT ARE NECESSARY FOR THE ADMINISTRATION OF THESE REGULATIONS, INCLUDING:

(I) DEPARTMENT OF PUBLIC WORKS: DOCUMENTATION, DATA, AND MAPPING FOR HOWARD COUNTY FLOODPLAINS, FLOOD INSURANCE STUDIES, FLOOD INSURANCE RATE MAPS (INCLUDING HISTORIC STUDIES AND MAPS AND CURRENT EFFECTIVE STUDIES AND MAPS) AND LETTERS OF MAP CHANGE; AND

(II) DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS: 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, OTHER REQUIRED DESIGN CERTIFICATIONS, ALTERNATIVE COMPLIANCES, AND RECORDS OF ENFORCEMENT ACTIONS TAKEN TO CORRECT VIOLATIONS OF THESE REGULATIONS.

(12) DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS: ENFORCE THE PROVISIONS OF THESE REGULATIONS, INVESTIGATE VIOLATIONS, ISSUE NOTICES OF VIOLATIONS OR STOP WORK ORDERS, AND REQUIRE PERMIT HOLDERS TO TAKE CORRECTIVE ACTION.

(13) DEPARTMENT OF PLANNING AND ZONING, DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, AND DEPARTMENT OF PUBLIC WORKS: REVIEW EACH APPLICATION FOR AN ALTERNATIVE COMPLIANCE AND PREPARE A STAFF REPORT AND RECOMMENDATION AS APPLICABLE.

(14) DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS: ADMINISTER THE REQUIREMENTS RELATED TO PROPOSED WORK ON EXISTING BUILDINGS:

(I) 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.

(II) MAKE REASONABLE EFFORTS TO NOTIFY OWNERS OF SUBSTANTIALLY DAMAGED STRUCTURES OF THE NEED TO OBTAIN A PERMIT TO REPAIR, REHABILITATE, OR RECONSTRUCT, AND PROHIBIT THE NON-COMPLIANT REPAIR OF SUBSTANTIALLY DAMAGED BUILDINGS EXCEPT FOR TEMPORARY EMERGENCY PROTECTIVE MEASURES NECESSARY TO SECURE A PROPERTY OR STABILIZE A BUILDING OR STRUCTURE TO PREVENT ADDITIONAL DAMAGE.

(15) DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS: UNDERTAKE, AS DETERMINED APPROPRIATE BY THE FLOODPLAIN ADMINISTRATOR DUE TO THE CIRCUMSTANCES, OTHER ACTIONS WHICH MAY INCLUDE BUT ARE NOT LIMITED TO: ISSUING PRESS RELEASES, PUBLIC SERVICE ANNOUNCEMENTS, AND OTHER PUBLIC INFORMATION MATERIALS RELATED TO PERMIT REQUESTS AND REPAIR OF DAMAGED STRUCTURES; COORDINATING WITH OTHER FEDERAL, STATE, AND LOCAL AGENCIES TO ASSIST WITH SUBSTANTIAL DAMAGE DETERMINATIONS; PROVIDING OWNERS OF DAMAGED STRUCTURES INFORMATION RELATED TO THE PROPER REPAIR OF DAMAGED STRUCTURES IN SPECIAL FLOOD HAZARD AREAS; AND ASSISTING PROPERTY OWNERS WITH DOCUMENTATION NECESSARY TO FILE CLAIMS FOR INCREASED COST OF COMPLIANCE (ICC) COVERAGE UNDER NFIP FLOOD INSURANCE POLICIES.

(16) DEPARTMENT OF PUBLIC WORKS: NOTIFY THE FEDERAL EMERGENCY MANAGEMENT AGENCY WHEN THE CORPORATE BOUNDARIES OF HOWARD COUNTY, MARYLAND, HAVE BEEN MODIFIED AND:

(I) PROVIDE A MAP THAT CLEARLY DELINEATES THE NEW CORPORATE BOUNDARIES OR THE NEW AREA FOR WHICH THE AUTHORITY TO REGULATE PURSUANT TO THESE REGULATIONS HAS EITHER BEEN ASSUMED OR RELINQUISHED THROUGH ANNEXATION; AND

(II) IF THE FIRM FOR ANY ANNEXED AREA INCLUDES SPECIAL FLOOD HAZARD AREAS THAT HAVE FLOOD ZONES THAT HAVE REGULATORY REQUIREMENTS THAT ARE NOT SET FORTH IN THESE REGULATIONS, PREPARE AMENDMENTS TO THESE REGULATIONS TO ADOPT THE FIRM AND APPROPRIATE REQUIREMENTS, AND SUBMIT THE AMENDMENTS

TO THE GOVERNING BODY FOR ADOPTION; SUCH ADOPTION SHALL TAKE PLACE WITHIN SIX MONTHS OF THE DATE OF ANNEXATION AND A COPY OF THE AMENDED REGULATIONS SHALL BE PROVIDED TO MDE (NFIP STATE COORDINATOR) AND FEMA.

(17) DEPARTMENT OF PUBLIC WORKS: UPON THE REQUEST OF FEMA, COMPLETE AND SUBMIT A REPORT CONCERNING PARTICIPATION IN THE NFIP WHICH MAY REQUEST INFORMATION REGARDING THE NUMBER OF BUILDINGS IN THE SFHA, NUMBER OF PERMITS ISSUED FOR DEVELOPMENT IN THE SFHA, AND NUMBER OF ALTERNATIVE COMPLIANCES ISSUED FOR DEVELOPMENT IN THE SFHA.

(C) *USE AND INTERPRETATION OF FIRMS AND HOWARD COUNTY FLOODPLAINS.* ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR, THE DEPARTMENT OF PUBLIC WORKS, THE DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS AND DEPARTMENT OF PLANNING AND ZONING, AS APPLICABLE, SHALL MAKE INTERPRETATIONS, WHERE NEEDED, AS TO THE EXACT LOCATION OF SPECIAL FLOOD HAZARD AREAS, FLOODPLAIN BOUNDARIES, AND FLOODWAY BOUNDARIES. THE FOLLOWING SHALL APPLY TO THE USE AND INTERPRETATION OF FIRMS AND THEIR DATA AND HOWARD COUNTY FLOODPLAINS AND THEIR DATA:

(1) WHERE FIELD SURVEYED TOPOGRAPHY INDICATES THAT GROUND ELEVATIONS:

(I) ARE BELOW THE BASE FLOOD ELEVATION, EVEN IN AREAS NOT DELINEATED AS A SPECIAL FLOOD HAZARD AREA ON A FIRM OR HOWARD COUNTY FLOODPLAIN, THE AREA SHALL BE CONSIDERED AS SPECIAL FLOOD HAZARD AREA AND SUBJECT TO THE REQUIREMENTS OF THESE REGULATIONS;

(II) ARE ABOVE THE BASE FLOOD ELEVATION, THE AREA SHALL BE REGULATED AS SPECIAL FLOOD HAZARD AREA UNLESS THE APPLICANT OBTAINS A LETTER OF MAP CHANGE THAT REMOVES THE AREA FROM THE SPECIAL FLOOD HAZARD AREA.

(2) IN FEMA-IDENTIFIED SPECIAL FLOOD HAZARD AREAS WHERE BASE FLOOD ELEVATION AND FLOODWAY DATA HAVE NOT BEEN IDENTIFIED AND IN AREAS WHERE FEMA HAS NOT IDENTIFIED SPECIAL FLOOD HAZARD AREAS, ANY OTHER FLOOD HAZARD DATA AVAILABLE FROM A FEDERAL, STATE, OR OTHER SOURCE, INCLUDING HOWARD COUNTY FLOODPLAINS, SHALL BE REVIEWED AND REASONABLY USED.

(3) BASE FLOOD ELEVATIONS AND DESIGNATED FLOODWAY BOUNDARIES ON FIRMS AND IN FISS, OR ON HOWARD COUNTY FLOODPLAINS, 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.

(4) 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, OR ON HOWARD COUNTY FLOODPLAINS.

(5) IF A PRELIMINARY FLOOD INSURANCE RATE MAP AND/OR A PRELIMINARY FLOOD INSURANCE STUDY HAS BEEN PROVIDED BY FEMA:

(I) UPON THE ISSUANCE OF A LETTER OF FINAL DETERMINATION BY FEMA, IF THE PRELIMINARY FLOOD HAZARD DATA IS MORE RESTRICTIVE THAN THE EFFECTIVE DATA, IT SHALL BE USED AND SHALL REPLACE THE FLOOD HAZARD DATA PREVIOUSLY PROVIDED FROM FEMA FOR THE PURPOSES OF ADMINISTERING THESE REGULATIONS.

(II) PRIOR TO THE ISSUANCE OF A LETTER OF FINAL DETERMINATION BY FEMA, THE USE OF PRELIMINARY FLOOD HAZARD DATA SHALL BE DEEMED THE BEST AVAILABLE DATA PURSUANT TO SECTION 16.700(E)(3) OF THIS SUBTITLE AND USED WHERE NO BASE FLOOD ELEVATIONS AND/OR FLOODWAY AREAS ARE PROVIDED ON THE EFFECTIVE FIRM.

(III) PRIOR TO ISSUANCE OF A LETTER OF FINAL DETERMINATION BY FEMA, THE USE OF PRELIMINARY FLOOD HAZARD DATA IS PERMITTED WHERE THE PRELIMINARY BASE FLOOD ELEVATIONS, FLOODPLAIN OR FLOODWAY BOUNDARIES EXCEED THE BASE FLOOD ELEVATIONS AND/OR DESIGNATED FLOODWAY WIDTHS IN EXISTING FLOOD HAZARD DATA PROVIDED BY FEMA. SUCH PRELIMINARY DATA MAY BE SUBJECT TO CHANGE AND/OR APPEAL TO FEMA.

(D) *PERMITS REQUIRED AND EXPIRATION.*

(1) IT SHALL BE UNLAWFUL FOR ANY PERSON TO BEGIN ANY DEVELOPMENT OR CONSTRUCTION WHICH IS WHOLLY WITHIN, PARTIALLY WITHIN, OR IN CONTACT WITH ANY FLOOD HAZARD AREA ESTABLISHED IN SECTION 16.700(E), OF THIS SUBTITLE INCLUDING BUT NOT LIMITED TO: FILLING; GRADING; CONSTRUCTION OF NEW STRUCTURES; THE SUBSTANTIAL IMPROVEMENT OF BUILDINGS OR STRUCTURES, INCLUDING REPAIR OF SUBSTANTIAL DAMAGE; PLACEMENT OR REPLACEMENT OF MANUFACTURED HOMES, INCLUDING SUBSTANTIAL IMPROVEMENT OR REPAIR OF SUBSTANTIAL DAMAGE OF MANUFACTURED HOMES; ERECTING OR INSTALLING A TEMPORARY STRUCTURE, OR ALTERATION OF A

WATERCOURSE, UNTIL ALL REQUIRED PERMITS ARE OBTAINED FROM THE HOWARD COUNTY, MARYLAND, DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS. NO SUCH PERMIT SHALL BE ISSUED UNTIL THE REQUIREMENTS OF THESE REGULATIONS HAVE BEEN MET.

(2) IN ADDITION TO THE PERMITS REQUIRED IN PARAGRAPH (1), APPLICANTS FOR PERMITS IN NONTIDAL WATERS OF THE STATE ARE ADVISED TO CONTACT MDE. UNLESS WAIVED BY MDE, PURSUANT TO CODE OF MARYLAND REGULATIONS 26.17.04, CONSTRUCTION ON NONTIDAL WATERS AND FLOODPLAINS, MDE REGULATES THE "100-YEAR FREQUENCY FLOODPLAIN OF FREE-FLOWING WATERS," ALSO REFERRED TO AS NONTIDAL WATERS OF THE STATE. TO DETERMINE THE 100-YEAR FREQUENCY FLOODPLAIN, HYDROLOGIC CALCULATIONS ARE BASED ON THE ULTIMATE DEVELOPMENT OF THE WATERSHED, ASSUMING EXISTING ZONING. THE RESULTING FLOOD HAZARD AREAS DELINEATED USING THE RESULTS OF SUCH CALCULATIONS MAY BE DIFFERENT THAN THE SPECIAL FLOOD HAZARD AREAS ESTABLISHED IN SECTION 16.700(E) OF THESE REGULATIONS. A PERMIT FROM HOWARD COUNTY, MARYLAND, DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS IS STILL REQUIRED IN ADDITION TO ANY STATE REQUIREMENTS.

(3) A PERMIT IS VALID PROVIDED THE ACTUAL START OF WORK IS WITHIN 180 DAYS OF THE DATE OF PERMIT ISSUANCE. REQUESTS FOR EXTENSIONS SHALL BE SUBMITTED IN WRITING AND JUSTIFIABLE CAUSE DEMONSTRATED. ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR, THE DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS MAY GRANT, IN WRITING, ONE OR MORE EXTENSIONS OF TIME, FOR ADDITIONAL PERIODS NOT EXCEEDING 90 DAYS EACH AND PROVIDED THERE HAS BEEN NO AMENDMENT OR REVISION TO THE BASIS FOR ESTABLISHING SPECIAL FLOOD HAZARD AREAS AND BFES SET FORTH IN SECTION 16.700(E).

(E) *APPLICATION REQUIRED*. THE GENERAL REQUIREMENTS OF THIS SUBTITLE AND THE HOWARD COUNTY BUILDING CODE APPLY TO ALL DEVELOPMENT PROPOSED WITHIN ALL SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, IDENTIFIED IN SECTION 16.700(E) OF THIS SUBTITLE. APPLICATION FOR A PERMIT SHALL BE MADE BY THE OWNER OF THE PROPERTY OR THE OWNER'S AUTHORIZED AGENT (HEREIN REFERRED TO AS THE APPLICANT) PRIOR TO THE START OF ANY WORK. THE APPLICATION SHALL BE ON A FORM FURNISHED BY THE DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS FOR THAT PURPOSE.

(1) *Application Contents.* At a minimum, applications shall include:

(i) Site plans drawn to scale showing the nature, location, dimensions, and existing and proposed topography of the area in question, and the location of existing and proposed structures, excavation, filling, storage of materials, drainage facilities, and other proposed activities.

(ii) Elevation of the existing natural ground where buildings or structures are proposed, referenced to the datum on the FIRM.

(iii) Delineation of flood hazard areas, designated floodway boundaries, flood zones, base flood elevations, and flood protection setbacks. Base flood elevations shall be used to delineate the boundary of flood hazard areas on surveyed topography and such delineations shall prevail over the boundary of SFHAs shown on FIRMs or Howard County Floodplains.

(iv) Where floodways are not delineated or base flood elevations are not shown on the FIRMs or Howard County Floodplains, the Department of Planning and Zoning on behalf of the Floodplain Administrator has the authority to require the applicant to use information provided by the Department of Planning and Zoning on behalf of the Floodplain Administrator, information that is available from Federal, State, or other sources, or to determine such information using accepted engineering practices or methods approved by the Floodplain Administrator. [Note: See "Managing Floodplain Development in Approximate Zone A Areas: A Guide for Obtaining and Developing Base (100-Year) Flood Elevations" (FEMA 265).]

(v) Determination of the base flood elevations, for development proposals and subdivision proposals, each with at least 5 lots or at least 5 acres, whichever is the lesser, in special flood hazard areas where base flood elevations are not shown on the FIRM or Howard County Floodplains; if hydrologic and hydraulic engineering analyses are submitted, such analyses shall be performed in accordance with the requirements and specifications of MDE and FEMA.

(VI) HYDROLOGIC AND HYDRAULIC ENGINEERING ANALYSES FOR PROPOSALS IN SPECIAL FLOOD HAZARD AREAS WHERE FEMA HAS PROVIDED BASE FLOOD ELEVATIONS BUT HAS NOT DELINEATED A FLOODWAY; SUCH ANALYSES SHALL DEMONSTRATE THAT THE CUMULATIVE EFFECT OF PROPOSED DEVELOPMENT, WHEN COMBINED WITH ALL OTHER EXISTING AND ANTICIPATED DEVELOPMENT WILL NOT INCREASE THE WATER SURFACE ELEVATION OF THE BASE FLOOD BY MORE THAN 0.00 FOOT.

(VII) FOR ENCROACHMENTS IN FLOODWAYS, AN EVALUATION OF ALTERNATIVES TO SUCH ENCROACHMENTS, INCLUDING DIFFERENT USES OF THE SITE OR PORTION OF THE SITE WITHIN THE FLOODWAY, AND MINIMIZATION OF SUCH ENCROACHMENT.

(VIII) IF FILL IS PROPOSED TO BE PLACED FOR A PURPOSE OTHER THAN TO ELEVATE STRUCTURES, THE APPLICANT SHALL INDICATE THE INTENDED PURPOSE FOR THE FILL.

(IX) FOR PROPOSED BUILDINGS AND STRUCTURES, INCLUDING SUBSTANTIAL IMPROVEMENT AND REPAIR OF SUBSTANTIAL DAMAGE, AND PLACEMENT AND REPLACEMENT OF MANUFACTURED HOMES, INCLUDING SUBSTANTIAL IMPROVEMENT AND REPAIR OF SUBSTANTIAL DAMAGE:

A. THE PROPOSED ELEVATION OF THE LOWEST FLOOR, INCLUDING BASEMENT, REFERENCED TO THE DATUM ON THE FIRM AND A SIGNED AGREEMENT TO SUBMIT AN ELEVATION CERTIFICATE.

B. THE SIGNED DECLARATION OF LAND RESTRICTION (NONCONVERSION AGREEMENT) THAT SHALL BE RECORDED ON THE PROPERTY DEED PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY, IF THE APPLICATION INCLUDES AN ENCLOSURE BELOW THE LOWEST FLOOR OR A CRAWL/UNDERFLOOR SPACE THAT IS MORE THAN FOUR (4) FEET IN HEIGHT.

C. A WRITTEN EVALUATION OF ALTERNATIVE METHODS CONSIDERED TO ELEVATE STRUCTURES AND MANUFACTURED HOMES, IF THE LOCATION IS IN NONTIDAL WATERS OF THE STATE AND FILL IS PROPOSED TO ACHIEVE THE ELEVATION REQUIRED IN SECTION 16.704(D)(1) OR SECTION 16.704(E)(1) OF THIS SUBTITLE.

(X) FOR ACCESSORY STRUCTURES THAT ARE 300 SQUARE FEET OR LARGER IN AREA (FOOTPRINT) BUT NO LARGER THAN 600 SQUARE FEET IN AREA (FOOTPRINT) AND THAT ARE BELOW THE BASE FLOOD ELEVATION, AN ALTERNATIVE COMPLIANCE IS REQUIRED AS SET FORTH IN SECTION 16.706 OF THIS SUBTITLE. IF AN ALTERNATIVE COMPLIANCE

IS GRANTED, A SIGNED DECLARATION OF LAND RESTRICTION (NONCONVERSION AGREEMENT) SHALL BE RECORDED ON THE PROPERTY DEED PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.

(XI) FOR TEMPORARY STRUCTURES AND TEMPORARY STORAGE, SPECIFICATION OF THE DURATION OF THE TEMPORARY USE.

(XII) FOR PROPOSED WORK ON EXISTING BUILDINGS, STRUCTURES, AND MANUFACTURED HOMES, INCLUDING ANY IMPROVEMENT, ADDITION, REPAIRS, ALTERATIONS, REHABILITATION, OR RECONSTRUCTION, SUFFICIENT INFORMATION TO DETERMINE IF THE WORK CONSTITUTES SUBSTANTIAL IMPROVEMENT OR REPAIR OF SUBSTANTIAL DAMAGE, INCLUDING BUT NOT LIMITED TO:

A. IF THE EXISTING BUILDING OR STRUCTURE WAS CONSTRUCTED AFTER MARCH 15, 1977, EVIDENCE THAT THE WORK WILL NOT ALTER ANY ASPECT OF THE BUILDING OR STRUCTURE THAT WAS REQUIRED FOR COMPLIANCE WITH THE FLOODPLAIN MANAGEMENT REQUIREMENTS IN EFFECT AT THE TIME THE BUILDING OR STRUCTURE WAS PERMITTED.

B. IF THE PROPOSED WORK IS A HORIZONTAL ADDITION, A DESCRIPTION OF THE ADDITION AND WHETHER IT WILL BE INDEPENDENTLY SUPPORTED OR STRUCTURALLY CONNECTED TO THE BASE BUILDING AND THE NATURE OF ALL OTHER MODIFICATIONS TO THE BASE BUILDING, IF ANY.

C. DOCUMENTATION OF THE MARKET VALUE OF THE BUILDING OR STRUCTURE BEFORE THE IMPROVEMENT OR, IF THE WORK IS REPAIR OF DAMAGE, BEFORE THE DAMAGE OCCURRED.

D. DOCUMENTATION OF THE ACTUAL CASH VALUE OF ALL PROPOSED WORK, INCLUDING THE ACTUAL CASH VALUE OF ALL WORK NECESSARY TO REPAIR AND RESTORE DAMAGE TO THE BEFORE-DAMAGED CONDITION, REGARDLESS OF THE AMOUNT OF WORK THAT WILL BE PERFORMED. THE VALUE OF WORK PERFORMED BY THE OWNER OR VOLUNTEERS SHALL BE VALUED AT MARKET LABOR RATES; THE VALUE OF DONATED OR DISCOUNTED MATERIALS SHALL BE VALUED AT MARKET RATES.

(XIII)CERTIFICATIONS AND/OR TECHNICAL ANALYSES PREPARED OR CONDUCTED BY A LICENSED PROFESSIONAL ENGINEER OR LICENSED ARCHITECT, AS APPROPRIATE, INCLUDING:

A. THE DETERMINATION OF THE BASE FLOOD ELEVATIONS OR HYDROLOGIC AND HYDRAULIC ENGINEERING ANALYSES PREPARED BY A LICENSED PROFESSIONAL ENGINEER THAT ARE REQUIRED BY THE FLOODPLAIN ADMINISTRATOR OR ARE REQUIRED BY THESE REGULATIONS IN: SECTION 16.703(B) FOR CERTAIN SUBDIVISIONS AND DEVELOPMENT; SECTION 16.704(C)(1)FOR DEVELOPMENT IN DESIGNATED FLOODWAYS; SECTION 16.704(C)(2)FOR DEVELOPMENT IN FLOOD HAZARD AREAS WITH BASE FLOOD ELEVATIONS BUT NO DESIGNATED FLOODWAYS; AND SECTION 16.704(C)(4) FOR DELIBERATE ALTERATION OR RELOCATION OF WATERCOURSES.

B. THE FLOODPROOFING CERTIFICATE FOR NONRESIDENTIAL STRUCTURES THAT ARE FLOODPROOFED AS REQUIRED IN SECTION 16.704(E)(2).

C. CERTIFICATION THAT ENGINEERED FLOOD OPENINGS ARE DESIGNED TO MEET THE MINIMUM REQUIREMENTS OF SECTION 16.704(D)(3)(III) TO AUTOMATICALLY EQUALIZE HYDROSTATIC FLOOD FORCES.

(XIV) FOR NONRESIDENTIAL STRUCTURES THAT ARE PROPOSED WITH FLOODPROOFING, AN OPERATIONS AND MAINTENANCE PLAN AS SPECIFIED IN SECTION 6.704(E)(2)(III).

(XV) SUCH OTHER MATERIAL AND INFORMATION AS MAY BE REQUESTED BY THE DEPARTMENT OF PLANNING AND ZONING, THE DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, AND THE DEPARTMENT OF PUBLIC WORKS ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR AND NECESSARY TO DETERMINE CONFORMANCE WITH THESE REGULATIONS.

(2) NEW TECHNICAL DATA.

(I) THE APPLICANT MAY SEEK A LETTER OF MAP CHANGE BY SUBMITTING NEW TECHNICAL DATA TO FEMA, SUCH AS BASE MAPS, TOPOGRAPHY, AND ENGINEERING ANALYSES TO SUPPORT REVISION OF FLOODPLAIN AND FLOODWAY BOUNDARIES AND/OR BASE FLOOD ELEVATIONS. SUCH SUBMISSIONS SHALL BE PREPARED IN A FORMAT ACCEPTABLE TO FEMA AND ANY FEES SHALL BE THE SOLE RESPONSIBILITY OF THE APPLICANT. A COPY OF THE SUBMITTAL SHALL BE ATTACHED TO THE APPLICATION FOR A PERMIT.

APPLICANTS SHALL CONFIRM THROUGH THE FLOODPLAIN ADMINISTRATOR WHETHER CHANGES CAN BE SUBMITTED DIRECTLY TO FEMA OR MUST BE SUBMITTED TO FEMA THROUGH THE COUNTY.

(II) IF THE APPLICANT SUBMITS NEW TECHNICAL DATA TO SUPPORT ANY CHANGE IN FLOODPLAIN AND DESIGNATED FLOODWAY BOUNDARIES AND/OR BASE FLOOD ELEVATIONS BUT HAS NOT SOUGHT A LETTER OF MAP CHANGE FROM FEMA, THE APPLICANT SHALL SUBMIT SUCH DATA TO FEMA AS SOON AS PRACTICABLE, BUT NOT LATER THAN SIX MONTHS AFTER THE DATE SUCH INFORMATION BECOMES AVAILABLE. SUCH SUBMISSIONS SHALL BE PREPARED IN A FORMAT ACCEPTABLE TO FEMA AND ANY FEES SHALL BE THE SOLE RESPONSIBILITY OF THE APPLICANT.

(F) *REVIEW OF APPLICATION.* ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR, THE DEPARTMENT OF PLANNING AND ZONING AND THE DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS SHALL:

(1) REVIEW APPLICATIONS FOR DEVELOPMENT IN SPECIAL FLOOD HAZARD AREAS TO DETERMINE THE COMPLETENESS OF INFORMATION SUBMITTED. THE APPLICANT SHALL BE NOTIFIED OF INCOMPLETENESS OR ADDITIONAL INFORMATION THAT IS REQUIRED TO SUPPORT THE APPLICATION.

(2) NOTIFY APPLICANTS THAT PERMITS FROM MDE AND THE U.S. ARMY CORPS OF ENGINEERS, AND OTHER STATE AND FEDERAL AUTHORITIES MAY BE REQUIRED.

(3) REVIEW ALL PERMIT APPLICATIONS TO ASSURE THAT ALL NECESSARY PERMITS HAVE BEEN RECEIVED FROM THE FEDERAL, STATE OR LOCAL GOVERNMENTAL AGENCIES FROM WHICH PRIOR APPROVAL IS REQUIRED. THE APPLICANT SHALL BE RESPONSIBLE FOR OBTAINING SUCH PERMITS, INCLUDING PERMITS ISSUED BY:

(I) THE U.S. ARMY CORPS OF ENGINEERS UNDER SECTION 10 OF THE RIVERS AND HARBORS ACT AND SECTION 404 OF THE CLEAN WATER ACT;

(II) MDE PURSUANT TO COMAR 26.23 (NONTIDAL WETLANDS) AND SECTION 401 OF THE CLEAN WATER ACT;

(III) MDE FOR CONSTRUCTION ON NONTIDAL WATERS OF THE STATE PURSUANT TO COMAR 26.17.04.

(4) REVIEW APPLICATIONS FOR COMPLIANCE WITH THESE REGULATIONS AFTER ALL INFORMATION REQUIRED IN SECTION 16.702(E) OF THESE REGULATIONS OR IDENTIFIED AND

REQUIRED BY THE DEPARTMENT OF PLANNING AND ZONING AND THE DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS, AND THE DEPARTMENT OF PUBLIC WORKS ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR HAS BEEN RECEIVED.

(G) INSPECTIONS. ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR, THE DEPARTMENT OF INSPECTION, LICENSES, AND PERMITS SHALL MAKE PERIODIC INSPECTIONS OF DEVELOPMENT PERMITTED IN SPECIAL FLOOD HAZARD AREAS, AT APPROPRIATE TIMES THROUGHOUT THE PERIOD OF CONSTRUCTION IN ORDER TO MONITOR COMPLIANCE. SUCH INSPECTIONS MAY INCLUDE:

(1) STAKE-OUT INSPECTION, TO DETERMINE LOCATION ON THE SITE RELATIVE TO THE FLOOD HAZARD AREA AND DESIGNATED FLOODWAY.

(2) FOUNDATION INSPECTION, UPON PLACEMENT OF THE LOWEST FLOOR AND PRIOR TO FURTHER VERTICAL CONSTRUCTION, TO COLLECT INFORMATION OR CERTIFICATION OF THE ELEVATION OF THE LOWEST FLOOR.

(3) INSPECTION OF ENCLOSURES BELOW THE LOWEST FLOOR, INCLUDING CRAWL/UNDERFLOOR SPACES, TO DETERMINE COMPLIANCE WITH APPLICABLE PROVISIONS.

(4) UTILITY INSPECTION, UPON INSTALLATION OF SPECIFIED EQUIPMENT AND APPLIANCES, TO DETERMINE APPROPRIATE LOCATION WITH RESPECT TO THE BASE FLOOD ELEVATION.

(5) FINAL INSPECTION PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.

(H) SUBMISSIONS REQUIRED PRIOR TO FINAL INSPECTION. PURSUANT TO THE AGREEMENT TO SUBMIT AN ELEVATION CERTIFICATE SUBMITTED WITH THE APPLICATION AS REQUIRED IN SECTION 16.702(E)(1)(IX) OF THIS SUBTITLE, THE PERMITTEE SHALL HAVE AN ELEVATION CERTIFICATE PREPARED AND SUBMITTED PRIOR TO FINAL INSPECTION AND ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR ELEVATED STRUCTURES AND MANUFACTURED HOMES, INCLUDING NEW STRUCTURES AND MANUFACTURED HOMES, SUBSTANTIALLY-IMPROVED STRUCTURES AND MANUFACTURED HOMES, AND ADDITIONS TO STRUCTURES AND MANUFACTURED HOMES.

**SECTION 16.703. REQUIREMENTS IN ALL FLOOD HAZARD AREAS.**

(A) *APPLICATION OF REQUIREMENTS.* THE GENERAL REQUIREMENTS OF THIS SECTION APPLY TO ALL DEVELOPMENT PROPOSED WITHIN ALL SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS,

IDENTIFIED IN SECTION 16.700(E). WITHIN SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, NO DEVELOPMENT SHALL BE PERMITTED EXCEPT AS PROVIDED IN THIS SUBTITLE, THE HOWARD COUNTY BUILDING CODE ADOPTED AT TITLE 3, SUBTITLE 1 OF THIS CODE AND THE SUBDIVISION REGULATIONS ADOPTED AT TITLE 16, SUBTITLE 1 OF THIS CODE.

(B) *SUBDIVISION PROPOSALS AND DEVELOPMENT PROPOSALS.*

(1) IN ALL FLOOD ZONES:

(I) SUBDIVISION PROPOSALS AND DEVELOPMENT PROPOSALS SHALL BE CONSISTENT WITH THE NEED TO MINIMIZE FLOOD DAMAGE AND ARE SUBJECT TO ALL APPLICABLE STANDARDS IN THESE REGULATIONS.

(II) SUBDIVISION PROPOSALS AND DEVELOPMENT PROPOSALS SHALL HAVE UTILITIES AND FACILITIES SUCH AS SEWER, GAS, ELECTRICAL, AND WATER SYSTEMS LOCATED AND CONSTRUCTED TO MINIMIZE FLOOD DAMAGE.

(III) SUBDIVISION PROPOSALS AND DEVELOPMENT PROPOSALS SHALL HAVE ADEQUATE DRAINAGE PATHS PROVIDED TO REDUCE EXPOSURE TO FLOOD HAZARDS AND TO GUIDE FLOODWATERS AROUND AND AWAY FROM PROPOSED STRUCTURES.

(IV) SUBDIVISION PROPOSALS AND DEVELOPMENT PROPOSALS CONTAINING AT LEAST 5 LOTS OR AT LEAST 5 ACRES, WHICHEVER IS THE LESSER, THAT ARE WHOLLY OR PARTIALLY IN FLOOD HAZARD AREAS WHERE BASE FLOOD ELEVATION DATA ARE NOT PROVIDED BY THE DEPARTMENT OF PLANNING AND ZONING ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR OR AVAILABLE FROM OTHER SOURCES, SHALL BE SUPPORTED BY DETERMINATIONS OF BASE FLOOD ELEVATIONS AS REQUIRED IN SECTION 16.702(E) OF THIS SUBTITLE.

(V) NEW PUBLIC ROADS AND NEW PUBLIC SUBDIVISION ACCESS ROADS SHALL HAVE THE DRIVING SURFACE AT OR ABOVE THE BASE FLOOD ELEVATION PLUS 2 FEET.

(2) IN SPECIAL FLOOD HAZARD AREAS OF NONTIDAL WATERS OF THE STATE:

(I) SUBDIVISION PROPOSALS SHALL BE LAID OUT SUCH THAT PROPOSED BUILDING PADS ARE LOCATED OUTSIDE OF THE SPECIAL FLOOD HAZARD AREA AND ANY PORTION OF PLATTED LOTS THAT INCLUDE LAND AREAS THAT ARE BELOW THE BASE FLOOD ELEVATION SHALL BE USED FOR OTHER PURPOSES, DEED RESTRICTED, OR OTHERWISE PROTECTED TO PRESERVE IT IN AN UNDISTURBED, UNDEVELOPED CONDITION. TREE

PLANTING OR OTHER VEGETATIVE ENHANCEMENTS APPROVED AS PART OF THE SUBDIVISION PROPOSAL ARE ALLOWED.

(II) NEW PUBLIC ROADS AND NEW PUBLIC SUBDIVISION ACCESS ROADS SHALL HAVE THE DRIVING SURFACE AT OR ABOVE THE BASE FLOOD ELEVATION PLUS 2 FEET.

(C) PROTECTION OF WATER SUPPLY AND SANITARY SEWAGE SYSTEMS

(1) NEW AND REPLACEMENT WATER SUPPLY SYSTEMS SHALL BE DESIGNED TO MINIMIZE OR ELIMINATE INFILTRATION OF FLOODWATERS INTO THE SYSTEMS.

(2) NEW AND REPLACEMENT SANITARY SEWAGE SYSTEMS SHALL BE DESIGNED TO MINIMIZE OR ELIMINATE INFILTRATION OF FLOODWATERS INTO SYSTEMS AND DISCHARGES FROM SYSTEMS INTO FLOODWATERS.

(3) ON-SITE WASTE DISPOSAL SYSTEMS SHALL BE LOCATED TO AVOID IMPAIRMENT TO OR CONTAMINATION FROM THEM DURING CONDITIONS OF FLOODING.

(D)BUILDINGS AND STRUCTURES. NEW BUILDINGS AND STRUCTURES (EXCLUDING THE PLACEMENT AND REPLACEMENT OF MANUFACTURED HOMES) AND SUBSTANTIAL IMPROVEMENT OF EXISTING STRUCTURES (EXCLUDING MANUFACTURED HOMES) THAT ARE LOCATED, IN WHOLE OR IN PART, IN ANY SPECIAL FLOOD HAZARD AREA SHALL:

(1) BE DESIGNED (OR MODIFIED) AND CONSTRUCTED TO SAFELY SUPPORT FLOOD LOADS. THE CONSTRUCTION SHALL PROVIDE A COMPLETE LOAD PATH CAPABLE OF TRANSFERRING ALL LOADS FROM THEIR POINT OF ORIGIN THROUGH THE LOAD-RESISTING ELEMENTS TO THE FOUNDATION. STRUCTURES SHALL BE DESIGNED, CONNECTED AND ANCHORED TO RESIST FLOTATION, COLLAPSE OR PERMANENT LATERAL MOVEMENT DUE TO STRUCTURAL LOADS AND STRESSES, INCLUDING HYDRODYNAMIC AND HYDROSTATIC LOADS AND THE EFFECTS OF BUOYANCY, FROM FLOODING EQUAL TO THE FLOOD PROTECTION ELEVATION OR THE ELEVATION REQUIRED BY THESE REGULATIONS OR THE BUILDING CODE, WHICHEVER IS HIGHER.

(2) BE CONSTRUCTED BY METHODS AND PRACTICES THAT MINIMIZE FLOOD DAMAGE.

(3) USE FLOOD DAMAGE-RESISTANT MATERIALS BELOW THE ELEVATION OF THE LOWEST FLOOR REQUIRED IN SECTION 16.704(D)(1) OR SECTION 16.704(E)(1) OF THIS SUBTITLE.

(4) HAVE ELECTRICAL SYSTEMS, EQUIPMENT AND COMPONENTS, AND MECHANICAL, HEATING, VENTILATING, AIR CONDITIONING, AND PLUMBING APPLIANCES, PLUMBING FIXTURES, DUCT SYSTEMS, AND OTHER SERVICE EQUIPMENT LOCATED AT OR ABOVE THE ELEVATION OF THE

LOWEST FLOOR REQUIRED IN SECTION 16.704(D)(1) OR SECTION 16.704(E)(1) OF THIS SUBTITLE. ELECTRICAL WIRING SYSTEMS ARE PERMITTED TO BE LOCATED BELOW ELEVATION OF THE LOWEST FLOOR PROVIDED THEY CONFORM TO THE PROVISIONS OF THE ELECTRICAL PART OF THE BUILDING CODE FOR WET LOCATIONS. IF REPLACED AS PART OF A SUBSTANTIAL IMPROVEMENT, ELECTRICAL SYSTEMS, EQUIPMENT AND COMPONENTS, AND HEATING, VENTILATION, AIR CONDITIONING, AND PLUMBING APPLIANCES, PLUMBING FIXTURES, DUCT SYSTEMS, AND OTHER SERVICE EQUIPMENT SHALL MEET THE REQUIREMENTS OF THIS SECTION.

(5) AS AN ALTERNATIVE TO PARAGRAPH (4), ELECTRICAL SYSTEMS, EQUIPMENT AND COMPONENTS, AND HEATING, VENTILATING, AIR CONDITIONING, AND PLUMBING APPLIANCES, PLUMBING FIXTURES, DUCT SYSTEMS, AND OTHER SERVICE EQUIPMENT ARE PERMITTED TO BE LOCATED BELOW THE ELEVATION OF THE LOWEST FLOOR PROVIDED THEY ARE DESIGNED AND INSTALLED TO PREVENT WATER FROM ENTERING OR ACCUMULATING WITHIN THE COMPONENTS AND TO RESIST HYDROSTATIC AND HYDRODYNAMIC LOADS AND STRESSES, INCLUDING THE EFFECTS OF BUOYANCY, DURING THE OCCURRENCE OF FLOODING TO THAT ELEVATION.

(6) HAVE THE ELECTRIC PANELBOARD ELEVATED AT LEAST THREE (3) FEET ABOVE THE BFE.

(7) COMPLY WITH THE SPECIFIC REQUIREMENTS OF SECTION 16.704 OF THIS SUBTITLE.

(8) COMPLY WITH THE REQUIREMENTS OF THE MOST RESTRICTIVE DESIGNATION IF LOCATED ON A SITE THAT HAS MORE THAN ONE FLOOD ZONE DESIGNATION (A ZONE, DESIGNATED FLOODWAY).

(E)PLACEMENT OF FILL.

(1) DISPOSAL OF FILL, INCLUDING BUT NOT LIMITED TO EARTHEN SOILS, ROCK, RUBBLE, CONSTRUCTION DEBRIS, WOODY DEBRIS, AND TRASH, SHALL NOT BE PERMITTED IN SPECIAL FLOOD HAZARD AREAS.

(2) FILL PROPOSED TO BE PLACED TO ELEVATE STRUCTURES IN FLOOD HAZARD AREAS SHALL COMPLY WITH THE FLOODWAYS REQUIREMENTS IN SECTION 16.704(C)(1) AND SECTION 16.704(C)(2) AND THE LIMITATIONS OF SECTION 16.704(D)(2), ALL OF THIS SUBTITLE.

(F) HISTORIC STRUCTURES. REPAIR, ALTERATION, ADDITION, REHABILITATION, OR OTHER IMPROVEMENT OF HISTORIC STRUCTURES SHALL BE SUBJECT TO THE REQUIREMENTS OF

THESE REGULATIONS IF THE PROPOSED WORK IS DETERMINED TO BE A SUBSTANTIAL IMPROVEMENT, UNLESS A DETERMINATION IS MADE THAT THE PROPOSED WORK WILL PRECLUDE THE STRUCTURE'S CONTINUED DESIGNATION AS A HISTORIC STRUCTURE. ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR, THE DEPARTMENT OF PLANNING AND ZONING MAY REQUIRE DOCUMENTATION OF A STRUCTURE'S CONTINUED ELIGIBILITY AND DESIGNATION AS A HISTORIC STRUCTURE.

(G)MANUFACTURED HOMES

(1) NEW MANUFACTURED HOMES SHALL NOT BE PLACED OR INSTALLED IN SPECIAL FLOOD HAZARD AREAS OR FLOODWAYS.

(2) FOR THE PURPOSE OF THESE REGULATIONS, THE LOWEST FLOOR OF A MANUFACTURED HOME IS THE BOTTOM OF THE LOWEST HORIZONTAL SUPPORTING MEMBER (LONGITUDINAL CHASSIS FRAME BEAM).

(3) NEW MANUFACTURED HOMES LOCATED OUTSIDE OF FLOODWAYS, REPLACEMENT MANUFACTURED HOMES IN ANY FLOOD HAZARD AREAS, AND SUBSTANTIAL IMPROVEMENT (INCLUDING REPAIR OF SUBSTANTIAL DAMAGE) OF EXISTING MANUFACTURED HOMES IS PROHIBITED IN ALL FLOOD HAZARD AREAS.

(H)RECREATIONAL VEHICLES. RECREATIONAL VEHICLES SHALL:

(1) MEET THE REQUIREMENTS FOR MANUFACTURED HOMES IN SECTION 4.716.703(G) OF THIS SUBTITLE; OR

(2) BE FULLY LICENSED AND READY FOR HIGHWAY USE; OR

(3) BE ON A SITE FOR LESS THAN 180 CONSECUTIVE DAYS.

(I)CRITICAL AND ESSENTIAL FACILITIES. CRITICAL AND ESSENTIAL FACILITIES SHALL:

(1) NOT BE LOCATED IN FLOODWAYS.

(2) IF LOCATED IN FLOOD HAZARD AREAS OTHER THAN FLOODWAYS, BE ELEVATED TO THE HIGHER OF ELEVATION REQUIRED BY THESE REGULATIONS PLUS ONE (1) FOOT, THE ELEVATION REQUIRED BY THE BUILDING CODE, OR THE ELEVATION OF THE 0.2 PERCENT CHANCE (500-YEAR) FLOOD.

(3) DEPARTMENT OF PUBLIC WORKS CRITICAL AND ESSENTIAL FACILITIES, INCLUDING BUT NOT LIMITED TO WASTEWATER TREATMENT PLANTS, PUMPING STATIONS, AND DRINKING WATER TANKS, ARE EXEMPT FROM THE PROHIBITIONS OF THIS SECTION AT THE DISCRETION

OF THE FLOODPLAIN ADMINISTRATOR, BUT MUST ADDRESS ALL OTHER REQUIREMENTS OF THESE REGULATIONS.

(J)TEMPORARY STRUCTURES AND TEMPORARY STORAGE. IN ADDITION TO THE APPLICATION REQUIREMENTS OF SECTION 16.702(E) OF THIS SUBTITLE, APPLICATIONS FOR THE PLACEMENT OR ERECTION OF TEMPORARY STRUCTURES AND THE TEMPORARY STORAGE OF ANY GOODS, MATERIALS, AND EQUIPMENT, SHALL SPECIFY THE DURATION OF THE TEMPORARY USE. TEMPORARY STRUCTURES AND TEMPORARY STORAGE IN FLOODWAYS SHALL MEET THE LIMITATIONS OF SECTION 16.704(C)(1) OF THIS SUBTITLE. IN ADDITION:

(1) TEMPORARY STRUCTURES SHALL:

(I) BE DESIGNED AND CONSTRUCTED TO PREVENT FLOTATION, COLLAPSE OR LATERAL MOVEMENT RESULTING FROM HYDRODYNAMIC LOADS AND HYDROSTATIC LOADS DURING CONDITIONS OF THE BASE FLOOD;

(II) HAVE ELECTRIC SERVICE INSTALLED IN COMPLIANCE WITH THE ELECTRIC CODE; AND

(III) COMPLY WITH ALL OTHER REQUIREMENTS OF THE APPLICABLE STATE AND LOCAL PERMIT AUTHORITIES.

(2) TEMPORARY STORAGE SHALL NOT INCLUDE HAZARDOUS MATERIALS.

(K) GAS OR LIQUID STORAGE TANKS

(1) UNDERGROUND TANKS IN FLOOD HAZARD AREAS SHALL BE ANCHORED TO PREVENT FLOTATION, COLLAPSE OR LATERAL MOVEMENT RESULTING FROM HYDROSTATIC LOADS, INCLUDING THE EFFECTS OF BUOYANCY, DURING CONDITIONS OF THE BASE FLOOD.

(2) ABOVE-GROUND TANKS IN FLOOD HAZARD AREAS SHALL BE ANCHORED TO A SUPPORTING STRUCTURE AND ELEVATED TO OR ABOVE THE BASE FLOOD ELEVATION, OR SHALL BE ANCHORED OR OTHERWISE DESIGNED AND CONSTRUCTED TO PREVENT FLOTATION, COLLAPSE, OR LATERAL MOVEMENT RESULTING FROM HYDRODYNAMIC AND HYDROSTATIC LOADS, INCLUDING THE EFFECTS OF BUOYANCY, DURING CONDITIONS OF THE BASE FLOOD.

(3) IN FLOOD HAZARD AREAS, TANK INLETS, FILL OPENINGS, OUTLETS AND VENTS SHALL BE:

(I) AT OR ABOVE THE BASE FLOOD ELEVATION OR FITTED WITH COVERS DESIGNED TO PREVENT THE INFLOW OF FLOODWATER OR OUTFLOW OF THE CONTENTS OF THE TANKS DURING CONDITIONS OF THE BASE FLOOD; AND

(II) ANCHORED TO PREVENT LATERAL MOVEMENT RESULTING FROM HYDRODYNAMIC AND HYDROSTATIC LOADS, INCLUDING THE EFFECTS OF BUOYANCY, DURING CONDITIONS OF THE BASE FLOOD.

(L) FUNCTIONALLY DEPENDENT USES. APPLICATIONS FOR FUNCTIONALLY DEPENDENT USES THAT DO NOT CONFORM TO THE REQUIREMENTS OF THESE REGULATIONS SHALL BE APPROVED ONLY BY ALTERNATIVE COMPLIANCES ISSUED PURSUANT TO SECTION 16.706 OF THIS SUBTITLE. IF APPROVED, FUNCTIONALLY DEPENDENT USES SHALL BE PROTECTED BY METHODS THAT MINIMIZE FLOOD DAMAGE DURING THE BASE FLOOD, INCLUDING MEASURES TO ALLOW FLOODWATERS TO ENTER AND EXIT, USE OF FLOOD DAMAGE-RESISTANT MATERIALS, AND ELEVATION OF ELECTRIC SERVICE AND EQUIPMENT TO THE EXTENT PRACTICAL GIVEN THE USE OF THE BUILDING.

**SECTION 16.704. ADDITIONAL REQUIREMENTS IN FLOOD HAZARD AREAS**

(A)GENERAL REQUIREMENTS. IN ADDITION TO THE GENERAL REQUIREMENTS OF SECTION 16.703 OF THIS SUBTITLE, THE REQUIREMENTS OF THIS SECTION SHALL:

(1) APPLY IN FLOOD HAZARD AREAS, INCLUDING SPECIAL FLOOD HAZARD AREAS ALONG NONTIDAL WATERS OF THE STATE.

(2) APPLY TO ALL DEVELOPMENT, NEW CONSTRUCTION, SUBSTANTIAL IMPROVEMENTS (INCLUDING REPAIR OF SUBSTANTIAL DAMAGE), EXCLUDING THE PLACEMENT, REPLACEMENT, AND SUBSTANTIAL IMPROVEMENT (INCLUDING REPAIR OF SUBSTANTIAL DAMAGE) OF MANUFACTURED HOMES, WHICH ARE PROHIBITED IN SPECIAL FLOOD HAZARD AREAS.

WITHIN SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, NO DEVELOPMENT SHALL BE PERMITTED EXCEPT AS PROVIDED IN THIS SUBTITLE, THE HOWARD COUNTY BUILDING CODE ADOPTED AT TITLE 3, SUBTITLE 1 OF THIS CODE AND THE SUBDIVISION REGULATIONS ADOPTED AT TITLE 16, SUBTITLE 1 OF THIS CODE. THE MAINTENANCE AND REPAIR OF EXISTING PRINCIPAL AND ACCESSORY STRUCTURES WITHIN SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, IS PERMISSIBLE, SUBJECT TO OBTAINING ALL RELEVANT PERMITS. DEMOLITION, EITHER VOLUNTARY OR

INVOLUNTARY, AND REPLACEMENT OF A HOME WITHIN A SPECIAL FLOOD HAZARD AREA, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, SHALL BE EVALUATED ON A CASE-BY-CASE BASIS AND SHALL MEET THE REQUIREMENTS OF THE HOWARD COUNTY BUILDING CODE, THE DPW DESIGN MANUAL, AND THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, INCLUDING SUBTITLE 7, FLOODPLAIN.

(B) FLOOD PROTECTION SETBACKS. WITHIN AREAS DEFINED BY FLOOD PROTECTION SETBACKS ALONG NONTIDAL WATERS OF THE STATE:

(1) NO NEW BUILDINGS, STRUCTURES, OR OTHER DEVELOPMENT SHALL BE PERMITTED UNLESS THE APPLICANT DEMONSTRATES THAT THE SITE CANNOT BE DEVELOPED WITHOUT SUCH ENCROACHMENT INTO THE FLOOD PROTECTION SETBACK AND THE ENCROACHMENT IS THE MINIMUM NECESSARY AFTER CONSIDERATION OF VARYING OTHER SITING STANDARDS SUCH AS SIDE, FRONT, AND BACK LOT LINE SETBACKS.

(2) DISTURBANCE OF NATURAL VEGETATION SHALL BE MINIMIZED AND ANY DISTURBANCE ALLOWED SHALL BE VEGETATIVELY STABILIZED.

(3) PUBLIC WORKS AND TEMPORARY CONSTRUCTION MAY BE PERMITTED.

(C) DEVELOPMENT THAT AFFECTS FLOOD-CARRYING CAPACITY OF NONTIDAL WATERS OF THE STATE.

(1) DEVELOPMENT IN DESIGNATED FLOODWAYS. AREAS DESIGNATED AS FLOODWAYS ON THE FLOOD INSURANCE RATE MAP OR FLOOD INSURANCE STUDY ARE EXTREMELY HAZARDOUS DUE TO THE VELOCITY OF FLOODWATERS WHICH CARRY DEBRIS, POTENTIAL PROJECTILES, AND EROSION POTENTIAL. ENCROACHMENTS, INCLUDING FILL, NEW CONSTRUCTION, SUBSTANTIAL IMPROVEMENTS, AND OTHER DEVELOPMENT, ARE PROHIBITED WITHIN A DESIGNATED FLOODWAY UNLESS IT HAS BEEN DEMONSTRATED THROUGH HYDROLOGIC AND HYDRAULIC ANALYSES PERFORMED IN ACCORDANCE WITH STANDARD ENGINEERING PRACTICE THAT THE PROPOSED ENCROACHMENT SHALL NOT RESULT IN ANY INCREASE IN FLOOD LEVELS WITHIN THE COMMUNITY DURING THE OCCURRENCE OF THE BASE FLOOD DISCHARGE. THE COUNTY SHALL REVIEW AND APPROVE THE TECHNICAL ANALYSIS PRIOR TO ISSUANCE OF ANY PERMIT. FOR PROPOSED DEVELOPMENT THAT WILL ENCROACH INTO A DESIGNATED FLOODWAY, SECTION 16.702(E)(1)(VII) OF THIS CODE REQUIRES THE APPLICANT TO SUBMIT AN EVALUATION OF ALTERNATIVES TO SUCH ENCROACHMENT,

INCLUDING DIFFERENT USES OF THE SITE OR THE PORTION OF THE SITE WITHIN THE FLOODWAY, AND MINIMIZATION OF SUCH ENCROACHMENT. THIS REQUIREMENT DOES NOT APPLY TO FENCES THAT DO NOT BLOCK THE FLOW OF FLOODWATERS OR TRAP DEBRIS. PROPOSED DEVELOPMENT IN A DESIGNATED FLOODWAY MAY BE PERMITTED ONLY IF:

(I) THE APPLICANT HAS BEEN ISSUED A PERMIT BY MDE~~; AND~~.

(II) THE APPLICANT HAS DEVELOPED HYDROLOGIC AND HYDRAULIC ENGINEERING ANALYSES AND TECHNICAL DATA PREPARED BY A LICENSED PROFESSIONAL ENGINEER REFLECTING SUCH CHANGES, AND THE ANALYSES, WHICH SHALL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING, DEMONSTRATE THAT THE PROPOSED ACTIVITY WILL NOT RESULT IN ANY INCREASE IN THE BASE FLOOD ELEVATION.~~; OR~~ CLOMR-FS AND LOMR-FS CANNOT BE USED TO CIRCUMVENT THIS PROHIBITION AND WILL NOT BE RECOGNIZED BY THE COUNTY. THE ANALYSIS SHALL BE SUPPORTED BY A NO-RISE CERTIFICATION PREPARED, SEALED, AND SIGNED BY A LICENSED PROFESSIONAL ENGINEER.

(III) IF THE ANALYSES DEMONSTRATE THAT THE PROPOSED ACTIVITIES WILL RESULT IN AN INCREASE IN THE BASE FLOOD ELEVATION, THE APPLICANT HAS OBTAINED A CONDITIONAL LETTER OF MAP REVISION AND A LETTER OF MAP REVISION FROM FEMA UPON COMPLETION OF THE PROJECT. SUBMITTAL REQUIREMENTS AND FEES SHALL BE THE RESPONSIBILITY OF THE APPLICANT.

(IV) DEPARTMENT OF PUBLIC WORKS CRITICAL AND ESSENTIAL FACILITIES, INCLUDING BUT NOT LIMITED TO WASTEWATER TREATMENT PLANTS, PUMPING STATIONS, AND DRINKING WATER TANKS, ARE EXEMPT FROM THE PROHIBITIONS OF THIS SECTION AT THE DISCRETION OF THE FLOODPLAIN ADMINISTRATOR, BUT SHALL ADDRESS ALL OTHER REQUIREMENTS OF THESE REGULATIONS.

(2) DEVELOPMENT IN AREAS WITH BASE FLOOD ELEVATIONS BUT NO DESIGNATED FLOODWAYS. FOR DEVELOPMENT IN SPECIAL FLOOD HAZARD AREAS OF NONTIDAL WATERS OF THE STATE WITH BASE FLOOD ELEVATIONS BUT NO DESIGNATED FLOODWAYS:

(I) THE APPLICANT SHALL DEVELOP HYDROLOGIC AND HYDRAULIC ENGINEERING ANALYSES AND TECHNICAL DATA REFLECTING THE PROPOSED ACTIVITY AND SHALL SUBMIT SUCH TECHNICAL DATA TO THE DEPARTMENT OF PLANNING AND ZONING, THE DEPARTMENT OF PUBLIC WORKS, AND THE FLOODPLAIN ADMINISTRATOR AS

REQUIRED IN SECTION 16.702(E)(1)(VI) OF THIS CODE. THE ANALYSES SHALL BE PREPARED BY A LICENSED PROFESSIONAL ENGINEER IN A FORMAT REQUIRED BY FEMA FOR A CONDITIONAL LETTER OF MAP REVISION AND A LETTER OF MAP REVISION UPON COMPLETION OF THE PROJECT. SUBMITTAL REQUIREMENTS AND FEES SHALL BE THE RESPONSIBILITY OF THE APPLICANT.

(II) THE PROPOSED DEVELOPMENT MAY BE PERMITTED IF THE APPLICANT HAS RECEIVED A PERMIT BY MDE AND IF THE ANALYSES DEMONSTRATE THAT THE CUMULATIVE EFFECT OF THE PROPOSED DEVELOPMENT, WHEN COMBINED WITH ALL OTHER EXISTING AND POTENTIAL FLOOD HAZARD AREA ENCROACHMENTS WILL NOT INCREASE THE BASE FLOOD ELEVATION MORE THAN 0.00 FOOT AT ANY POINT.

(3) CONSTRUCTION OF ROADS, BRIDGES, CULVERTS, DAMS AND IN-STREAM PONDS. CONSTRUCTION OF ROADS, BRIDGES, CULVERTS, DAMS, AND IN-STREAM PONDS IN NONTIDAL WATERS OF THE STATE SHALL NOT BE APPROVED UNLESS THEY COMPLY WITH THIS SECTION AND THE APPLICANT HAS RECEIVED A PERMIT FROM MDE.

(4) ALTERATION OF A WATERCOURSE. FOR ANY PROPOSED DEVELOPMENT THAT INVOLVES ALTERATION OF A WATERCOURSE NOT SUBJECT TO PARAGRAPH (2), UNLESS WAIVED BY MDE, THE APPLICANT SHALL DEVELOP HYDROLOGIC AND HYDRAULIC ENGINEERING ANALYSES AND TECHNICAL DATA REFLECTING SUCH CHANGES, INCLUDING THE FLOODWAY ANALYSIS REQUIRED IN SECTION 16.702(E)(1) OF THIS CODE, AND SUBMIT SUCH TECHNICAL DATA TO THE DEPARTMENT OF PLANNING AND ZONING, THE DEPARTMENT OF PUBLIC WORKS, THE FLOODPLAIN ADMINISTRATOR AND TO FEMA. THE ANALYSES SHALL BE PREPARED BY A LICENSED PROFESSIONAL ENGINEER IN A FORMAT REQUIRED BY MDE AND BY FEMA FOR A CONDITIONAL LETTER OF MAP REVISION AND A LETTER OF MAP REVISION UPON COMPLETION OF THE PROJECT. SUBMITTAL REQUIREMENTS AND FEES SHALL BE THE RESPONSIBILITY OF THE APPLICANT. ALTERATION OF A WATERCOURSE MAY BE PERMITTED ONLY UPON SUBMISSION, BY THE APPLICANT, OF THE FOLLOWING:

(I) A DESCRIPTION OF THE EXTENT TO WHICH THE WATERCOURSE WILL BE ALTERED OR RELOCATED;

(II) A CERTIFICATION BY A LICENSED PROFESSIONAL ENGINEER THAT THE FLOOD-CARRYING CAPACITY OF THE WATERCOURSE WILL NOT BE DIMINISHED;

(III) EVIDENCE THAT ADJACENT COMMUNITIES, THE U.S. ARMY CORPS OF ENGINEERS, AND MDE HAVE BEEN NOTIFIED OF THE PROPOSAL, AND EVIDENCE THAT SUCH NOTIFICATIONS HAVE BEEN SUBMITTED TO FEMA; AND

(IV) EVIDENCE THAT THE APPLICANT SHALL BE RESPONSIBLE FOR PROVIDING THE NECESSARY MAINTENANCE FOR THE ALTERED OR RELOCATED PORTION OF THE WATERCOURSE SO THAT THE FLOOD CARRYING CAPACITY WILL NOT BE DIMINISHED. THE FLOODPLAIN ADMINISTRATOR MAY REQUIRE THE APPLICANT TO ENTER INTO AN AGREEMENT WITH HOWARD COUNTY, MARYLAND, SPECIFYING THE MAINTENANCE RESPONSIBILITIES; IF AN AGREEMENT IS REQUIRED, THE PERMIT SHALL BE CONDITIONED TO REQUIRE THAT THE AGREEMENT BE RECORDED ON THE DEED OF THE PROPERTY, WHICH SHALL BE BINDING ON FUTURE OWNERS.

(D) RESIDENTIAL STRUCTURES AND RESIDENTIAL PORTIONS OF MIXED USE STRUCTURES. NEW RESIDENTIAL STRUCTURES AND RESIDENTIAL PORTIONS OF MIXED USE STRUCTURES, AND SUBSTANTIAL IMPROVEMENT (INCLUDING REPAIR OF SUBSTANTIAL DAMAGE) OF EXISTING RESIDENTIAL STRUCTURES AND RESIDENTIAL PORTIONS OF MIXED USE STRUCTURES SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF SECTION 16.703 OF THIS CODE AND THIS SECTION. THE REPLACEMENT OF A PORTION OF AN EXISTING RESIDENCE (DECK, BUILDING WING, ETC.) LOCATED WITHIN SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, IS PERMISSIBLE PROVIDED THE SUBJECT IMPROVEMENT EXISTED AS OF JULY 14, 2014, AND PROVIDED IT IS BEING REPLACED IN KIND OR WITH A SMALLER VERSION, UNLESS APPROVED BY AN ALTERNATIVE COMPLIANCE. ALL REPLACEMENTS OF A PORTION OF AN EXISTING RESIDENCE ARE SUBJECT REVIEW UNDER SUBSTANTIAL IMPROVEMENT AND SUBSTANTIAL DAMAGE REQUIREMENTS. SEE SUBSECTION (F) OF THIS SECTION FOR REQUIREMENTS FOR HORIZONTAL ADDITIONS.

(1) ELEVATION REQUIREMENTS

(I) LOWEST FLOORS SHALL BE ELEVATED TO OR ABOVE THE FLOOD PROTECTION ELEVATION.

(II) IN AREAS OF SHALLOW FLOODING (ZONE AO), THE LOWEST FLOOR (INCLUDING BASEMENT) SHALL BE ELEVATED AT LEAST AS HIGH ABOVE THE HIGHEST ADJACENT GRADE AS THE DEPTH NUMBER SPECIFIED IN FEET ON THE FIRM PLUS TWO (2) FEET, OR AT LEAST FOUR (4) FEET IF A DEPTH NUMBER IS NOT SPECIFIED.

(III) ENCLOSURES BELOW THE LOWEST FLOOR SHALL MEET THE REQUIREMENTS OF PARAGRAPH (3).

(IV) BASEMENT FLOORS THAT ARE BELOW GRADE ON ALL SIDES ARE PROHIBITED.

(2) LIMITATIONS ON USE OF FILL TO ELEVATE STRUCTURES. UNLESS OTHERWISE RESTRICTED BY THESE REGULATIONS, ESPECIALLY BY THE LIMITATIONS IN SUBSECTIONS (C)(1) AND (C)(2) OF THIS SECTION, FILL PLACED FOR THE PURPOSE OF RAISING THE GROUND LEVEL TO SUPPORT A BUILDING OR STRUCTURE SHALL:

(I) CONSIST OF EARTHEN SOIL OR ROCK MATERIALS ONLY.

(II) EXTEND LATERALLY FROM THE BUILDING FOOTPRINT TO PROVIDE FOR ADEQUATE ACCESS AS A FUNCTION OF USE; THE FLOODPLAIN ADMINISTRATOR MAY SEEK ADVICE FROM THE STATE FIRE MARSHAL'S OFFICE AND/OR THE LOCAL FIRE SERVICES AGENCY;

(III) COMPLY WITH THE REQUIREMENTS OF THE BUILDING CODE AND BE PLACED AND COMPACTED TO PROVIDE FOR STABILITY UNDER CONDITIONS OF RISING AND FALLING FLOODWATERS AND RESISTANCE TO EROSION, SCOUR, AND SETTLING;

(IV) BE SLOPED NO STEEPER THAN ONE (1) VERTICAL TO TWO (2) HORIZONTAL, UNLESS APPROVED BY THE FLOODPLAIN ADMINISTRATOR;

(V) BE PROTECTED FROM EROSION ASSOCIATED WITH EXPECTED VELOCITIES DURING THE OCCURRENCE OF THE BASE FLOOD; UNLESS APPROVED BY THE FLOODPLAIN ADMINISTRATOR, FILL SLOPES SHALL BE PROTECTED BY VEGETATION IF THE EXPECTED VELOCITY IS LESS THAN FIVE FEET PER SECOND, AND BY OTHER MEANS IF THE EXPECTED VELOCITY IS FIVE FEET PER SECOND OR MORE; AND

(VI) BE DESIGNED WITH PROVISIONS FOR ADEQUATE DRAINAGE AND NO ADVERSE EFFECT ON ADJACENT PROPERTIES.

(3) ENCLOSURES BELOW THE LOWEST FLOOR

(I) ENCLOSURES BELOW THE LOWEST FLOOR SHALL BE USED SOLELY FOR PARKING OF VEHICLES, BUILDING ACCESS, CRAWL/UNDERFLOOR SPACES, OR LIMITED STORAGE.

(II) ENCLOSURES BELOW THE LOWEST FLOOR SHALL BE CONSTRUCTED USING FLOOD DAMAGE-RESISTANT MATERIALS.

(III) ENCLOSURES BELOW THE LOWEST FLOOR SHALL BE PROVIDED WITH FLOOD OPENINGS WHICH SHALL MEET THE FOLLOWING CRITERIA: [NOTE: SEE NFIP TECHNICAL BULLETIN #1, "OPENINGS IN FOUNDATION WALLS AND WALLS OF ENCLOSURES."]

1. THERE SHALL BE A MINIMUM OF TWO 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.
2. 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.
3. 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.
4. ANY LOUVERS, SCREENS OR OTHER COVERS FOR THE FLOOD OPENINGS SHALL ALLOW THE AUTOMATIC FLOW OF FLOODWATERS INTO AND OUT OF THE ENCLOSED AREA.
5. IF INSTALLED IN DOORS, FLOOD OPENINGS THAT MEET REQUIREMENTS OF PARAGRAPHS (A) THROUGH (D), ARE ACCEPTABLE; HOWEVER, DOORS WITHOUT INSTALLED FLOOD OPENINGS DO NOT MEET THE REQUIREMENTS OF THIS SECTION.

(E) NONRESIDENTIAL STRUCTURES AND NONRESIDENTIAL PORTIONS OF MIXED USE STRUCTURES. NEW NONRESIDENTIAL STRUCTURES AND NONRESIDENTIAL PORTIONS OF MIXED USE STRUCTURES, AND SUBSTANTIAL IMPROVEMENT (INCLUDING REPAIR OF SUBSTANTIAL DAMAGE) OF EXISTING NONRESIDENTIAL STRUCTURES AND NONRESIDENTIAL PORTIONS OF MIXED USE STRUCTURES SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF SECTION 16.703 OF THIS SUBTITLE AND THE REQUIREMENTS OF THIS SECTION. SEE SUBSECTION (F) OF THIS SECTION FOR REQUIREMENTS FOR HORIZONTAL ADDITIONS.

(1) ELEVATION REQUIREMENTS. ELEVATED STRUCTURES SHALL:

(I) HAVE THE LOWEST FLOOR (INCLUDING BASEMENT) ELEVATED TO OR ABOVE THE FLOOD PROTECTION ELEVATION; OR

(II) IN AREAS OF SHALLOW FLOODING (ZONE AO), HAVE THE LOWEST FLOOR (INCLUDING BASEMENT) ELEVATED AT LEAST AS HIGH ABOVE THE HIGHEST ADJACENT GRADE AS THE DEPTH NUMBER SPECIFIED IN FEET ON THE FIRM PLUS TWO (2) FEET, OR AT LEAST FOUR (4) FEET IF A DEPTH NUMBER IS NOT SPECIFIED; AND

(III) HAVE ENCLOSURES BELOW THE LOWEST FLOOR, IF ANY, THAT COMPLY WITH THE REQUIREMENTS OF SUBSECTION (D)(3) OF THIS SECTION; OR

(IV) IF PROPOSED TO BE ELEVATED ON FILL, MEET THE LIMITATIONS ON FILL IN SUBSECTION (D)(2) OF THIS SECTION.

(V) BASEMENT FLOORS THAT ARE BELOW GRADE ON ALL SIDES ARE PROHIBITED.

(2) FLOODPROOFING REQUIREMENTS

(I) FLOODPROOFING OF NEW NONRESIDENTIAL BUILDINGS IS NOT ALLOWED IN NONTIDAL WATERS OF THE STATE (COMAR 26.17.04.11(B)(7)).

(II) FLOODPROOFING FOR SUBSTANTIAL IMPROVEMENT OF NONRESIDENTIAL BUILDINGS IS ALLOWED IN NONTIDAL WATERS OF THE STATE.

(III) IF FLOODPROOFING IS PROPOSED, STRUCTURES SHALL:

A. BE DESIGNED TO BE DRY FLOODPROOFED SUCH THAT THE BUILDING OR STRUCTURE IS WATERTIGHT WITH WALLS AND FLOORS SUBSTANTIALLY IMPERMEABLE TO THE PASSAGE OF WATER TO THE LEVEL OF THE FLOOD PROTECTION ELEVATION PLUS 2 FEET, OR

B. IF LOCATED IN AN AREA OF SHALLOW FLOODING (ZONE AO), BE DRY FLOODPROOFED AT LEAST AS HIGH ABOVE THE HIGHEST ADJACENT GRADE AS THE DEPTH NUMBER SPECIFIED ON THE FIRM PLUS THREE (3) FEET, OR AT LEAST FIVE (5) FEET IF A DEPTH NUMBER IS NOT SPECIFIED; AND

C. HAVE STRUCTURAL COMPONENTS CAPABLE OF RESISTING HYDROSTATIC AND HYDRODYNAMIC LOADS AND EFFECTS OF BUOYANCY;

D. HAVE FLOODPROOFING MEASURES THAT ARE DESIGNED TAKING INTO CONSIDERATION THE NATURE OF FLOOD-RELATED HAZARDS; FREQUENCY, DEPTH AND DURATION OF FLOODING; RATE OF RISE AND FALL OF FLOODWATER; SOIL CHARACTERISTICS; FLOOD-BORNE DEBRIS; AT LEAST 12 HOURS OF FLOOD WARNING TIME FROM A CREDIBLE SOURCE; AND TIME NECESSARY TO IMPLEMENT ANY MEASURES THAT REQUIRE HUMAN INTERVENTION;

E. HAVE AT LEAST ONE DOOR ABOVE THE APPLICABLE FLOOD ELEVATION THAT ALLOWS HUMAN INGRESS AND EGRESS DURING CONDITIONS OF FLOODING;

F. HAVE AN OPERATIONS AND MAINTENANCE PLAN THAT IS FILED WITH LOCAL EMERGENCY MANAGEMENT OFFICIALS AND THAT SPECIFIES THE OWNER/OCCUPANT'S RESPONSIBILITIES TO MONITOR FLOOD POTENTIAL; THE LOCATION OF ANY SHIELDS, DOORS, CLOSURES, TOOLS, OR OTHER GOODS THAT ARE REQUIRED FOR IMPLEMENTATION; MAINTENANCE OF SUCH GOODS; METHODS OF INSTALLATION; AND PERIODIC INSPECTION; AND

G. BE CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER OR LICENSED ARCHITECT, THROUGH EXECUTION OF A FLOODPROOFING CERTIFICATE THAT STATES THAT THE DESIGN AND METHODS OF CONSTRUCTION MEET THE REQUIREMENTS OF THIS SECTION. THE FLOODPROOFING CERTIFICATE SHALL BE SUBMITTED WITH THE CONSTRUCTION DRAWINGS AS REQUIRED IN SECTION 16.702(E)(1)(XIII) OF THIS SUBTITLE.

(F) ADDITIONS AND EXPANSIONS

(1) VERTICAL AND/OR HORIZONTAL ADDITIONS AND EXPANSIONS PROPOSED FOR A BUILDING OR STRUCTURE THAT WAS CONSTRUCTED AFTER THE MARCH 15, 1977, ARE PROHIBITED UNLESS APPROVED BY ALTERNATIVE COMPLIANCE. IF APPROVED, VERTICAL AND HORIZONTAL ADDITIONS AND EXPANSIONS SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF SECTION 16.703 OF THIS SUBTITLE AND THIS SECTION.

(2) IN NONTIDAL WATERS OF THE STATE THAT ARE SUBJECT TO THE REGULATORY AUTHORITY OF MDE, ALL HORIZONTAL ADDITIONS SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF SECTION 16.703 OF THIS SUBTITLE AND THIS SECTION AND:

(I) IF THE ADDITION IS STRUCTURALLY CONNECTED TO THE BASE BUILDING, THE REQUIREMENTS OF PARAGRAPH (3) APPLY.

(II) IF THE ADDITION HAS AN INDEPENDENT FOUNDATION AND IS NOT STRUCTURALLY CONNECTED TO THE BASE BUILDING AND THE COMMON WALL WITH THE BASE BUILDING IS MODIFIED BY NO MORE THAN A DOORWAY, THE BASE BUILDING IS NOT REQUIRED TO BE BROUGHT INTO COMPLIANCE.

(3) VERTICAL AND/OR HORIZONTAL ADDITIONS THAT ARE STRUCTURALLY CONNECTED TO THE BASE BUILDING OF NONCONFORMING STRUCTURES LOCATED WITHIN SPECIAL FLOOD

HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, SHALL NOT BE EXPANDED OR ENLARGED, UNLESS APPROVED BY ALTERNATIVE COMPLIANCE.:

(I) IF THE ADDITION COMBINED WITH OTHER PROPOSED REPAIRS, ALTERATIONS, OR MODIFICATIONS OF THE BASE BUILDING CONSTITUTES SUBSTANTIAL IMPROVEMENT, THE BASE BUILDING AND THE ADDITION SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF SECTION 16.703 OF THIS SUBTITLE AND THIS SECTION.

(II) IF THE ADDITION CONSTITUTES SUBSTANTIAL IMPROVEMENT, THE BASE BUILDING AND THE ADDITION SHALL COMPLY WITH ALL OF THE APPLICABLE REQUIREMENTS OF SECTION 16.703 OF THIS SUBTITLE AND THIS SECTION.

(4) FOR VERTICAL AND/OR HORIZONTAL ADDITIONS WITH INDEPENDENT FOUNDATIONS THAT ARE NOT STRUCTURALLY CONNECTED TO THE BASE BUILDING AND THE COMMON WALL WITH THE BASE BUILDING IS MODIFIED BY NO MORE THAN A DOORWAY, THE BASE BUILDING IS NOT REQUIRED TO BE BROUGHT INTO COMPLIANCE.

(5) A VERTICAL AND/OR HORIZONTAL ADDITION TO A BUILDING OR STRUCTURE THAT IS NOT SUBSTANTIAL IMPROVEMENT, AND IS NOT LOCATED IN NONTIDAL WATERS OF THE STATE, IS NOT REQUIRED TO COMPLY WITH THIS SECTION.

[NOTE: SEE "SUBSTANTIAL IMPROVEMENT/SUBSTANTIAL DAMAGE DESK REFERENCE" (FEMA P-758).]

(G) ACCESSORY STRUCTURES.

(1) REPLACEMENT OF AN EXISTING ACCESSORY STRUCTURE LOCATED IN A SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, IS PERMISSIBLE PROVIDED THE SUBJECT STRUCTURE EXISTED AS OF JULY 15, 2014, AND PROVIDED IT IS BEING REPLACED IN KIND OR WITH A SMALLER VERSION LIMITED TO NOT MORE THAN 300 SQUARE FEET IN TOTAL FLOOR AREA. IF THERE IS A DISCRETIONARY ELEMENT IN THE REPLACEMENT LOCATION FOR AN ACCESSORY STRUCTURE, AN ALTERNATIVE LOCATION THAT WOULD PLACE THE STRUCTURE OUTSIDE A SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, IS PREFERRED.

(2) ACCESSORY STRUCTURES SHALL COMPLY WITH THE ELEVATION REQUIREMENTS AND OTHER REQUIREMENTS OF SUBSECTION (D) OF THIS SECTION, THE FLOODPROOFING REQUIREMENTS OF SUBSECTION (E)(2) OF THIS SECTION, OR SHALL:

(I) BE USEABLE ONLY FOR PARKING OF VEHICLES OR LIMITED STORAGE;

(II) BE CONSTRUCTED WITH FLOOD DAMAGE-RESISTANT MATERIALS BELOW THE BASE FLOOD ELEVATION;

(III) BE CONSTRUCTED AND PLACED TO OFFER THE MINIMUM RESISTANCE TO THE FLOW OF FLOODWATERS;

(IV) BE ANCHORED TO PREVENT FLOTATION;

(V) HAVE ELECTRICAL SERVICE AND MECHANICAL EQUIPMENT ELEVATED TO OR ABOVE THE BASE FLOOD ELEVATION; AND

(VI) HAVE FLOOD OPENINGS THAT MEET THE REQUIREMENTS OF SUBSECTION (D)(3) OF THIS SECTION.

**SECTION 16.705. RESERVED.**

**SECTION 16.706. ALTERNATIVE COMPLIANCE.**

(A) GENERAL.

(1) *STANDARD.* THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING, DEPARTMENT OF PUBLIC WORKS, AND DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS SHALL HAVE THE POWER TO CONSIDER AND APPROVE, APPROVE WITH CONDITIONS OR DENY ALTERNATIVE COMPLIANCE FROM THE STRICT APPLICATION OF THE REQUIREMENTS OF THESE REGULATIONS AND SECTION 3115 OF THE HOWARD COUNTY BUILDING CODE UNDER THE ALTERNATIVE COMPLIANCE PROCESS. AN ALTERNATIVE COMPLIANCE SHALL BE APPROVED ONLY IF IT IS DETERMINED TO NOT BE CONTRARY TO THE PUBLIC INTEREST AND WHERE, OWING TO SPECIAL CONDITIONS OF THE LOT OR PARCEL, A LITERAL ENFORCEMENT OF THE PROVISIONS OF THESE REGULATIONS, AN UNNECESSARY HARDSHIP WOULD RESULT.

(2) *CONDITIONS.* UPON CONSIDERATION OF THE PURPOSES OF THESE REGULATIONS, THE INDIVIDUAL CIRCUMSTANCES, AND THE CONSIDERATIONS AND LIMITATIONS OF THIS SECTION, THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING, DEPARTMENT

OF PUBLIC WORKS, AND DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS MAY ATTACH SUCH CONDITIONS TO ALTERNATIVE COMPLIANCE AS IT DEEMS NECESSARY TO FURTHER THE PURPOSES OF THESE REGULATIONS.

(3) SPECIFIC PROHIBITIONS. NO ALTERNATIVE COMPLIANCE SHALL BE GRANTED FOR AN ACCESSORY STRUCTURE EXCEEDING 600 SQUARE FEET.

(4) *RECORDED AGREEMENTS REQUIRED.* A SIGNED DECLARATION OF LAND RESTRICTION (NONCONVERSION AGREEMENT) IS REQUIRED AS A CONDITION OF RECEIVING THE ALTERNATIVE COMPLIANCE. THE AGREEMENT MUST BE RECORDED WITH THE DEED. IF AN ALTERNATIVE COMPLIANCE IS GRANTED AND THE ACCESSORY STRUCTURE IS NOT ELEVATED OR DRY FLOOD PROOFED, THE CONDITIONS IN SECTION 16.704(G) OF THIS SUBTITLE APPLY.

(5) *COUNTY NOTIFICATION – LOWEST FLOOR BELOW REQUIRED ELEVATION.* THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING, DEPARTMENT OF PUBLIC WORKS, AND DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS SHALL NOTIFY, IN WRITING, ANY APPLICANT TO WHOM AN ALTERNATIVE COMPLIANCE IS GRANTED TO CONSTRUCT OR SUBSTANTIALLY IMPROVE A BUILDING OR STRUCTURE WITH ITS LOWEST FLOOR BELOW THE ELEVATION REQUIRED BY THESE REGULATIONS THAT THE ALTERNATIVE COMPLIANCE IS TO THE FLOODPLAIN MANAGEMENT REQUIREMENTS OF THESE REGULATIONS ONLY, AND THAT THE COST OF FEDERAL FLOOD INSURANCE WILL BE COMMENSURATE WITH THE INCREASED RISK, WITH RATES UP TO $25 PER $100 OF INSURANCE COVERAGE.

(6) *RECORDS.* A RECORD OF ALL ALTERNATIVE COMPLIANCE ACTIONS, INCLUDING JUSTIFICATION FOR ISSUANCE SHALL BE MAINTAINED PURSUANT TO SECTION 16.702(B)(11) OF THIS SUBTITLE.

(B) *APPLICATION FOR AN ALTERNATIVE COMPLIANCE.*

(1) THE OWNER OF PROPERTY, OR THE OWNER'S AUTHORIZED AGENT, FOR WHICH AN ALTERNATIVE COMPLIANCE IS SOUGHT SHALL SUBMIT AN APPLICATION FOR AN ALTERNATIVE COMPLIANCE TO THE DEPARTMENT OF PLANNING AND ZONING.

(2) AT A MINIMUM, THE APPLICATION SHALL CONTAIN THE FOLLOWING INFORMATION: NAME, ADDRESS, AND TELEPHONE NUMBER OF THE APPLICANT AND PROPERTY OWNER; LEGAL DESCRIPTION OF THE PROPERTY; PARCEL MAP; DESCRIPTION OF THE EXISTING USE; DESCRIPTION OF THE PROPOSED USE; SITE MAP SHOWING THE LOCATION OF FLOOD HAZARD

AREAS, DESIGNATED FLOODWAY BOUNDARIES, FLOOD ZONES, BASE FLOOD ELEVATIONS, AND FLOOD PROTECTION SETBACKS; DESCRIPTION OF THE ALTERNATIVE COMPLIANCE SOUGHT; AND REASON FOR THE ALTERNATIVE COMPLIANCE REQUEST. ALTERNATIVE COMPLIANCE APPLICATIONS SHALL SPECIFICALLY ADDRESS EACH OF THE CONSIDERATIONS IN SUBSECTION (C) OF THIS SECTION.

(3) IF THE APPLICATION IS FOR AN ALTERNATIVE COMPLIANCE TO ALLOW THE LOWEST FLOOR OF A BUILDING OR STRUCTURE BELOW THE APPLICABLE MINIMUM ELEVATION REQUIRED BY THESE REGULATIONS, THE APPLICATION SHALL INCLUDE A STATEMENT SIGNED BY THE OWNER THAT, IF GRANTED, THE CONDITIONS OF THE ALTERNATIVE COMPLIANCE SHALL BE RECORDED ON THE DEED OF THE PROPERTY.

(C) *CONSIDERATIONS FOR ALTERNATIVE COMPLIANCE.* THE FLOODPLAIN ADMINISTRATOR MAY REQUEST COMMENTS ON ALTERNATIVE COMPLIANCE APPLICATIONS FROM MDE (NFIP STATE COORDINATOR) AND SHALL PROVIDE SUCH COMMENTS TO THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING, DEPARTMENT OF PUBLIC WORKS, AND DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS. IN CONSIDERING ALTERNATIVE COMPLIANCE APPLICATIONS, THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING, DEPARTMENT OF PUBLIC WORKS, AND DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS SHALL CONSIDER AND MAKE FINDINGS OF FACT ON ALL EVALUATIONS, ALL RELEVANT FACTORS, REQUIREMENTS SPECIFIED IN OTHER SECTIONS OF THESE REGULATIONS, AND THE FOLLOWING FACTORS:

(1) THE DANGER THAT MATERIALS MAY BE SWEPT ONTO OTHER LANDS TO THE INJURY OF OTHERS.

(2) THE DANGER TO LIFE AND PROPERTY DUE TO FLOODING OR EROSION DAMAGE.

(3) THE SUSCEPTIBILITY OF THE PROPOSED DEVELOPMENT AND ITS CONTENTS (IF APPLICABLE) TO FLOOD DAMAGE AND THE EFFECT OF SUCH DAMAGE ON THE INDIVIDUAL OWNER.

(4) THE IMPORTANCE OF THE SERVICES TO THE COMMUNITY PROVIDED BY THE PROPOSED DEVELOPMENT.

(5) THE AVAILABILITY OF ALTERNATIVE LOCATIONS FOR THE PROPOSED USE WHICH ARE NOT SUBJECT TO, OR ARE SUBJECT TO LESS, FLOODING OR EROSION DAMAGE.

(6) THE NECESSITY TO THE FACILITY OF A WATERFRONT LOCATION, WHERE APPLICABLE, OR IF THE FACILITY IS A FUNCTIONALLY DEPENDENT USE.

(7) THE COMPATIBILITY OF THE PROPOSED USE WITH EXISTING AND ANTICIPATED DEVELOPMENT.

(8) THE RELATIONSHIP OF THE PROPOSED USE TO THE COMPREHENSIVE PLAN AND HAZARD MITIGATION PLAN FOR THAT AREA.

(9) THE SAFETY OF ACCESS TO THE PROPERTY IN TIMES OF FLOOD FOR PASSENGER VEHICLES AND EMERGENCY VEHICLES.

(10) THE EXPECTED HEIGHTS, VELOCITY, DURATION, RATE OF RISE, AND SEDIMENT TRANSPORT OF THE FLOODWATERS AND THE EFFECTS OF WAVE ACTION, IF APPLICABLE, EXPECTED AT THE SITE.

(11) THE COSTS OF PROVIDING GOVERNMENT SERVICES DURING AND AFTER FLOOD CONDITIONS, INCLUDING MAINTENANCE AND REPAIR OF PUBLIC UTILITIES AND FACILITIES SUCH AS SEWER, GAS, ELECTRICAL, AND WATER SYSTEMS, AND STREETS AND BRIDGES.

(12) THE COMMENTS PROVIDED BY MDE (NFIP STATE COORDINATOR).

(D) *LIMITATIONS FOR GRANTING ALTERNATIVE COMPLIANCE.* THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING, DEPARTMENT OF PUBLIC WORKS, AND DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS SHALL MAKE AN AFFIRMATIVE DECISION ON AN ALTERNATIVE COMPLIANCE REQUEST ONLY UPON:

(1) A SHOWING OF GOOD AND SUFFICIENT CAUSE. GOOD AND SUFFICIENT CAUSE DEALS SOLELY WITH THE PHYSICAL CHARACTERISTICS OF THE PROPERTY AND CANNOT BE BASED ON THE CHARACTER OF THE IMPROVEMENT, THE PERSONAL CHARACTERISTICS OF THE OWNER/INHABITANTS, OR LOCAL PROVISION THAT REGULATE STANDARDS OTHER THAN HEALTH AND PUBLIC SAFETY.

(2) A DETERMINATION THAT FAILURE TO GRANT THE ALTERNATIVE COMPLIANCE WOULD RESULT IN EXCEPTIONAL HARDSHIP DUE TO THE PHYSICAL CHARACTERISTICS OF THE PROPERTY. INCREASED COST OR INCONVENIENCE OF MEETING THE REQUIREMENTS OF THESE REGULATIONS DOES NOT CONSTITUTE AN EXCEPTIONAL HARDSHIP TO THE APPLICANT.

(3) A DETERMINATION THAT THE GRANTING OF AN ALTERNATIVE COMPLIANCE FOR DEVELOPMENT WITHIN ANY DESIGNATED FLOODWAY, OR FLOOD HAZARD AREA WITH BASE FLOOD ELEVATIONS BUT NO DESIGNATED FLOODWAY, WILL NOT RESULT IN INCREASED FLOOD HEIGHTS BEYOND THAT WHICH IS ALLOWED IN THESE REGULATIONS.

(4) A DETERMINATION THAT THE GRANTING OF AN ALTERNATIVE COMPLIANCE WILL NOT RESULT IN ADDITIONAL THREATS TO PUBLIC SAFETY; EXTRAORDINARY PUBLIC EXPENSE, NUISANCES, FRAUD OR VICTIMIZATION OF THE PUBLIC, OR CONFLICT WITH EXISTING LOCAL LAWS.

(5) A DETERMINATION THAT THE BUILDING, STRUCTURE OR OTHER DEVELOPMENT IS PROTECTED BY METHODS TO MINIMIZE FLOOD DAMAGES.

(6) A DETERMINATION THAT THE ALTERNATIVE COMPLIANCE IS THE MINIMUM NECESSARY TO AFFORD RELIEF, CONSIDERING THE FLOOD HAZARD.

(E) ALTERNATIVE COMPLIANCE PROHIBITED.

(1) AN ALTERNATIVE COMPLIANCE SHALL NOT BE ISSUED WITHIN ANY DESIGNATED REGULATORY FLOODWAY IF ANY INCREASE IN FLOOD LEVELS DURING THE BASE FLOOD DISCHARGE WOULD RESULT.

(2) AN ALTERNATIVE COMPLIANCE MAY NOT BE ISSUED FOR ANY PROPERTY LOCATED IN THE TIBER BRANCH WATERSHED UNLESS THE ALTERNATIVE COMPLIANCE:

(I) WAS REQUESTED ON OR BEFORE NOVEMBER 7, 2016;

(II) IS NECESSARY FOR THE RECONSTRUCTION OF EXISTING STRUCTURES OR INFRASTRUCTURE DAMAGED BY FLOOD, FIRE, OR OTHER DISASTER;

(III) IS NECESSARY FOR THE CONSTRUCTION OF A STORMWATER MANAGEMENT OR FLOOD CONTROL FACILITY AS PART OF A REDEVELOPMENT PROJECT;

(IV) IS NECESSARY FOR THE RETROFIT OF EXISTING FACILITIES OR INSTALLATION OF NEW FACILITIES INTENDED SOLELY TO IMPROVE STORMWATER MANAGEMENT OR FLOOD CONTROL FOR EXISTING DEVELOPMENT;

(V) IS REQUESTED AS PART OF A DEVELOPMENT PROPOSAL AND THE DIRECTOR OF THE DEPARTMENT OF PUBLIC WORKS, OR HIS DESIGNEE SERVING AS FLOODPLAIN ADMINISTRATOR, FINDS THAT UPON COMPLETION OF CONSTRUCTION OF THE DEVELOPMENT, WHICH MAY INCLUDE OFF-SITE IMPROVEMENTS WITHIN THE TIBER BRANCH WATERSHED, THERE WILL BE IMPROVEMENT TO FLOOD CONTROL IN THE TIBER BRANCH WATERSHED AT LEAST TEN PERCENT MORE THAN WHAT WOULD OTHERWISE BE REQUIRED BY LAW; OR

(VI) IS NECESSARY FOR THE CONSTRUCTION OF AN ADDITION, GARAGE, DRIVEWAY OR OTHER ACCESSORY USE IMPROVEMENT OF AN EXISTING RESIDENTIAL STRUCTURE ON PROPERTY LOCATED WITHIN THE TIBER BRANCH WATERSHED THAT INCREASES THE SQUARE FOOTAGE OF THE IMPERVIOUS SURFACES ON THE PROPERTY BY NO MORE THAN 25 PERCENT OVER THE

SQUARE FOOTAGE OF IMPERVIOUS SURFACES THAT EXISTED ON THE PROPERTY PRIOR TO THE EFFECTIVE DATE OF THIS BILL.

**SECTION 16.707. ENFORCEMENT.**

(A) COMPLIANCE REQUIRED.

(1) NO BUILDING, STRUCTURE OR DEVELOPMENT SHALL HEREAFTER BE LOCATED, ERECTED, CONSTRUCTED, RECONSTRUCTED, IMPROVED, REPAIRED, EXTENDED, CONVERTED, ENLARGED OR ALTERED WITHOUT FULL COMPLIANCE WITH THESE REGULATIONS AND ALL OTHER APPLICABLE REGULATIONS, UNLESS APPROVED BY AN ALTERNATIVE COMPLIANCE OR NECESSARY DISTURBANCE UNDER SECTION 16.115.

(2) FAILURE TO OBTAIN A PERMIT SHALL BE A VIOLATION OF THESE REGULATIONS AND SHALL BE SUBJECT TO PENALTIES IN ACCORDANCE WITH SUBSECTION (C) OF THIS SECTION.

(3) PERMITS ISSUED ON THE BASIS OF PLANS AND APPLICATIONS APPROVED BY THE DEPARTMENT OF INSPECTIONS LICENSES AND PERMITS ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR AUTHORIZE ONLY THE SPECIFIC ACTIVITIES SET FORTH IN SUCH APPROVED PLANS AND APPLICATIONS OR AMENDMENTS THERETO. USE, ARRANGEMENT, OR CONSTRUCTION OF SUCH SPECIFIC ACTIVITIES THAT ARE CONTRARY TO THAT AUTHORIZATION SHALL BE DEEMED A VIOLATION OF THESE REGULATIONS.

(B) NOTICE OF VIOLATION AND STOP WORK ORDER. IF THE DEPARTMENT OF INSPECTIONS LICENSES AND PERMITS DETERMINES THAT THERE HAS BEEN A VIOLATION OF ANY PROVISION OF THESE REGULATIONS, THE DEPARTMENT OF INSPECTIONS LICENSES AND PERMITS SHALL GIVE NOTICE OF SUCH VIOLATION TO THE OWNER, THE OWNER'S AUTHORIZED AGENT, AND THE PERSON RESPONSIBLE FOR SUCH VIOLATION, AND MAY ISSUE A STOP WORK ORDER. THE NOTICE OF VIOLATION OR STOP WORK ORDER SHALL BE IN WRITING AND SHALL:

(1) INCLUDE A LIST OF VIOLATIONS, REFERRING TO THE SECTION OR SECTIONS OF THESE REGULATIONS THAT HAVE BEEN VIOLATED;

(2) ORDER REMEDIAL ACTION WHICH, IF TAKEN, WILL AFFECT COMPLIANCE WITH THE PROVISIONS OF THESE REGULATIONS;

(3) SPECIFY A REASONABLE PERIOD OF TIME TO CORRECT THE VIOLATION;

(4) ADVISE THE RECIPIENTS OF THE RIGHT TO APPEAL; AND

(5) BE SERVED IN PERSON; OR

(6) BE POSTED IN A CONSPICUOUS PLACE IN OR ON THE PROPERTY AND SENT BY REGISTERED OR CERTIFIED MAIL TO THE LAST KNOWN MAILING ADDRESS, RESIDENCE, OR PLACE OF BUSINESS OF THE RECIPIENTS.

(C)VIOLATIONS AND PENALTIES. VIOLATIONS OF THESE REGULATIONS OR FAILURE TO COMPLY WITH THE REQUIREMENTS OF THESE REGULATIONS OR ANY CONDITIONS ATTACHED TO A PERMIT OR ALTERNATIVE COMPLIANCE SHALL CONSTITUTE A MISDEMEANOR. ANY PERSON RESPONSIBLE FOR A VIOLATION SHALL COMPLY WITH THE NOTICE OF VIOLATION OR STOP WORK ORDER. WHERE THERE IS ANY VIOLATION OF THIS SUBTITLE OR ANY ACTION TAKEN THEREUNDER, THE COUNTY SHALL INSTITUTE APPROPRIATE ACTION TO PREVENT, ENJOIN, OR COMPEL COMPLIANCE WITH THE PROVISIONS OF THIS SUBTITLE. IN ADDITION TO AND CONCURRENT WITH ALL OTHER REMEDIES AT LAW OR EQUITY, THE COUNTY MAY ENFORCE THE PROVISIONS OF THIS SUBTITLE WITH CIVIL PENALTIES PURSUANT TO THE PROVISIONS OF TITLE 24, "CIVIL PENALTIES" OF THE HOWARD COUNTY CODE. A VIOLATION IS A CLASS B OFFENSE. EACH DAY A VIOLATION CONTINUES SHALL BE CONSIDERED A SEPARATE OFFENSE. NOTHING HEREIN CONTAINED SHALL PREVENT HOWARD COUNTY, MARYLAND, FROM TAKING SUCH OTHER LAWFUL ACTION AS IS NECESSARY TO PREVENT OR REMEDY ANY VIOLATION.

**SECTION 16.708. SEVERABILITY.**

SHOULD ANY SECTION OR PROVISION OF THESE REGULATIONS BE DECLARED BY A COURT OF COMPETENT JURISDICTION TO BE UNCONSTITUTIONAL OR INVALID, SUCH DECISION SHALL NOT AFFECT THE VALIDITY OF THIS SUBTITLE OR SUBTITLE 1 OF TITLE 16 AS A WHOLE, OR ANY PART THEREOF OTHER THAN THE PART SO DECLARED TO BE UNCONSTITUTIONAL OR INVALID.

## Title 16. Planning, Zoning and Subdivisions and Land Development Regulations.

## Subtitle 12. Forest Conservation.

### Section 16.1201. Definitions.

Except as provided in subsection (ff) of this section, words and phrases used in this subtitle have their usual meaning unless defined in the Subdivision and Land Development Regulations as set forth in subtitle 1 of this title or as follows in this section:

(v) *Net Tract Area.* "Net tract area" means the total area to the nearest one-tenth acre, whether forested or not, of a proposed development, exclusive of any 100-year floodplain INCLUDING ANY SPECIAL

FLOOD HAZARD AREAS, WHICH MAY CONSIST OF FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, utility transmission line easements, or preservation parcel as referenced in the zoning regulations. "Net tract area" is to be used in calculating any reforestation or afforestation obligations that may be created by the proposed development.

(bb) *Stream Restoration Project.* "Stream Restoration Project" means an activity that:

(1) Is designed to stabilize stream banks or enhance stream function or habitat located within an existing stream, waterway or floodplain;

(2) Avoids and minimizes impacts to forests and provides for replanting on-site an equivalent number of trees to the number removed by the project;

(3) May be performed under a municipal separate storm sewer system permit, a watershed implementation plan growth offset, or another plan administered by the state or Howard County to achieve or maintain water quality standards; and

(4) Is not performed to satisfy stormwater management, wetlands mitigation, or any other regulatory requirement associated with proposed development activity.

## Section 16.1205. Forest retention priorities.

(b) *On-Site Forest Retention Priorities.* The following vegetation and specific areas are considered priority and are listed in order of preference for on-site retention and protection in the County. Subdivision, site development, and grading shall leave the following vegetation and specific areas in an undisturbed condition unless demonstrated, to the satisfaction of the Department, that reasonable efforts have been made to protect them and the plan cannot be reasonably altered or that forest planting in an alternate location would have greater environmental benefit:

(1) Howard County Green Infrastructure Network.

(2) 100-year floodplain INCLUDING ANY SPECIAL FLOOD HAZARD AREAS, WHICH MAY CONSIST OF FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, as defined in the Subdivision Regulations.

(3) Stream buffers as defined in the Subdivision Regulations;

(4) Forested wetlands and wetland buffers as defined in the Subdivision Regulations;

(5) Critical habitat areas and forest corridors with a minimum width of 300 feet, where practical, for wildlife movement;

(6) Steep slopes as defined in the Subdivision Regulations and slopes of 15 percent or greater with a soil erodibility factor greater than 0.35;

(7) Forest contiguous with the priority areas listed above;

(8) Forest contiguous with off-site forest, if the off-site forest is also protected by a Forest Conservation Easement; and

(9) Property line and right-of-way buffers, particularly adjacent to scenic roads.

**Section 16.1208. Reforestation and afforestation location priorities, preferred location, and preferred methods.**

(a) *Location Priorities.* The following are priority locations for reforestation and afforestation, and are listed in order of preference. The Department may approve lower priority locations on this list when such locations better achieve the intent of this subtitle or County land use regulations. If off-site planting would have greater environmental benefit, the Department may approve off-site reforestation or afforestation in high-priority locations within Howard County, preferably within the same subbasin or watershed:

(1) Establish or enhance forest in the Howard County Green Infrastructure Network;

(2) Establish or enhance forest in 100-year floodplains INCLUDING ANY SPECIAL FLOOD HAZARD AREAS, WHICH MAY CONSIST OF FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, and buffers to intermittent and perennial streams as defined in the Subdivision Regulations;

(3) Establish or enhance forest in wetlands and wetland buffers as defined in the Subdivision Regulations;

(4) Establish or enhance critical habitat buffers and forest corridors for wildlife movement, the corridors, where practical, being a minimum of 300 feet in width;

(5) Establish plantings to stabilize slopes of 25 percent or greater and slopes of 15 percent or greater with a soil K value greater than 0.35;

(6) Establish forest areas adjacent to existing forests to increase the overall area of contiguous forest cover;

(7) Establish forest areas between small forest and tree stands to build a forest community; and

(8) Establish buffers along property lines between differing land uses when appropriate, or adjacent to highways or utility rights-of-way, particularly adjacent to scenic roads.

## Title 18. Public Works.

## Subtitle 9. Stormwater Management.

**Section 18.901. Definitions.**

The following terms have the meanings indicated:

(a) *Administration* means the Maryland Department of the Environment (MDE) Water Management Administration (WMA).

(b) *Adverse impact* means any deleterious effect on waters or wetlands, including their quality, quantity, surface area, species composition, aesthetics or usefulness for human or natural uses which are or may potentially be harmful or injurious to human health, welfare, safety or property, to biological productivity, diversity or stability, or which unreasonably interfere with the enjoyment of life or property, including outdoor recreation.

(c) *Agricultural land management practices* means those methods and procedures used in the cultivation of land in order to further crop and livestock production and conservation of related soil and water resources.

(d) *Applicant* means a person, firm, or governmental agency who applies for approval of a project to carry out construction activities involving stormwater management.

(e) *Approving agency* means the entity responsible for the review and approval of stormwater management plans. As set forth in the Howard County Design Manual and depending on the nature of the project, the approving agency is the Department of Planning and Zoning or the Department of Public Works.

(f) *Best management practice (BMP)* means any structural device or nonstructural practice designed to temporarily store or treat stormwater runoff in order to mitigate flooding, reduce pollution, or provide other amenities.

(g) *Channel protection storage volume (cPv)* means the volume used to design structural management practices to control stream channel erosion. Methods for calculating the channel protection storage volume are specified in the 2000 Maryland Stormwater Design Manual.

(h) *Clearing* means the removal of trees and brush from the land, but shall not include the ordinary mowing of grass.

(i) *Concept stage* means the first stage of the stormwater management design process. Approval of the environmental concept plan constitutes the approval of the concept stage.

(j) *County* means Howard County, Maryland.

(k) *Design manual* means the 2000 Maryland Stormwater Design Manual, and all subsequent revisions, that serves as the official guide for stormwater management principles, methods, and practices. The 2000 Maryland Stormwater Design Manual VOLUME I AND II MAY be supplemented by the Howard County Design Manual.

(l) *Develop land* means to change the runoff characteristics of a parcel of land or lot in conjunction with residential, commercial, industrial, or institutional construction or alteration.

(m) *Drainage area* means an area contributing runoff to a single point measured in a horizontal plane, which is enclosed by a ridge line.

(n) *Easement* means a grant or reservation by the owner of land for the use of such land by others for a specific purpose, and which shall be recorded in the land records of Howard County.

(o) *Environmental concept plan* means the first of three required plan approvals that includes the information necessary to allow an initial evaluation of a proposed project.

(p) *Environmental site design (ESD)* means using small-scale stormwater management practices, nonstructural techniques, and better site planning to mimic natural hydrologic runoff characteristics and minimize the impact of land development on water resources. Methods for designing ESD practices are specified in the design manual.

(q) *Exemption* means those land development activities that are not subject to the stormwater management requirements of this subtitle.

(r) *Extended detention* means a stormwater design feature that provides gradual release of a volume of water in order to increase settling of pollutants and protect downstream channels from frequent storm events. Methods for designing extended detention BMPs are specified in the design manual.

(s) *Extreme flood volume (Qf)* means the storage volume required to control those infrequent but large storm events in which the overbank flows reach or exceed the boundaries of the 100-year floodplain INCLUDING ANY SPECIAL FLOOD HAZARD AREA, WHICH MAY CONSIST OF FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS.

(t) *Final stage* means the third stage of the stormwater management design process. Approval of the grading plan constitutes the approval of the final stage.

(u) *Flow attenuation* means prolonging the flow time of runoff to reduce the peak discharge.

(v) *Grading* means any act by which soil is cleared, stripped, stockpiled, excavated, scarified, filled, or any combination thereof.

(w) *Grading plan* means the last of a multi-step plan-approval process that includes the information necessary to allow all approvals and permits to be issued by the approving agency.

(x) *Impervious area* or *impervious surface* means any surface that does not allow stormwater to infiltrate into the ground.

(y) *Infiltration* means the passage or movement of water into the soil surface.

(z) *Maximum extent practicable (MEP)* means designing stormwater management systems so that all reasonable opportunities for using ESD planning techniques and treatment practices are exhausted and, only where absolutely necessary, implementing a structural BMP.

(aa) *Off-site stormwater management* means the design and construction of a facility necessary to control stormwater from one or more properties other than the one on which the stormwater management facility lies.

(bb) *On-site stormwater management* means the design and construction of a facility necessary to control stormwater from one property within the boundary of the subject property.

(cc) *Overbank flood protection volume (Qp)* means the volume controlled by structural practices to prevent an increase in the frequency of the out of bank flooding by development. Methods for calculating the overbank flood protection volume are specified in the design manual.

(dd) *Person* means the Federal Government, the State, any County, Municipal Corporation, or other political subdivision of the State, or any of their units; an individual, receiver, trustee, guardian, executor, administrator, fiduciary, or representative of any kind; or any partnership, firm, association, public or private corporation, or any other entity.

(ee) *Planning techniques* means a combination of strategies employed early in project design to reduce the impact from development and to incorporate natural features into a stormwater management plan.

(ff) *Private stormwater management facility* means any best management practice which is not to be owned and maintained by the County.

(gg) *Recharge volume (REv)* means that portion of the water quality volume used to maintain groundwater recharge rates at development sites. Methods for calculating the recharge volume are specified in the design manual.

(hh) *Redevelopment* means any construction, alteration, or improvement performed on sites where existing site impervious area exceeds 40 percent and where existing land use is commercial, industrial, institutional, or multifamily.

(ii) *Retrofitting* means the implementation of ESD practices, the construction of a structural BMP in a previously developed area, the modification of an existing structural BMP, or the implementation of a nonstructural practice to improve water quality over current conditions.

(jj) *Sediment* means soil or other surficial materials transported or deposited by the action of wind, water, ice, or gravity as a product of erosion.

(kk) *Site* means a tract of land, lot or parcel of land or combination of tracts, lots, or parcels of land, which are in one ownership, or are contiguous and in diverse ownership where development is to be performed as part of a unit, subdivision or project.

(ll) *Site development stage* means the second stage of the stormwater management design process. Approval of one of the following plans constitutes the approval of the site development stage: sketch plan, preliminary plan, preliminary equivalent sketch plan, final plan, or site development plan as defined in section 16.108 of the Howard County Subdivision and Land Development Regulations. The applicable plan will act as the second of three required plan approvals that include the information necessary to allow a detailed evaluation of a proposed project.

(mm) *Stabilization* means the prevention of soil movement by any of various vegetative or structural means.

(nn) *Stormwater management design process* means the three stage process required by MDE for the review of stormwater management. The three stages include concept, site development and final stages as defined herein.

(oo) *Stormwater management system* means natural areas, ESD practices, stormwater management measures, and any other structure through which stormwater flows, infiltrates, or discharges from a site.

(pp) *Stripping* means any activity which removes the vegetative cover including tree removal, clearing, grubbing, and storage or removal of topsoil.

(qq) *Waiver* means the reduction of stormwater management requirements for a specific development on a case-by-case basis.

(rr) *Watershed* means the total drainage area contributing runoff to a single point.

(ss) *Watershed management plan* means a plan developed by the County for the purpose of implementing different stormwater management policies for waivers and redevelopment. A watershed management plan shall contain the items set forth in section 18.908 of this subtitle.

(tt) *Watershed protection and restoration fee* means a fee, as set forth in title 20, subtitle 11 of this Code.

(uu) *Water quality volume (WQv)* means the storage needed to capture and treat the runoff from 90 percent of the average annual rainfall at a development site. Methods for calculating the water quality volume are specified in the design manual.

**Section 18.905. Stormwater management design process.**

(b) *Contents and Submission of Stormwater Management.* Stormwater management design shall contain the following:

(1) A concept stage that provides sufficient information for an initial assessment of the proposed project and whether stormwater management can be provided according to this subtitle. Plans submitted for concept stage approval shall include, but are not limited to:

(i) A map at a scale specified by the Department of Planning and Zoning showing site location, existing natural features, water and other sensitive resources, topography, and natural drainage patterns;

(ii) The anticipated location of all proposed impervious areas, buildings, roadways, parking, sidewalks, utilities, and other site improvements;

(iii) The location of the proposed limit of disturbance, erodible soils, steep slopes, and areas to be protected during construction;

(iv) Preliminary estimates of stormwater management requirements, the selection and location of ESD practices to be used, and the location of all points of discharge from the site;

(v) A narrative that supports the concept design and describes how ESD will be implemented to the MEP; and

(vi) Any other information required by the County.

(2) Following concept stage approval by the County, the owner or developer shall submit plans meeting requirements for the site development stage.

Plans submitted for site development stage approval shall be of sufficient detail to allow the plan to be reviewed and shall include, without limitation, the following items:

(i) All information provided during the concept stage;

(ii) Site layout, exact impervious area locations and acreages, proposed topography, delineated drainage areas at all points of discharge from the site, and stormwater volume computations for ESD practices and quantity control structures;

(iii) A proposed erosion and sediment control plan that contains the construction sequence, any phasing necessary to limit earth disturbances and impacts to natural resources, and an overlay plan showing the types and locations of ESD and erosion and sediment control practices to be used;

(iv) A narrative that supports the site design, describes how ESD will be used to meet the minimum control requirements, and justifies any proposed structural stormwater management measure; and

(v) Any other information required by the County.

(3) Following site development stage approval by the County, the owner or developer shall submit plans meeting requirements for final stage. Plans submitted for final stage approval shall be of sufficient detail to allow all approvals and permits to be issued according to the following:

(i) Final erosion and sediment control plans shall be submitted according to COMAR 26.17.01.05; and

(ii) Final stormwater management design shall be submitted for approval in the form of construction drawings and shall be accompanied by a report that includes sufficient information to evaluate the effectiveness of the proposed runoff control design.

(4) Reports submitted for final stormwater management design shall include, but are not limited to:

(i) Geotechnical investigations including soil maps, borings, site specific recommendations, and any additional information necessary for the final stormwater management design;

(ii) Drainage area maps depicting post development runoff flow path and land use;

(iii) Hydrologic computations of the applicable ESD and unified sizing criteria according to the design manual for all points of discharge from the site;

(iv) Hydraulic and structural computations for all ESD practices and structural stormwater management measures to be used;

(v) A narrative that supports the final stormwater management design; and

(vi) Any other information required by the County.

(5) Construction drawings submitted for final stormwater management design approval shall include, but are not limited to:

(i) A vicinity map;

(ii) Existing and proposed topography and proposed drainage areas, including areas necessary to determine downstream analysis for proposed stormwater management facilities;

(iii) Any proposed improvements including location of buildings or other structures, impervious surfaces, storm drainage facilities, and all grading;

(iv) The location of existing and proposed structures and utilities;

(v) Any easements and rights-of-way;

(vi) The delineation, if applicable, of the 100-year floodplain INCLUDING ANY SPECIAL FLOOD HAZARD AREAS, WHICH MAY CONSIST OF FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS and any on-site wetlands;

(vii) Structural and construction details including representative cross sections for all components of the proposed drainage system or systems, and stormwater management facilities;

(viii) All necessary construction specifications;

(ix) A sequence of construction;

(x) Data for total site area, disturbed area, new impervious area, and total impervious area;

(xi) A table showing the ESD and unified sizing criteria volumes required in the design manual;

(xii) A table of materials to be used for stormwater management facility planting;

(xiii) All soil boring logs and locations;

(xiv) An inspection and maintenance schedule;

(xv) Certification by the owner/developer that all stormwater management construction will be done according to this plan;

(xvi) An as-built certification signature block to be executed after project completion; and

(xvii) Any other information required by the County.

(6) If a stormwater management plan involves direction of some or all runoff off of the site, the developer shall obtain from adjacent property owners any easements or other necessary property interests concerning flowage of water.

***Section 3. And Be It Further Enacted*** *by the County Council of Howard County, Maryland that this Act shall become effective 61 days after its enactment.*

**Amendment No. 1 to Council Bill No. 61-2026**

**BY: The Chairperson at the request of the County Executive**

**Legislative Day No. 14**
**Date: October 30, 2026**

**Amendment No. 1**

(*This Amendment makes the following corrections:*

1. *In the titles, corrects the agency;*
2. *Requires that development in a floodway show that the encroachment will not increase flood levels;*
3. *Prohibits the use of CLOMR-F and LOMR-F to justify otherwise prohibited development in the floodway; and*
4. *Provides that DPW critical and essential facilities like the wastewater treatment plants, pumping stations, and drinking water tanks, are exempt from prohibited development in the floodway but such development must comply with all other requirements provided for development in a floodway.*)

In the short title, strike "MEMA" and substitute "MDE".

In the title, strike "Emergency Management Agency" and substitute "Department of the Environment".

On page 63, in line 19, after "FLOODWAYS." insert "AREAS DESIGNATED AS FLOODWAYS ON THE FLOOD INSURANCE RATE MAP OR FLOOD INSURANCE STUDY ARE EXTREMELY HAZARDOUS DUE TO THE VELOCITY OF FLOODWATERS WHICH CARRY DEBRIS, POTENTIAL PROJECTILES, AND EROSION POTENTIAL. ENCROACHMENTS, INCLUDING FILL, NEW CONSTRUCTION, SUBSTANTIAL IMPROVEMENTS, AND OTHER DEVELOPMENT, ARE PROHIBITED WITHIN A DESIGNATED FLOODWAY UNLESS IT HAS BEEN DEMONSTRATED THROUGH HYDROLOGIC AND HYDRAULIC ANALYSES PERFORMED IN ACCORDANCE WITH STANDARD ENGINEERING PRACTICE THAT THE PROPOSED ENCROACHMENT SHALL NOT RESULT IN ANY INCREASE IN FLOOD LEVELS WITHIN THE COMMUNITY DURING THE OCCURRENCE OF THE BASE FLOOD DISCHARGE. THE COUNTY SHALL REVIEW AND APPROVE THE TECHNICAL ANALYSIS PRIOR TO ISSUANCE OF ANY PERMIT.".

On page 63, in line 27, strike "; AND " and substitute a period.



I certify that this a true copy of
Am 1 to CB 61-2026
passed on October 30, 2026
Michelle Harrod
Council Administrator

On page 64, in line 2, strike "; OR" and substitute a period and, following the period, insert the following:

"CLOMR-FS AND LOMR-FS CANNOT BE USED TO CIRCUMVENT THIS PROHIBITION AND WILL NOT BE RECOGNIZED BY THE COUNTY. THE ANALYSIS SHALL BE SUPPORTED BY A NO-RISE CERTIFICATION PREPARED, SEALED, AND SIGNED BY A LICENSED PROFESSIONAL ENGINEER.".

On page 64, after line 7, insert:

"(IV) DEPARTMENT OF PUBLIC WORKS CRITICAL AND ESSENTIAL FACILITIES, INCLUDING BUT NOT LIMITED TO WASTEWATER TREATMENT PLANTS, PUMPING STATIONS, AND DRINKING WATER TANKS, ARE EXEMPT FROM THE PROHIBITIONS OF THIS SECTION AT THE DISCRETION OF THE FLOODPLAIN ADMINISTRATOR, BUT SHALL ADDRESS ALL OTHER REQUIREMENTS OF THESE REGULATIONS.".

Docusign Envelope ID: 4926F3F1-F0BF-861D-806A-C292240561BE

Date: September 24, 2026

To: Brandee Ganz, Chief Administrative Officer
Department of County Administration

From: Yosef Kebede, P.E., Director, Floodplain Administrator
Department of Public Works

Signed by:
Yosef Kebede
B4217725E8EC47C...

Subject: Proposed Adoption of Updated Floodplain Management Ordinance (Title 16, Subtitle 7)

The Department of Public Works (DPW), in coordination with the Department of Inspections, Licenses & Permits (DILP) and the Department of Planning and Zoning (DPZ), has completed a comprehensive update to Howard County's Floodplain Management Ordinance (Title 16, Subtitle 7). This effort aligns County code with current Federal and State requirements, incorporates new locally developed floodplain data, and modernizes regulatory language to better protect life, property, and public infrastructure.

The intent of the proposed legislation is to adopt Howard County's updated Floodplain Management Ordinance based on the Maryland Model Floodplain Ordinance and recent Federal Emergency Management Agency (FEMA) guidance, while preserving and clarifying existing County-specific standards. This update supports continued compliance with the National Flood Insurance Program (NFIP), maintains eligibility for FEMA funding, and reflects lessons learned from recent flood events.

Major changes and amendments include:

1. **Incorporation of Updated Floodplain Mapping and Data**
   The ordinance adopts the latest FEMA Flood Insurance Study (FIS), Flood Insurance Rate Maps (FIRMs), and Howard County Floodplains developed in 2025 and 2026 using detailed study and Base Level Engineering methods. This ensures the County uses the most accurate flood hazard information available.
2. **Clarification of Roles and Responsibilities**
   Duties of the Floodplain Administrator and supporting agencies (DPW, DILP, DPZ) have been updated for clarity, consistency, and operational accuracy. These revisions reflect current practice and ensure that each agency's responsibilities are clearly defined in areas such as permit review, inspections, map changes, and enforcement.
3. **Expanded and Updated Definitions**
   Numerous definitions were revised or added, including Accessory Structures, Agricultural Structures, Flood Protection Setback, Base Flood Elevation, Special Flood Hazard Areas, Substantial Improvement, and others. These updates align the County with State requirements, FEMA Technical Bulletins, and NFIP standards, while also clarifying how County departments interpret and apply key terms.
4. **Permit Process Modernization**
   The ordinance clarifies permit requirements for all development in Special Flood Hazard Areas, including elevating structures, using fill, placing accessory structures, making additions, and altering watercourses. It strengthens application requirements, including elevation certificates and hydrologic and hydraulic analyses where required.

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5. **Revisions to Standards for Construction in Flood Hazard Areas**
   Requirements for residential and nonresidential construction were updated to reflect modern building code standards, including elevation requirements, limitations on fill, flood openings, mechanical/electrical system placement, and use of flood damage–resistant materials. Additional protections were added for critical and essential facilities.
6. **Accessory Structures and Agricultural Structures**
   The updates clarify what types of structures qualify as accessory or agricultural, consistent with County zoning regulations and FEMA guidance. Requirements now specify when variances are required, applicable size limitations, and construction standards for these structures.
7. **Updates to Procedures for Variances and Appeals**
   The variance section has been significantly reorganized to align with NFIP criteria, including hardship standards, limitations on variance eligibility, requirements for properties in the Tiber Branch Watershed, and documentation obligations for applicants and the County.
8. **Enhanced Enforcement Provisions**
   The ordinance strengthens violation and enforcement procedures, including stop-work orders, penalties, required corrective actions, and record-keeping expectations, consistent with County code and NFIP program requirements.

Fiscal Impact

After adoption of the updated Floodplain Management Ordinance, additional forms to document permit applications and reviews for development in floodplains will be established, however additional fees will not be necessary. The revisions do not require additional staff and can be implemented within existing workflows. Training needs will be managed through normal departmental processes.

If you have any questions or need additional detail, please feel free to contact me at extension x4407.

cc:

Robert J. Frances, P.E., Director, DILP
Don Mock, P.E., Chief of Plan Review, DILP
Lynda Eisenberg, Director, DPZ
James Witmer, P.E., Chief Development Engineering Division, DPZ
Mark Richmond, P.E., Chief Stormwater Management Division, DPW
Christine Lowe, P.E., CFM, DPW
Jennifer Sager, County Administration
Howard County Government, Calvin Ball, County Executive

Introduced _____
Public Hearing _____
Council Action _____
Executive Action _____
Effective Date _____

# County Council of Howard County, Maryland

2026 Legislative Session

Legislative Day No. **12**

**Bill No. 61-2026**

Introduced by: The Chairperson at the request of the County Executive

Short Title: Amending Floodplain Provisions – FEMA and MEMA requirements.

Title: AN ACT, in accordance with Federal Emergency Management Agency and Maryland Emergency Management Agency requirements, updating certain floodplain provisions of the County Code; defining certain terms; setting forth the purpose, authority and findings for County floodplain requirements; clarifying the agencies who review requests for alternative compliance; providing for certain submissions and certain inspections; prohibiting certain development and certain activities in certain Special Flood Hazard Areas, including FEMA Special Flood Hazard Areas and Community Special Flood Hazard Areas; setting the basis for the establishment of Special Flood Hazard Areas; setting forth the duties and responsibilities of the Floodplain Administrator and County Departments and Agencies; providing for certain permits, applications and permit review; imposing certain subdivision and development requirements on Floodplain areas; setting forth standards and conditions and an application process for alternative compliance; updating and defining terms; allowing for certain enforcement; and generally relating to floodplain regulations in Howard County.

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Introduced and read first time _____, 2026. Ordered posted and hearing scheduled.

By order_____
Michelle Harrod, Administrator

Having been posted and notice of time & place of hearing & title of Bill having been published according to Charter, the Bill was read for a second time at a public hearing on _____, 2026.

By order _____
Michelle Harrod, Administrator

This Bill was read the third time on _____, 2026 and Passed ___, Passed with amendments _____, Failed _____.

By order _____
Michelle Harrod, Administrator

Sealed with the County Seal and presented to the County Executive for approval this ___day of _____, 2026 at ___ a.m./p.m.

By order _____
Michelle Harrod, Administrator

Approved/Vetoed by the County Executive _____, 2026

_____
Calvin Ball, County Executive

NOTE: [[text in brackets]] indicates deletions from existing law; TEXT IN SMALL CAPITALS indicates additions to existing law; ~~Strike-out~~ indicates material deleted by amendment; Underlining indicates material added by amendment

**WHEREAS**, the intent of this Bill is to adopt Howard County's updated Floodplain Management Ordinance based on the Maryland Model Floodplain Ordinance and recent Federal Emergency Management Agency (FEMA) guidance, while preserving and clarifying existing County-specific standards; and

**WHEREAS,** this update supports continued compliance with the National Flood Insurance Program (NFIP), maintains eligibility for FEMA funding, and reflects lessons learned from recent flood events; and

**WHEREAS**, the proposed Bill aligns County code with current Federal and State requirements, incorporates new locally developed floodplain data, and modernizes regulatory language to better protect life, property, and public infrastructure.

**NOW, THEREFORE,**

***Section 1. Be It Enacted*** *by the County Council of Howard County, Maryland, that the Howard County Code is amended as follows:*

*By Repealing and Reenacting:*

*Title 16, Subtitle 7*

*By Amending:*

*Section 3.101. Amendments to the International Building Code, 2024 Edition.*

*Subsection (b)(36) and Subsection (b)(78)*

*Section 16.108. Rules of construction; definitions*

*Subsection (b)(23) and Subsection (32.1)*

*Section 16.115*

*Section 16.133. Storm Drainage.*

*Subsection (d)*

*Section 16.145. Sketch plan; preliminary equivalent sketch plan.*
*Subsection (c)*

*Section 16.146. Preliminary Plan.*
*Subsection (c)*

*Section 16.157. Required information for site development plans*
*Subsection (b)*

*Section 16.1201. Definitions*
*Subsections (v) and (bb)*

*Section 16.1205. Forest Retention Policies.*
*Subsection (b)*

*Section 16.1028. Reforestation and afforestation location priorities, preferred location, and preferred methods.*
*Subsection (a)*

*Section 18.901. Definitions.*

*Section 18.905. Stormwater management design process.*
*Subsection (b).*

**Title 3. Buildings.**

**Subtitle 1. Building Code.**

**Section 3.101. Amendments to the International Building Code, 2024 Edition.**

(b) *Local Amendments.* The following amendments modify certain provisions of the adopted code.

(36) *Subsection 111.1 Change of occupancy.*

After the first sentence, insert the following:

If there is an approved site development plan and grading has occurred, the Building Official shall not issue a certificate of use and occupancy unless the permittee submits a certification by a registered land surveyor that the site grading and drainage courses are in compliance with the approved site development plan. If there is not an approved site development plan and grading has occurred, the permittee shall submit a certification by a registered land surveyor that the site grading and drainage courses are in compliance with the approved erosion and sediment control plan and grading plan. The certification shall be submitted to the County. The fine grading and soil stabilization may be deferred until the following growing season upon the posting of adequate surety equal to the cost to complete the grading and stabilization. PER TITLE 16, SUBTITLE 7, SEC. 16.702(H) SUBMISSIONS REQUIRED PRIOR TO FINAL INSPECTION, FOR DEVELOPMENT IN DESIGNATED FLOODPLAINS, THE BUILDING OFFICIAL SHALL NOT PERFORM THE FINAL INSPECTION OR ISSUE A CERTIFICATE OF USE AND OCCUPANCY UNLESS THE PERMITTEE SUBMITS AN ELEVATION CERTIFICATE AND OTHER CONSTRUCTION CERTIFICATES AS APPLICABLE: NON-CONVERSION AGREEMENT, NON-RESIDENTIAL FLOODPROOFING CERTIFICATE, ENGINEERED OPENING CERTIFICATE, AND NO-RISE CERTIFICATION.

(78) *Section 3115 Floodplain.*

Add new Section 3115 after Section 3114 as follows:

**Section 3115 Floodplain.**

**3115.1 General.** For the purpose of this Section, the [[floodplain is]] DESIGNATED FLOODPLAINS ARE delineated in title 16, subtitle 7 of the Howard County Code.

**3115.2 Within designated floodplain.**

The construction, reconstruction, modification, alteration, repair, or improvement of buildings, manufactured homes, or other structures located within a designated floodplain shall be done in accordance with the requirements set forth in this section.

**3115.2.1 New construction.** New residential or nonresidential DEVELOPMENT AND construction shall not occur within a designated floodplain.

**Exception 1:** An existing nonconforming structure located within a designated floodplain [[which is destroyed by fire or flood, or]] that sustains substantial damage may be restored to the same size and dimension and in the same location on the same lot as the [[destroyed]]SUBSTANTIALLY DAMAGED structure, provided construction begins within 12 months of the date of [[destruction]]SUBSTANTIAL DAMAGE. Construction shall comply with the elevating and floodproofing requirements of subsection 3115.4 for new construction adjacent to a floodplain. A person shall not intentionally demolish or reconstruct any nonconforming structure. This exception does not apply to manufactured homes. A manufactured home cannot be restored under any condition within a designated floodplain.

**Exception 2:** Transportation networks, utility installations, piers, open pier structures, and open decks approved by the Department of Public Works ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR. Streets, sidewalks, pathways, and utility systems in accordance with the Howard County Design Manual and all other applicable codes, ordinances, resolutions, and regulations.

**3115.2.2 Additions and enlargements.** Existing nonconforming structures located within a designated floodplain shall not be expanded or enlarged.

**3115.2.3 Modifications, alterations, and repairs.** Modifications, alterations, repairs, or improvements that cost less than 50% of the fair market value of the structure may be made to existing nonconforming structures located within a designated floodplain without floodproofing or elevating if the owner demonstrates through a Maryland State registered professional engineer that floodproofing or elevating is impractical.

**3115.3 Substantial improvements within a designated floodplain.** Substantial improvements within a designated floodplain shall meet the standards set forth in this subsection and Title 16, Subtitle 7 of the Howard County Code.

**3115.3.1. Residential.** The lowest floor, including a basement, of substantial improvements to existing nonconforming residential structures located within a designated floodplain shall be elevated to at least [[2]]TWO feet above the [[100-year]]BASE flood elevation.

**3115.3.2. Nonresidential.** The lowest floor, including a basement, of substantial improvements to existing nonconforming nonresidential structures shall be elevated to at

least [[2]]TWO above the [[100-year]]BASE flood elevation or shall be designed so that any area of the building which is lower than [[2]]TWO feet above the [[100-year]]BASE flood elevation, as determined or approved by the Department of Public Works ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR, is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of withstanding applicable hydrostatic, hydrodynamic, impact, soil, and, when applicable, hurricane and tidal wave loading conditions. The water tightness and structural capabilities shall be those described in floodproofing regulations published by the Office of the Chief of Engineers, U.S. Army, Washington, D.C., December 1995, or subsequent revisions, and Section [[16.705(c)]]16.703(D) of the Howard County Code.

**3115.4 Construction adjacent to a designated floodplain.** Where buildings are located adjacent to a designated floodplain the following subsections and Title 16, Subtitle 7 of the Howard County Code shall apply:

**3115.4.1 Residential.** In new construction of residential buildings or additions or substantial improvements to residential buildings, all floors, including those of basement and storage areas, shall be elevated at least [[2]]TWO feet above the [[100-year]]BASE flood level AND SHALL NOT BE LOCATED WITHIN FLOOD PROTECTION SETBACK AREAS.

**3115.4.2 Nonresidential.** In new construction of nonresidential buildings or additions or substantial improvements to nonresidential buildings, either:

(i) All floors (including those of basement and storage areas) shall be elevated at least [[2]]TWO feet above the [[100-year]]BASE flood level AND SHALL NOT BE LOCATED WITHIN FLOOD PROTECTION SETBACK AREAS[[,]] as determined or approved by the Department of [[Public Works]] INSPECTIONS, LICENSES, AND PERMITS ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR; or

(ii) The construction or improvement (including attendant utility or sanitary facilities) shall be designed so that any areas of the building that are lower than [[2]]TWO feet above the [[100-year]]BASE flood elevation AND/OR WITHIN FLOOD PROTECTION SETBACK AREAS, as determined or approved by the Department of [[Public Works]] INSPECTIONS, LICENSES, AND PERMITS ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR, are watertight with walls substantially impermeable to the passage of water and with structural components having the capability of withstanding

applicable hydrostatic, hydrodynamic, impact, soil, and, when applicable, hurricane and tidal wave loading conditions. Electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities associated with the buildings shall be designed or located to prevent water from entering or accumulating within the components during flood conditions. The water tightness and structural capabilities shall be those described in floodproofing regulations, published by the office of the Chief of Engineers, U.S. Army, Washington, D.C., December 1995, or subsequent revisions, and Section [[16.705(c)]]16.703(D) of the Howard County Code.

**3115.4.3. Modifications, alterations or repairs.** Modifications, alterations, repairs, or improvements that costs less than 50% of the fair market value of the structure may be made to existing nonconforming structures located adjacent to a designated floodplain WITHIN FLOOD PROTECTION SETBACK AREAS without floodproofing or elevating.

**3115.4.4. [[Variances]] ALTERNATIVE COMPLIANCE.** [[Variances]]ALTERNATIVE COMPLIANCE to the requirements set forth in this subsection may be granted by the [[Building Official]] HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING, DEPARTMENT OF PUBLIC WORKS, AND DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS in accordance with Section [[16.711]]16.706 of the Howard County Code.

**3115.5 Substantial improvements adjacent to a designated floodplain.** Substantial improvements adjacent to a designated floodplain WITHIN FLOOD PROTECTION SETBACK AREAS shall meet the standards set forth in this subsection and Title 16, Subtitle 7 of the Howard County Code.

**3115.5.1 Residential.** The lowest floor, including a basement, of substantial improvements to existing nonconforming residential structures located adjacent to a designated floodplain WITHIN FLOOD PROTECTION SETBACK AREAS shall be elevated to at least [[2]]TWO feet above the [[100-year]]BASE flood elevation.

**3115.5.2 Nonresidential.** The lowest floor, including a basement, of substantial improvements to existing nonconforming nonresidential structures WITHIN FLOOD PROTECTION SETBACK AREAS AND ALL ELECTRICAL, HEATING, VENTILATION, PLUMBING, AIR-CONDITIONING EQUIPMENT, AND OTHER SERVICE FACILITIES ASSOCIATED WITH THE BUILDINGS SHALL BE [[located adjacent to a designated floodplain shall be]] elevated to at

least [[2]]TWO feet above the [[100-year]]BASE flood elevation or shall be designed so that any area of the building which is lower than [[2]]TWO feet above the [[100-year]]BASE flood elevation, as determined or approved by the Department of [[Public Works]] INSPECTIONS, LICENSES, AND PERMITS ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR, is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of withstanding applicable hydrostatic, hydrodynamic impact, soil, and, when applicable, hurricane and tidal wave loading conditions. Electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities associated with the buildings shall be designed or located so as to prevent water from entering or accumulating within the components during conditions of flooding. The water tightness and structural capabilities shall be those described in floodproofing regulations published by the Office of the Chief of Engineers, U.S. Army, Washington, D.C., December 1995, or subsequent revisions, and Section [[16.705(c)]]16.703(D) of the Howard County Code.

**3115.6 Verification.** For the purpose of verifying compliance with Section 3115.4 for construction adjacent to a designated floodplain, the following shall apply:

(i) When floodproofing by means other than elevating, a document stating that the proposed construction has been adequately designed to withstand the loading conditions stated in subsection 3115.4.2(ii) shall be certified by a professional engineer or architect currently registered in Maryland. This document shall be required prior to issuance of a building permit.

(ii) When floodproofing by elevating is used, the owner shall agree, in writing, to provide a FEMA elevation certificate form 086-0-33, completed by a professional engineer or professional land surveyor currently registered in Maryland, certifying that the as-built lowest floor of the structure is elevated at least [[2]]TWO feet above the [[100-year floodplain]]BASE FLOOD elevation. The agreement shall be made prior to the issuance of the building permit and the completed certification shall be submitted prior to foundation approval by the Building Official.

(iii) Fair market value of a structure shall be established by a recent (within 6 months) formal appraisal from a qualified appraiser. Fair market value shall not include land value.

(iv) Cost to repair or improve a structure shall be established by a recent (within 6 months) written estimate from a licensed contractor and shall include the complete cost of repairs or improvements to the point of use or occupancy.

**3115.7 Definitions.** Notwithstanding Chapter 2 of the International Building Code, the [[following]] definitions SET FORTH IN SECTION 16.701 OF THIS CODE shall apply to Section 3115.0, Floodplain, of this Code: THE FOLLOWING WORDS OR PHRASES ARE DEFINED IN SECTION 16.701 OF THIS CODE.

**Accessory structure.** [[A detached structure on the same parcel or property as the principal structure that has a use that is incidental to the principal structure including, but not limited to, a shed or detached garage.]]

**Adjacent to a floodplain.** [[Sharing a common border with a floodplain.]]

**AGREEMENT TO SUBMIT AN ELEVATION CERTIFICATE.**

**BASE BUILDING.**

**BASE FLOOD.**

**BASE FLOOD ELEVATION (BFE).**

**Basement.** [[An enclosed area that is below grade on all sides.]]

**BUILDING CODES.**

**CRITICAL AND ESSENTIAL FACILITIES.**

**DECLARATION OF LAND RESTRICTION (NON-CONVERSION AGREEMENT).**

**DESIGN MANUAL.**

**DEVELOPMENT.**

**ELEVATION CERTIFICATE.**

**ENCLOSURE BELOW THE LOWEST FLOOR.**

**ENGINEERED OPENING CERTIFICATE.**

**FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA).**

**FLOOD OR FLOODING.**

**FLOOD DAMAGE-RESISTANT MATERIALS.**

**FLOOD INSURANCE RATE MAP (FIRM)FLOOD OPENING.**

**FLOOD PROTECTION ELEVATION.**

**FLOOD PROTECTION SETBACK.**

**FLOOD ZONE.**

**Floodplain.** [[Shall be as delineated in title 16, subtitle 7 of the Howard County Code.]]

**Floodproofing OR FLOODPROOFED.** [[Any combination of additions, changes, or adjustments to a structure which reduce or eliminate flood damage to real estate or improved real property, water or sanitary facilities, or structures and their contents, such that the buildings or structures are 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.]]

**FLOODPROOFING CERTIFICATE.**

**FREE-OF-OBSTRUCTION.**

**FUNCTIONALLY DEPENDENT USE.**

**HIGHEST ADJACENT GRADE.**

**Historic structure.** [[A building listed on the national register of historic places, a state inventory of historic places, or an inventory of historic structures adopted by resolution of the County Council. A historic structure also includes a structure that is certified or preliminarily determined by the United States 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.]]

**LICENSED**

**Lowest floor.** [[The lowest floor or the lowest enclosed area, including a basement. Lowest floor does not include an unfinished or flood resistant enclosure used solely for parking vehicles, building access, or storage in an area other than a basement area. The enclosure shall not be built so as to render the structure in violation of the applicable non-elevation design requirements of subsections 3115.4 and 3115.6 of this Code.]]

**Manufactured home.** [[A manufactured home shall have the meaning set forth in Title 16, Subtitle 7 of the Howard County Code. ]]

**MARKET VALUE.**

**MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE).**

**MIXED-USE STRUCTURE.**

**NATIONAL FLOOD INSURANCE PROGRAM (NFIP).**

**New construction.[[** Structures, including additions and improvements, and the placement of manufactured homes, for which the start of construction commenced on or

after 3/15/1977, the initial effective date of the Howard County Flood Insurance Rate Map, including any subsequent improvements, alterations, modifications, and additions to such structures.

**The repair or replacement of a manufactured home because of substantial damage is considered to be new construction and is prohibited in accordance with Section 3115.2.1 of this Code.]]**

**NO-RISE CERTIFICATION.**

**SPECIAL FLOOD HAZARD AREA (SFHA).**

**START OF CONSTRUCTION.**

**Structure.** **[[**For purposes of this Subsection 3115 to this Code, shall have the meaning set forth in Title 16, Subtitle 7 of the Howard County Code.]]

**Substantial damage.** [[Damage of any origin sustained by a structure where the cost of returning the structure to its condition prior to damage would equal or exceed 50% of the structure's fair market value before the damage occurred.]]

**Substantial improvement.** [[The repair, reconstruction, or improvement of a building or structure, the cost of which is equal to or greater than 50% of the fair market value of the building or structure prior to damage, improvement, or repair. For the purpose of this definition, "substantial improvement" occurs when the first alteration of a wall, ceiling, floor, or other structural part of the building begins, whether or not that alteration affects the external dimensions of the building or structure. The term does not include any project for improving a building or structure to comply with existing State or local health, sanitary, or housing code requirements which are necessary to assure safe living conditions. This term does not include an alteration of a historic structure provided that the alteration will not preclude the structure's continued designation as a historic structure. ]]

**TEMPORARY STRUCTURE.**

**Variance.** [[The grant of relief from a term of this subtitle.]]

**VIOLATION.**

**3115.8 ALTERNATIVE COMPLIANCE, Variances and waivers.** Except as provided in Section 3115.4 of this Code, [[a]] AN ALTERNATIVE COMPLIANCE, variance or waiver of

this section is not allowed. The [[building official]]HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING, DEPARTMENT OF PUBLIC WORKS, AND DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS shall consider [[a variance]] AN ALTERNATIVE COMPLIANCE in accordance with the provisions of Section [[16.711]]16.706 of the Howard County Code.

**3115.9 Other agencies.** A permit issued by the Building Official under this Subtitle is not valid until all necessary permits for the development are obtained. Receipt of [[federal]]FEDERAL or State permits do not exempt a development from the provisions of this Subtitle.

**3115.10 INSPECTIONS.** ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR, THE DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS SHALL MAKE PERIODIC INSPECTIONS OF DEVELOPMENT PERMITTED IN SPECIAL FLOOD HAZARD AREAS, AT APPROPRIATE TIMES THROUGHOUT THE PERIOD OF CONSTRUCTION IN ORDER TO MONITOR COMPLIANCE. SUCH INSPECTIONS MAY INCLUDE:

(I) STAKE-OUT INSPECTION, TO DETERMINE LOCATION ON THE SITE RELATIVE TO THE FLOOD HAZARD AREA AND DESIGNATED FLOODWAY.

(II) FOUNDATION INSPECTION, UPON PLACEMENT OF THE LOWEST FLOOR AND PRIOR TO FURTHER VERTICAL CONSTRUCTION, TO COLLECT INFORMATION OR CERTIFICATION OF THE ELEVATION OF THE LOWEST FLOOR.

(III) INSPECTION OF ENCLOSURES BELOW THE LOWEST FLOOR, INCLUDING CRAWL/UNDERFLOOR SPACES, TO DETERMINE COMPLIANCE WITH APPLICABLE PROVISIONS.

(IV) UTILITY INSPECTION, UPON INSTALLATION OF SPECIFIED EQUIPMENT AND APPLIANCES, TO DETERMINE APPROPRIATE LOCATION WITH RESPECT TO THE BASE FLOOD ELEVATION.

(V) FINAL INSPECTION PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.

**3115.11 SUBMISSIONS REQUIRED PRIOR TO FINAL INSPECTION.** PURSUANT TO THE AGREEMENT TO SUBMIT AN ELEVATION CERTIFICATE SUBMITTED WITH THE APPLICATION AS REQUIRED IN SECTION 16.702(E)(1)(IX)(A), THE PERMITTEE SHALL HAVE AN ELEVATION

CERTIFICATE PREPARED AND SUBMITTED PRIOR TO FINAL INSPECTION AND ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR ELEVATED STRUCTURES AND MANUFACTURED HOMES, INCLUDING NEW STRUCTURES AND MANUFACTURED HOMES, SUBSTANTIALLY-IMPROVED STRUCTURES AND MANUFACTURED HOMES, AND ADDITIONS TO STRUCTURES AND MANUFACTURED HOMES.

**Title 16. Planning, Zoning and Subdivisions and Land Development Regulations.**

**Subtitle 1. Subdivisions and Land Development Regulations.**

**Article I. General.**

**Section 16.108. Rules of construction; definitions.**

(b) *Definitions.* As used in these regulations, the following terms shall be defined as follows:

(23) *Floodplain* [[means that area which would be inundated by stormwater runoff equivalent to that which would occur from a rainfall of 100-year frequency, assuming total development of the watershed as shown in the general plan of the County. Floodplain determination shall be in accordance with the Design Manual]]SHALL HAVE THE MEANING SET FORTH IN SECTION 16.701 OF THIS CODE.

(32.1) *Net area* means the gross area minus all steep slopes existing at the time of subdivision and the area within the 100-year floodplain INCLUDING ANY SPECIAL FLOOD HAZARD AREA WHICH MAY CONSIST OF FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS.

**Title 16. Subdivision and Land Development Regulations.**

**Subtitle 1. Subdivisions and Land Development Regulations.**

**Article II. Design Standards and Requirements.**

**Section 16.115. Floodplain preservation.**

(a) *Development Restricted in [[100-Year Floodplain (Base Flood Elevation)]]SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS.* Development within the boundaries of the [[100-year floodplain (base

flood elevation)]] SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, shall be pursuant to title 16, subtitle 7 of this Code. Most land within [[base flood elevation]] SPECIAL FLOOD HAZARD AREAS, FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, is considered a protection area (i.e., a stream valley or valuable ecological area or scenic resource) [[which]], WHICH is shown:

(1) In the General Plan of Howard County for conservation status; or

(2) In the master plan of parks for acquisition as a conservation area; or

(3) In the capital improvement program for acquisition as a conservation area.

(b) *Floodplain Protection.* In subdivisions and site development plans containing [[a 100-year floodplain (base flood elevation)]] SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, the floodplain land shall be protected in accordance with one of the following alternatives. Prior to the recordation of the final plat and final acceptance of the construction drawings, a deed description of the floodplain will be provided when requested.

(1) *Deed the floodplain land to the County.* Developers are encouraged to dedicate and deed the land in [[the 100-year floodplain (base flood elevation)]]SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, to Howard County as permanent open space.

(2) *Grant a floodplain easement to Howard County.* If the floodplain is not dedicated to the County, the developer shall grant the County right of entry through a perpetual easement, and shall:

(i) Dedicate and deed the land area within the [[100-year floodplain (base flood elevation)]] SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, in fee simple to a legally constituted property owners association. The property owners association may use the area in any manner consistent with the maintenance and preservation of the area as a floodplain; or

(ii) Include the [[100-year floodplain (base flood elevation)]] SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, within the boundary of the lots in accordance with section

16.120 of this subtitle. The property owner whose lot includes floodplain area may use the area in any manner consistent with the maintenance and preservation of the area as a floodplain.

(c) *Prohibitions on Use of Floodplain Land:*

(1) A person shall not store materials of any kind in a [[floodplain]] SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, either temporarily or permanently. Accordingly, building materials and other debris shall not be stored or discarded in [[floodplains]] SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, UNLESS APPROVED AS A NECESSARY DISTURBANCE UNDER PARAGRAPH (3) OF THIS SUBSECTION .

(2) No clearing, excavating, filling, altering drainage, or impervious paving, may occur on land located in [[a floodplain]] SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, unless [[required or authorized by the Department of Planning and Zoning upon the advice of]] APPROVED AS A NECESSARY DISTURBANCE UNDER PARAGRAPH (3) OF THIS SUBSECTION OR AUTHORIZED THROUGH AN ALTERNATIVE COMPLIANCE PER SECTION 16.104 FOLLOWING THE CRITERIA AS DESCRIBED IN 16.706, APPROVED BY THE DEPARTMENT OF PLANNING AND ZONING, the Department of Inspections, Licenses and Permits, OFFICE OF COMMUNITY SUSTAINABILITY AND the Department of Public Works[[, the Department of Recreation and Parks,]]UPON THE ADVICE OF the Soil Conservation District, or the Maryland Department of the Environment. Any proposed construction of a structure located within [[a floodplain]] SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, shall be subject to the requirements of the Howard County Building Code AND TITLE 16, SUBTITLE 7 OF THE HOWARD COUNTY CODE.

(3) THE ACTIVITIES PROHIBITED BY PARAGRAPHS (1) AND (2) ARE ONLY ALLOWED IN SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, IF THE DEPARTMENT OF PLANNING AND ZONING IN CONSULTATION WITH THE DEPARTMENT OF INSPECTIONS, LICENSES AND

PERMITS AND THE DEPARTMENT OF PUBLIC WORKS DETERMINES BASED ON A DETAILED JUSTIFICATION PROVIDED BY THE DEVELOPER THAT:

(I) IT IS NECESSARY FOR CONSTRUCTION OF PUBLIC OR PRIVATE ROADS, DRIVEWAYS, UTILITIES, TRAILS, PATHWAYS, OR STORMWATER MANAGEMENT FACILITIES WHICH ARE ESSENTIAL FOR REASONABLE DEVELOPMENT OF THE PROPERTY;

(II) THE DESIGN MINIMIZES DISTURBANCE;

(III) THERE IS NO OTHER REASONABLE ALTERNATIVE; AND

(IV) THE COST OF AN ALTERNATIVE IMPROVEMENT SHALL NOT BE A FACTOR IN DECIDING WHETHER THE CRITERIA IN SUBJECT SUBSECTION (1) ABOVE CAN BE MET.

(d) *Delineation on Final Plats and Site Development Plans.* [[Floodplain limits]] SPECIAL FLOOD HAZARD AREA LIMITS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS LIMITS, shall be clearly defined, except for agricultural preservation subdivisions and rural cluster subdivisions where the [[floodplain is]] SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, ARE obviously not critical to the proposed development as defined by the Design Manual nor critical to calculation of forest conservation obligations. Final plats and site development plans shall show the following information:

(1) [[Floodplain]] SPECIAL FLOOD HAZARD AREA, INCLUDING FEMA SPECIAL FLOOD HAZARD AREA AND COMMUNITY SPECIAL FLOOD HAZARD AREA, elevations at every bearing change to be designated along floodplain limits. Elevation shall be designated at not greater than 200-foot horizontal intervals.

(2) Bearings and distances or coordinated values along each line.

(3) The area shall be labeled as "100-year floodplain, drainage, and utility easement".

**Title 16. Subdivision and Land Development Regulations.**

**Subtitle 1. Subdivisions and Land Development Regulations.**

**Article III. Required Improvements.**

**Section 16.133. Storm drainage.**

(d) *Restriction on Construction in* 100-year floodplain INCLUDING ANY SPECIAL FLOOD HAZARD AREA, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS. Construction on land within the 100-year floodplain INCLUDING ANY SPECIAL FLOOD HAZARD AREA, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS shall be subject to the restrictions of section 16.115, "Floodplain Preservation."

**Title 16. Planning, Zoning and Subdivisions and Land Development Regulations.**

**Subtitle 1. Subdivisions and Land Development Regulations.**

**Article IV. Procedures for filing and processing subdivision applications.**

**Section 16.145. Sketch plan; preliminary equivalent sketch plan.**

(c) *Required Information.* A checklist specifying the required information format for sketch plan submission is to be provided by the Department of Planning and Zoning. For all types of subdivisions, except for apartments, the sketch plan, drawn on 24-inch by 36-inch sheets to scale one inch equals 200 feet, or as approved by the Department of Planning and Zoning shall be submitted on a topographic map, accompanied by an application form, checklist, and fee and the following items. Apartment developments shall be drawn at a scale of one inch equals 100 feet or one inch equals 50 feet and shall also provide the information required in paragraph (16) of this subsection. The Department of Planning and Zoning will provide a separate submission checklist for a preliminary equivalent sketch plan that incorporates appropriate requirements from the checklists for both sketch and preliminary plans.

(1) Name and address of developer, owner, engineer, and/or surveyor.

(2) Adjoining property owners, deed references and recorded subdivision names, recording references and adjoining property structures within 200 feet of the proposed property line. Provide information regarding any adjoining undeveloped parcel that is landlocked or has insufficient frontage which may need access through the proposed subdivision.

(3) Development data, including land characteristics, availability of public utilities, existing and proposed individual wells, individual septic systems, and shared sewage disposal facilities, existing and proposed recreation, park and conservation areas, existing and

proposed street systems, scenic roads, existing and proposed stormwater management systems, preliminary lot layout, approximate 100-year floodplain INCLUDING ANY SPECIAL FLOOD HAZARD AREA, WHICH MAY CONSIST OF FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, limits, wetlands and streambanks, wetland and stream buffers or steep slopes, if any.

(4) Vicinity map.

(5) North arrow.

(6) The title block shall be in the lower right hand corner and include:

(i) Proposed subdivision name which shall not be a duplicate of any other subdivision or development name in the Baltimore Metropolitan Area;

(ii) Scale of plan;

(iii)Location by election districts, County, and State;

(iv)Tax map, parcel number; and

(v) Date.

(7) List of street names which, if approved by the Department of Planning and Zoning, will be reserved for that subdivision.

(8) Existing zoning, number of acres and proposed lots.

(9) Soils map at the scale of the subdivision plan with the boundary plotted and the mapping symbols indicated within the mapping boundaries.

(10) Forest stand delineation as described in subtitle 12 of this title.

(11) Whenever the sketch plan covers only a part of an applicant's contiguous holdings, the applicant shall submit, at the same scale as above, a sketch of the proposed subdivision area, with its proposed street system and an indication of the probable future street and drainage system of the remaining portion of the tract.

(12) The location and approximate age of any burial grounds or existing structures and whether structures are to be retained or removed. A cemetery boundary documentation and accommodation plan shall be submitted, if applicable pursuant to the requirements of subtitle 13, "Cemetery Preservation," of this title.

(13) The phasing schedule, if the subdivision is to be phased.

(14) A traffic study pursuant to the requirements of subtitle 11, "Adequate Public Facilities," of this title.

(15) Additional information which may be required by the review committee to evaluate the plan.

(16) For apartment developments, the sketch plan shall be submitted for the entire acreage of contiguous ownership in accordance with paragraphs (1) through (15) of this subsection and shall include the following additional items:

(i) Approximate location of each building, setbacks from all streets (public or private), property lines, and distances between buildings.

(ii) Number of apartment units in each building.

(iii) Number of parking spaces in each off-street parking area, and total number of parking spaces.

(iv) Interior road or street access, whether public or private, and total area of each.

(17) For development of a site abutting a scenic road, the following are required:

(i) Location of views and viewsheds as seen along the entire frontage of the scenic road, indicated on the plan.

(ii) Photographs, perspective sketches or elevations of the property as necessary to adequately portray the visual character of the scenic road right-of-way and the site as viewed from the scenic road.

(iii) Perspective sketches, elevations or cross-sections of the proposed development as viewed from the scenic road, showing the relationship of development to the scenic character of the landscape as viewed from the road.

(18) Location of overhead utility line maintenance easements that would conflict with proposed landscaping or forest buffers, if any.

(19) For cluster and density receiving subdivisions in the RC or RR zoning districts, a written explanation of how the proposed design meets the objectives set forth in sections 104.F.2, 105.F.2, or 106.F.3 of the zoning regulations.

(20) For residential developments required to hold presubmission community meetings in accordance with section 16.128 of this subtitle, a certification that meeting notices were mailed and a summary of the comments made at the meeting.

(21) For residential development projects requesting green neighborhood allocations, the preliminary equivalent sketch plan shall demonstrate how the project will comply with the green neighborhood site portion of the green neighborhood checklist.

(22) A developer who is proposing the redevelopment of a golf course shall comply with section 16.129 of this subtitle, and, for purposes of this section, the terms "redevelopment" and "golf course" shall have the meaning set forth in section 16.129 of this subtitle.

**Section 16.146. Preliminary plan.**

(c) *Required Information for Preliminary Plan.* A checklist specifying the format for preliminary plan submission shall be provided by the Department of Planning and Zoning. The following information shall be required for all preliminary plans:

(1) The preliminary plan shall be submitted at a scale of one inch equals 100 feet, one inch equals 50 feet or as approved by the Department of Planning and Zoning and shall be clear and legible. The size of a sheet shall be 24 inches by 36 inches. When more than one sheet is required, an index sheet of the same size shall be submitted showing the entire subdivision drawn to scale.

(2) Vicinity map indicating the location of the property with respect to surrounding property and streets to an accurate scale.

(3) The names, liber, and folio of all adjoining unsubdivided property. If a recorded subdivision adjoins the land to be developed, the subdivision name, lot number, block number, and recording number shall be indicated with dashed lines.

(4) Title block shall be in the lower right-hand corner and include:

(i) Proposed subdivision name, which shall not be a duplicate of any subdivision or development name in the Baltimore Metropolitan Area;

(ii) Section number;

(iii)Scale of plan;

(iv)Location by election district, County, and State;

(v) Date; and

(vi)Tax map and parcel number.

(5) Name and address of the owner and/or developer and registered engineer or other professional person licensed in the State of Maryland responsible for the preparation of the plan; signature, and seal of engineer, or other professional person qualified by law

and licensed in the State of Maryland to sign and seal the preliminary plan and corporation (if corporate developer) is required.

(6) North arrow.

(7) Boundary of proposed subdivision clearly indicated by a heavy line with bearings and distances.

(8) All existing pertinent features, either natural or manmade, on-site or within 200 feet of the project property line that may influence the design of the subdivision, including streambanks, wetlands, floodplains, required buffers, soil characteristics, forests or important trees, utility rights-of-way including maintenance easements, individual well and septic systems and shared sewage disposal systems, or existing buildings, structures, and burial grounds. Indicate the approximate age of any structure and whether it is to be retained or removed. A cemetery boundary documentation and accommodation plan shall be submitted, if applicable pursuant to the requirements of subtitle 13, "Cemetery Preservation," of this title.

(9) Existing topography at two-foot contour intervals. Contour lines shall be indicated 200 feet beyond subdivision boundary.

(10) Location, widths, and names of all streets or alleys on or adjoining the subdivision. Existing easements and streets which have been preliminarily approved or recorded but remain unimproved shall be indicated with dashed lines.

(11) The layout of all proposed streets, including widths of rights-of-way and pavements, widths and locations of sidewalks or paths, and general location of street trees.

(12) Location of existing and proposed utilities on or adjoining the tract, indicating approximate pipe sizes and directions of slopes. Include electric and telephone poles, street lights, and fire hydrants. If no hydrants, indicate provisions for fire protection.

(13) The layout of all proposed and existing lots with appropriate dimensions and minimum area in square feet (acres if lot size is greater than 60,000 square feet), section number and area number, and required front, side, and rear setbacks except in the New Town district.

(14) All subdivisions shall be tied to the Maryland Coordinate System if control points and information are within one mile of proposed subdivision. Coordinate values needed on all

points on the boundary of the preliminary plan shall be presented in tabular form. Original monument references may be obtained from the Department of Public Works.

(15) Lot numbers in numerical order throughout the entire subdivision for single-family lots. Apartment, condominium, commercial, industrial and bulk parcels will be designated by letters in alphabetical order.

(16) The approximate location, dimensions and area of all property proposed to be reserved or temporarily reserved for public use, or reserved for the use of all property owners in the subdivision and the location, dimensions, and purposes of any proposed easements.

(17) Zoning district classification governing the subject tract and adjoining properties.

(18) Proposed drainage and stormwater management systems including the type of structures, drainage easements, proposed changes in topography, the 100-year floodplain INCLUDING ANY SPECIAL FLOOD HAZARD AREA, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, and any deviations from standards. Justification shall be provided for rejecting preferred stormwater management measures in favor of less preferred methods unless predetermined by the Department of Planning and Zoning, after consultation with the Director of Public Works, and in accordance with the Design Manual.

(19) If a private sewage or water supply system or shared sewage disposal system is to be used, location and results of soil percolation tests and locations of water wells are to be indicated in accordance with the specifications of the Maryland State Department of Environment. Signature block for County Health officer should be provided on the percolation plan or the plan sheets showing required well and septic information. No other sheets require signature by the Health Officer.

(20) Total number of lots, area of lots and parcels, area of public roadway and open space dedications, and total area of subdivision should be listed.

(21) Locations and extent of proposed erosion and sediment control measures, as required, by the Howard County Soil Conservation District shall be shown.

(22) Soil map at the scale of the subdivision plan, with the boundary plotted and the mapping symbols indicated within the mapping boundaries.

(23) Preliminary forest conservation plan as described in subtitle 12 of this title.

(24) The following information shall accompany the submission of the preliminary plan in accordance with requirements contained in the design manual:

(i) Tentative profiles of each street center line and typical cross section of each type of street.

(ii) Preliminary drainage area map and preliminary storm drainage study for the entire area covered by the preliminary subdivision plan. The storm drainage study shall include an evaluation of drainage structures and/or drainage systems, both upstream and downstream, affected by the drainage from the area covered by the preliminary plan as required by section 16.133 of this subtitle.

(iii) Preliminary grading plan showing limits of disturbance, grading for subdivision improvements and mass grading, if proposed. Schematic grading, for residential lots smaller than 20,000 square feet in area, shall be shown to demonstrate that units can be accommodated without adverse drainage impacts or disturbance of floodplains, wetland and stream buffers, or proposed forest conservation easements.

(25) A traffic study shall accompany all preliminary plans for subdivisions which are required to pass the test for adequate road facilities pursuant to subtitle 11, "Adequate Public Facilities," of this title and have not yet been tested or have to be tested because of failure to meet a milestone.

(26) Preliminary landscape plan as described in subsection 16.124(a)(3)(i) of this title.

(27) In addition, preliminary plans for apartments shall include:

(i) Approximate location of each building, setbacks from all streets (public or private), property lines, and distances between buildings.

(ii) Number of apartment units in each building.

(iii) Number of parking spaces in each off-street parking area, and total number of parking spaces.

(iv) Interior road or street access, whether public or private, and total area of each.

(28) A developer who is proposing the redevelopment of a golf course shall comply with section 16.129 of this subtitle, and, for purposes of this section, the terms "redevelopment" and "golf course" shall have the meaning set forth in section 16.129 of this subtitle.

**Title 16. Planning, Zoning and Subdivisions and Land Development Regulations.**

**Subtitle 1. Subdivisions and Land Development Regulations.**

**Article V. Procedures for filing and processing site development plan applications.**

**Section 16.157. Required information for site development plans.**

(b) *Information about Existing Conditions:*

(1) Vicinity map showing property location in relation to access roads with scale and north arrow;

(2) Existing topography two-foot contour intervals for proposed parcel and adjacent properties;

(3) Coordinate grids and ticks;

(4) One-hundred-year floodplains INCLUDING ANY SPECIAL FLOOD HAZARD AREA, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS;

(5) Wooded areas and major trees, including a forest stand delineation, if required;

(6) Buildings and structures, including sewage pretreatment structures;

(7) Utilities and fire hydrants;

(8) Existing roads and/or rights-of-way and other paving, scenic roads, trails, and proposed State or County rights-of-way;

(9) Existing and proposed County parks, schools, or other public facilities;

(10) Easements of record with recording reference;

(11) Ponds, wetlands, wetlands buffers, streams and stream buffers;

(12) Howard County survey control stations shall be plotted accurately, identifying any that require relocation;

(13) Accurately plotted lot or parcel showing property lines with bearings and distances;

(14) North arrow;

(15) Identification and zoning of adjacent properties;

(16) The location and approximate age of any existing structure and whether the structure is to be retained or removed;

(17) The boundaries of burial grounds with a certification by the developer that the burial grounds have not and will not be disturbed except as permitted by law, or a certification that there are no burial grounds on the property being developed; a cemetery boundary documentation and accommodation plan shall be submitted, if applicable pursuant to the requirements of subtitle 13, "Cemetery Preservation," of this title;

(18) Legend; and

(19) General information, to include:

(i) Existing zoning;

(ii) Subdivision or final development plan reference, if appropriate;

(iii)Total area of submission;

(iv)Approved street names and numbers; and

(v) Other specific information as may be required by the zoning ordinance, including structure and use setbacks.

(20) A developer who is proposing the redevelopment of a golf course shall comply with section 16.129 of this subtitle, and, for purposes of this section, the terms *redevelopment* and *golf course* shall have the meaning set forth in section 16.129 of this subtitle.

## Title 16. Planning, Zoning and Subdivisions and Land Development Regulations.

### SUBTITLE 7. FLOODPLAIN.

**SECTION 16.700. FINDINGS, STATUTORY AUTHORITY; PURPOSE; APPLICATION AREAS; BASIS FOR ESTABLISHMENT; ABROGATION AND GREATER RESTRICTIONS; INTERPRETATION; LIABILITY DISCLAIMER.**

(A) *FINDINGS.* THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) HAS IDENTIFIED SPECIAL FLOOD HAZARD AREAS WITHIN THE BOUNDARIES OF HOWARD COUNTY, MARYLAND. SPECIAL FLOOD HAZARD AREAS ARE SUBJECT TO PERIODIC INUNDATION WHICH MAY RESULT IN LOSS OF LIFE AND PROPERTY, HEALTH AND SAFETY HAZARDS, DISRUPTION OF COMMERCE AND GOVERNMENTAL SERVICES, EXTRAORDINARY PUBLIC EXPENDITURES FOR FLOOD PROTECTION AND RELIEF, AND IMPAIRMENT OF THE TAX BASE, ALL OF WHICH ADVERSELY AFFECT THE PUBLIC HEALTH, SAFETY AND GENERAL WELFARE. *STRUCTURES* THAT ARE INADEQUATELY

ELEVATED, IMPROPERLY *FLOODPROOFED*, OR OTHERWISE UNPROTECTED FROM FLOOD DAMAGE ALSO CONTRIBUTE TO FLOOD LOSSES.

HOWARD COUNTY, MARYLAND BY RESOLUTION, AGREED TO MEET THE REQUIREMENTS OF THE NATIONAL FLOOD INSURANCE PROGRAM (NFIP) AND WAS ACCEPTED FOR PARTICIPATION IN THE PROGRAM ON MARCH 15, 1977. AS OF THAT DATE, WHICH IS ALSO THE INITIAL EFFECTIVE DATE OF THE HOWARD COUNTY, MARYLAND, FLOOD INSURANCE RATE MAP, ALL DEVELOPMENT AND NEW CONSTRUCTION AS DEFINED HEREIN, ARE TO BE COMPLIANT WITH THESE REGULATIONS.

(B) *STATUTORY AUTHORITY.* THE MARYLAND GENERAL ASSEMBLY, IN TITLE 4 OF THE LAND USE ARTICLE OF THE ANNOTATED CODE OF MARYLAND, HAS ESTABLISHED AS POLICY OF THE STATE THAT THE ORDERLY DEVELOPMENT AND USE OF LAND AND STRUCTURES REQUIRES COMPREHENSIVE REGULATION THROUGH THE IMPLEMENTATION OF PLANNING AND ZONING CONTROL, AND THAT PLANNING AND ZONING CONTROLS SHALL BE IMPLEMENTED BY LOCAL GOVERNMENT IN ORDER TO, AMONG OTHER PURPOSES, SECURE THE PUBLIC SAFETY, PROMOTE HEALTH AND GENERAL WELFARE, AND PROMOTE THE CONSERVATION OF NATURAL RESOURCES. THEREFORE, HOWARD COUNTY ADOPTS FLOODPLAIN MANAGEMENT REGULATIONS AS CONTAINED IN THIS SUBTITLE; TITLE 16, SUBTITLE 1 OF THIS CODE; AND THE HOWARD COUNTY BUILDING CODE. IN THIS SUBTITLE, REFERENCES TO "THESE REGULATIONS" SHALL MEAN THIS SUBTITLE; TITLE 16, SUBTITLE 1 OF THIS CODE AND THE HOWARD COUNTY BUILDING CODE.

(C) *PURPOSE.* IT IS THE PURPOSE OF THESE REGULATIONS IS TO PROMOTE THE PUBLIC HEALTH, SAFETY AND GENERAL WELFARE, AND TO:

(1) PROTECT HUMAN LIFE, HEALTH AND WELFARE;

(2) ENCOURAGE THE UTILIZATION OF APPROPRIATE CONSTRUCTION PRACTICES IN ORDER TO PREVENT OR MINIMIZE FLOOD DAMAGE IN THE FUTURE;

(3) MINIMIZE FLOODING OF WATER SUPPLY AND SANITARY SEWAGE DISPOSAL SYSTEMS;

(4) MAINTAIN NATURAL DRAINAGE;

(5) REDUCE FINANCIAL BURDENS IMPOSED ON THE COMMUNITY, ITS GOVERNMENTAL UNITS AND ITS RESIDENTS, BY DISCOURAGING UNWISE DESIGN AND CONSTRUCTION OF DEVELOPMENT IN AREAS SUBJECT TO FLOODING;

(6) MINIMIZE THE NEED FOR RESCUE AND RELIEF EFFORTS ASSOCIATED WITH FLOODING AND GENERALLY UNDERTAKEN AT THE EXPENSE OF THE GENERAL PUBLIC;

(7) MINIMIZE PROLONGED BUSINESS INTERRUPTIONS;

(8) MINIMIZE DAMAGE TO PUBLIC FACILITIES AND OTHER UTILITIES SUCH AS WATER AND GAS MAINS, ELECTRIC, TELEPHONE AND SEWER LINES, STREETS AND BRIDGES;

(9) REINFORCE THAT THOSE WHO BUILD IN AND OCCUPY SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, SHOULD ASSUME RESPONSIBILITY FOR THEIR ACTIONS;

(10) MINIMIZE THE IMPACT OF DEVELOPMENT ON ADJACENT PROPERTIES WITHIN AND NEAR FLOOD-PRONE AREAS;

(11) PROVIDE THAT THE FLOOD STORAGE AND CONVEYANCE FUNCTIONS OF FLOODPLAINS ARE MAINTAINED;

(12) MINIMIZE THE IMPACT OF DEVELOPMENT ON THE NATURAL AND BENEFICIAL FUNCTIONS OF FLOODPLAINS;

(13) PREVENT FLOODPLAIN USES THAT ARE EITHER HAZARDOUS OR ENVIRONMENTALLY INCOMPATIBLE; AND

(14) MEET COMMUNITY PARTICIPATION REQUIREMENTS OF THE NATIONAL FLOOD INSURANCE PROGRAM AS SET FORTH IN THE CODE OF FEDERAL REGULATIONS (CFR) AT 44 C.F.R. SECTION 59.22.

(D) *AREAS TO WHICH THESE REGULATIONS APPLY.*

THESE REGULATIONS SHALL APPLY TO ALL SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, WITHIN THE JURISDICTION OF HOWARD COUNTY, MARYLAND, AND IDENTIFIED IN SECTION 16.700(E).

(E) *BASIS FOR ESTABLISHING SPECIAL FLOOD HAZARD AREAS AND BFES.*

(1) FOR THE PURPOSES OF THESE REGULATIONS, THE MINIMUM BASIS FOR ESTABLISHING SPECIAL FLOOD HAZARD AREAS AND BASE FLOOD ELEVATIONS IS:

(I) THE FLOOD INSURANCE STUDY FOR HOWARD COUNTY, MARYLAND, AND INCORPORATED AREAS DATED NOVEMBER 6, 2013, OR THE MOST RECENT REVISION THEREOF, AND THE ACCOMPANYING FLOOD INSURANCE RATE MAP(S) AND DIGITAL DATA, AND ALL SUBSEQUENT AMENDMENTS AND REVISIONS TO THE FIRMS.

(II) THE HOWARD COUNTY FLOODPLAINS DEVELOPED BY DETAILED STUDY AND BASE LEVEL ENGINEERING (BLE) METHODS IN FLOOD MODELING AND MAPPING: LITTLE PATUXENT RIVER AND PATAPSCO RIVER LOWER NORTH BRANCH WATERSHEDS, HOWARD COUNTY, MD, DATED JANUARY 2026, AND THE ACCOMPANYING MAPPING, DIGITAL DATA, AND ALL SUBSEQUENT AMENDMENTS AND REVISIONS, INCLUDING STUDIES AND MAPPING FOR ADDITIONAL WATERSHEDS.

(III) THE FIS, FIRMS, AND REPORTS FOR THE HOWARD COUNTY FLOODPLAINS ARE RETAINED ON FILE AND AVAILABLE TO THE PUBLIC AT THE DEPARTMENT OF PUBLIC WORKS, BUREAU OF ENVIRONMENTAL SERVICES, 9801 BROKEN LAND PARKWAY, COLUMBIA, MARYLAND, 21046, AND ON THE COUNTY'S DIGITAL FLOOD INSURANCE RATE MAP WEBSITE: HTTPS://DATA.HOWARDCOUNTYMD.GOV/GDFIRM.

(2) WHERE FIELD SURVEYED TOPOGRAPHY OR DIGITAL TOPOGRAPHY INDICATES THAT GROUND ELEVATIONS ARE BELOW THE CLOSEST APPLICABLE BASE FLOOD ELEVATION, EVEN IN AREAS NOT DELINEATED AS A SPECIAL FLOOD HAZARD ON THE FIRM OR HOWARD COUNTY FLOODPLAINS, THE AREA SHALL BE CONSIDERED AS SPECIAL FLOOD HAZARD AREA.

(3) TO ESTABLISH BASE FLOOD ELEVATIONS IN SPECIAL FLOOD HAZARD AREAS THAT DO NOT HAVE SUCH ELEVATIONS SHOWN ON THE FIRM OR HOWARD COUNTY FLOODPLAINS, THE FLOODPLAIN ADMINISTRATOR MAY PROVIDE THE BEST AVAILABLE DATA FOR BASE FLOOD ELEVATIONS, MAY REQUIRE THE APPLICANT TO OBTAIN AVAILABLE INFORMATION FROM FEDERAL, STATE OR OTHER SOURCES, OR MAY REQUIRE THE APPLICANT TO ESTABLISH SPECIAL FLOOD HAZARD AREAS AND BASE FLOOD ELEVATIONS AS SET FORTH IN SECTION 16.702(C), SECTION 16.702(D), AND SECTION 16.702(E) OF THESE REGULATIONS.

(F) *ABROGATION AND GREATER RESTRICTIONS.* REGULATIONS GOVERNING THE FLOODPLAIN ARE NOT INTENDED TO REPEAL OR ABROGATE ANY EXISTING REGULATIONS AND ORDINANCES, INCLUDING SUBDIVISION REGULATIONS; THE HOWARD COUNTY ZONING REGULATIONS; THE HOWARD COUNTY BUILDING CODE, THIS SUBTITLE; TITLE 16, SUBTITLE 1; OR ANY EXISTING EASEMENTS, COVENANTS, OR DEED RESTRICTIONS. IF A CONFLICT EXISTS BETWEEN THESE REGULATIONS AND ANY OTHER CODE PROVISION, EASEMENT, COVENANT, OR DEED RESTRICTION, THE MORE RESTRICTIVE SHALL GOVERN.

(G) *INTERPRETATION.* IN THE INTERPRETATION AND APPLICATION OF THESE REGULATIONS, ALL PROVISIONS SHALL BE:

(1) CONSIDERED AS MINIMUM REQUIREMENTS;

(2) LIBERALLY CONSTRUED IN FAVOR OF THE GOVERNING BODY; AND,

(3) DEEMED NEITHER TO LIMIT NOR REPEAL ANY OTHER POWERS GRANTED UNDER STATE STATUTES.

NOTES REFERENCING PUBLICATIONS OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY REFER TO THE MOST RECENT EDITION OF THOSE PUBLICATIONS, ARE INTENDED ONLY AS GUIDANCE, AND DO NOT BIND OR ALTER THE AUTHORITY OF THE FLOODPLAIN ADMINISTRATOR TO INTERPRET AND APPLY THESE REGULATIONS.

(H) *WARNING AND DISCLAIMER OF LIABILITY*

THE DEGREE OF FLOOD PROTECTION REQUIRED BY THESE REGULATIONS IS CONSIDERED REASONABLE FOR REGULATORY PURPOSES AND IS BASED ON SCIENTIFIC AND ENGINEERING CONSIDERATIONS. LARGER FLOODS CAN AND WILL OCCUR, AND FLOOD HEIGHTS MAY BE INCREASED BY MANMADE OR NATURAL CAUSES. THESE REGULATIONS DO NOT IMPLY THAT LAND OUTSIDE OF THE SPECIAL FLOOD HAZARD AREAS OR USES THAT ARE PERMITTED WITHIN SUCH AREAS WILL BE FREE FROM FLOODING OR FLOOD DAMAGE.

THESE REGULATIONS SHALL NOT CREATE LIABILITY ON THE PART OF HOWARD COUNTY, MARYLAND, ANY OFFICER OR EMPLOYEE THEREOF, THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) OR THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), FOR ANY FLOOD DAMAGE THAT RESULTS FROM RELIANCE ON THESE REGULATIONS OR ANY ADMINISTRATIVE DECISION LAWFULLY MADE HEREUNDER.

**SECTION 16.701. DEFINITIONS.**

EXCEPT AS SPECIFICALLY DEFINED IN THIS SECTION OR SECTION 3115 OF THE HOWARD COUNTY BUILDING CODE, WORDS OR PHRASES USED IN THESE REGULATIONS SHALL BE INTERPRETED TO HAVE THE MEANING THEY HAVE IN COMMON USAGE AND, WHERE NOT SPECIFICALLY DEFINED, ARE GIVEN THE MOST REASONABLE APPLICATION:

(A) *ACCESSORY STRUCTURE AND AGRICULTURAL STRUCTURE*: A NON-RESIDENTIAL BUILDING OR STRUCTURE ON THE SAME LOT WITH, AND OF A NATURE CUSTOMARILY INCIDENTAL AND SUBORDINATE TO, THE PRINCIPAL STRUCTURE. FOR THE PURPOSES OF THESE FLOODPLAIN

REGULATIONS, THE PERMITTING THRESHOLDS AND EXEMPTIONS FOR ACCESSORY AND AGRICULTURAL STRUCTURES DO NOT APPLY; PROPOSALS FOR ALL NEW CONSTRUCTION OF NEW AND SUBSTANTIALLY IMPROVED ACCESSORY AND AGRICULTURAL STRUCTURES IN SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, REQUIRE PERMITS. ACCESSORY STRUCTURES INCLUDE BUT ARE NOT LIMITED TO DETACHED GARAGES, STORAGE SHEDS, GAZEBOS, PICNIC PAVILIONS, BOATHOUSES, SMALL POLE BARNS, SWIMMING POOLS AND SPAS AND RELATED DECKING, FENCES AND PRIVACY WALLS, EROSION CONTROL STRUCTURES, SPORTS COURTS, CONCRETE SLABS AND PATIOS, AND ON-SITE SEPTIC SYSTEMS. AGRICULTURAL STRUCTURES ARE THOSE USED EXCLUSIVELY IN CONNECTION WITH THE PRODUCTION, HARVESTING, STORAGE, RAISING OR DRYING OF AGRICULTURAL COMMODITIES AND LIVESTOCK, INCLUDING STRUCTURES RELATED TO AQUACULTURE. AGRICULTURAL STRUCTURES INCLUDE BUT ARE NOT LIMITED TO BARNS, LOAFING SHEDS, POULTRY COOPS AND BROODERS, FENCING AND CORRALS, SILOS, EQUIPMENT SHEDS, COLD STORAGE, GREENHOUSES, HOOP HOUSES, PUMP HOUSES, WORKSHOPS, AND FARM STANDS.

(B) *ADJACENT TO A FLOODPLAIN*. PARCELS SHARING A COMMON BORDER WITH OR INTERSECTED BY A SPECIAL FLOOD HAZARD AREA, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS.

(C) *AGREEMENT TO SUBMIT AN ELEVATION CERTIFICATE*: A FORM ON WHICH THE APPLICANT FOR A PERMIT TO CONSTRUCT A BUILDING OR STRUCTURE, TO CONSTRUCT CERTAIN HORIZONTAL ADDITIONS, TO PLACE OR REPLACE A MANUFACTURED HOME, TO SUBSTANTIALLY IMPROVE A BUILDING, STRUCTURE, OR MANUFACTURED HOME, AGREES TO HAVE AN ELEVATION CERTIFICATE PREPARED BY A LICENSED PROFESSIONAL ENGINEER OR LICENSED PROFESSIONAL SURVEYOR, AS SPECIFIED BY THE DIRECTOR OF THE DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR, AND TO SUBMIT THE CERTIFICATE:

(1) UPON PLACEMENT OF THE LOWEST FLOOR AND PRIOR TO FURTHER VERTICAL CONSTRUCTION; AND

(2) PRIOR TO THE FINAL INSPECTION AND ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.

(D) *ALTERATION OF A WATERCOURSE*: FOR THE PURPOSE OF THESE REGULATIONS, ALTERATION OF A WATERCOURSE INCLUDES, BUT IS NOT LIMITED TO WIDENING, DEEPENING OR RELOCATING THE

CHANNEL, INCLUDING EXCAVATION OR FILLING OF THE CHANNEL. ALTERATION OF A WATERCOURSE DOES NOT INCLUDE CONSTRUCTION OF A ROAD, BRIDGE, CULVERT, DAM, OR IN-STREAM POND UNLESS THE CHANNEL IS PROPOSED TO BE REALIGNED OR RELOCATED AS PART OF SUCH CONSTRUCTION.

(E) *AREA OF SHALLOW FLOODING*: A DESIGNATED ZONE AO ON THE FLOOD INSURANCE RATE MAP WITH A 1-PERCENT ANNUAL CHANCE OR GREATER OF FLOODING TO AN AVERAGE DEPTH OF ONE TO THREE FEET WHERE A CLEARLY DEFINED CHANNEL DOES NOT EXIST, WHERE THE PATH OF FLOODING IS UNPREDICTABLE, AND WHERE VELOCITY FLOW MAY BE EVIDENT; SUCH FLOODING IS CHARACTERIZED BY PONDING OR SHEET FLOW.

(F) *BASE BUILDING*: THE BUILDING TO WHICH AN ADDITION IS BEING ADDED. THIS TERM IS USED IN PROVISIONS RELATING TO ADDITIONS.

(G) *BASE FLOOD*: THE FLOOD HAVING A ONE-PERCENT CHANCE OF BEING EQUALED OR EXCEEDED IN ANY GIVEN YEAR; THE BASE FLOOD ALSO IS REFERRED TO AS THE 1-PERCENT ANNUAL CHANCE (100-YEAR) FLOOD.

(H) *BASE FLOOD ELEVATION*: THE WATER SURFACE ELEVATION OF THE BASE FLOOD IN RELATION TO THE DATUM SPECIFIED ON THE COMMUNITY'S FLOOD INSURANCE RATE MAP AND HOWARD COUNTY FLOODPLAINS. IN AREAS OF SHALLOW FLOODING, THE BASE FLOOD ELEVATION IS THE HIGHEST ADJACENT NATURAL GRADE ELEVATION PLUS THE DEPTH NUMBER SPECIFIED IN FEET ON THE FLOOD INSURANCE RATE MAP, OR AT LEAST FOUR (4) FEET IF THE DEPTH NUMBER IS NOT SPECIFIED.

(I) *BASEMENT*: ANY AREA OF THE BUILDING HAVING ITS FLOOR SUBGRADE (BELOW GROUND LEVEL) ON ALL SIDES.

(J) *BUILDING CODE(S)*: THE BUILDING CODE OF HOWARD COUNTY ADOPTED PURSUANT TO SUBTITLE 1, "BUILDING CODE" OF TITLE 3, "BUILDINGS," OF THE HOWARD COUNTY CODE, THE EFFECTIVE MARYLAND BUILDING PERFORMANCE STANDARDS (COMAR 05.02.07), INCLUDING THE BUILDING CODE, RESIDENTIAL CODE, AND EXISTING BUILDING CODE.

(K) *COMMUNITY*: A POLITICAL SUBDIVISION OF THE STATE OF MARYLAND (COUNTY, CITY OR TOWN) THAT HAS AUTHORITY TO ADOPT AND ENFORCE FLOODPLAIN MANAGEMENT REGULATIONS WITHIN ITS JURISDICTIONAL BOUNDARIES.

(L) *CRITICAL AND ESSENTIAL FACILITIES*: BUILDINGS AND OTHER STRUCTURES THAT ARE INTENDED TO REMAIN OPERATIONAL IN THE EVENT OF EXTREME ENVIRONMENTAL LOADING FROM FLOOD,

WIND, SNOW OR EARTHQUAKES. [NOTE: SEE MARYLAND BUILDING PERFORMANCE STANDARDS, SEC. 1602 AND TABLE 1604.5.] CRITICAL AND ESSENTIAL FACILITIES TYPICALLY INCLUDE HOSPITALS, FIRE STATIONS, POLICE STATIONS, STORAGE OF CRITICAL RECORDS, FACILITIES THAT HANDLE OR STORE HAZARDOUS MATERIALS, AND SIMILAR FACILITIES.

(M) *DECLARATION OF LAND RESTRICTION (NONCONVERSION AGREEMENT)*: A FORM SIGNED BY THE OWNER TO AGREE NOT TO CONVERT OR MODIFY IN ANY MANNER THAT IS INCONSISTENT WITH THE TERMS OF THE PERMIT AND THESE REGULATIONS, CERTAIN ENCLOSURES BELOW THE LOWEST FLOOR OF ELEVATED BUILDINGS AND CERTAIN ACCESSORY STRUCTURES. THE FORM REQUIRES THE OWNER TO RECORD IT ON THE PROPERTY DEED TO INFORM FUTURE OWNERS OF THE RESTRICTIONS.

(N) *DESIGN MANUAL*. HOWARD COUNTY'S TECHNICAL STANDARDS, APPROVED BY RESOLUTION OF THE COUNTY COUNCIL, FOR DESIGN, CONSTRUCTION AND INSPECTION OF BRIDGES, ROADS, STORM DRAINAGE STRUCTURES, STORMWATER MANAGEMENT SYSTEMS, SIDEWALKS, WALKWAYS, PARKING AREAS, TRAFFIC CONTROL DEVICES, WATER AND SEWER FACILITIES, AND OTHER IMPROVEMENTS.

(O) *DEVELOPMENT*: ANY MANMADE CHANGE TO IMPROVED OR UNIMPROVED REAL ESTATE, INCLUDING BUT NOT LIMITED TO BUILDINGS OR OTHER STRUCTURES INCLUDING ACCESSORY STRUCTURES AND AGRICULTURAL STRUCTURES, PLACEMENT OF MANUFACTURED HOMES, MINING, DREDGING, FILLING, GRADING, PAVING, EXCAVATION, DRILLING OPERATIONS, STORAGE OF EQUIPMENT OR MATERIALS, AND ANY AGRICULTURAL EARTH-MOVING PRACTICES THAT ALTER THE TOPOGRAPHY, DRAINAGE, OR CROSS-SECTIONAL PROFILE OF THE LAND SUCH AS GRADING AND FILLING, EXCAVATION AND DREDGING, DRAINAGE ALTERATION, STREAMBANK ALTERATIONS, LEVEE AND BERM CONSTRUCTION, AND LAND CLEARING AND GRUBBING. ROUTINE AGRICULTURAL PRACTICES SUCH AS TILLING, PLANTING, AND HARVESTING ARE CONSIDERED NORMAL LAND MAINTENANCE AND ARE NOT CONSIDERED DEVELOPMENT, PROVIDED THEY DO NOT INVOLVE SIGNIFICANT CHANGES TO THE LAND'S SURFACE ELEVATION.

(P) *ELEVATION CERTIFICATE*: FEMA FORM ON WHICH SURVEYED ELEVATIONS AND OTHER DATA PERTINENT TO A PROPERTY AND A BUILDING ARE IDENTIFIED AND WHICH SHALL BE COMPLETED BY A LICENSED PROFESSIONAL LAND SURVEYOR OR A LICENSED PROFESSIONAL ENGINEER, AS SPECIFIED BY THE DIRECTOR OF THE DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS

ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR. WHEN USED TO DOCUMENT THE HEIGHT ABOVE GRADE OF BUILDINGS IN SPECIAL FLOOD HAZARD AREAS FOR WHICH BASE FLOOD ELEVATION DATA ARE NOT AVAILABLE, THE ELEVATION CERTIFICATE SHALL BE COMPLETED IN ACCORDANCE WITH THE INSTRUCTIONS ISSUED BY FEMA. [NOTE: FEMA FORM 086-0-33 AND INSTRUCTIONS ARE AVAILABLE ONLINE AT HTTPS://WWW.FEMA.GOV/MEDIA-LIBRARY/ASSETS/DOCUMENTS/160.]

(Q) *ENCLOSURE BELOW THE LOWEST FLOOR*: AN UNFINISHED OR FLOOD-RESISTANT ENCLOSURE THAT IS LOCATED BELOW AN ELEVATED BUILDING, IS SURROUNDED BY WALLS ON ALL SIDES, AND IS USABLE SOLELY FOR PARKING OF VEHICLES, BUILDING ACCESS OR STORAGE, IN AN AREA OTHER THAN A BASEMENT AREA, PROVIDED THAT SUCH ENCLOSURE IS BUILT IN ACCORDANCE WITH THE APPLICABLE DESIGN REQUIREMENTS SPECIFIED IN THESE REGULATIONS. ALSO SEE "LOWEST FLOOR."

(R) *FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)*: THE FEDERAL AGENCY WITH THE OVERALL RESPONSIBILITY FOR ADMINISTERING THE NATIONAL FLOOD INSURANCE PROGRAM.

(S) *FLOOD OR FLOODING*: A GENERAL AND TEMPORARY CONDITION OF PARTIAL OR COMPLETE INUNDATION OF NORMALLY DRY LAND AREAS FROM:

(1) THE OVERFLOW OF INLAND OR TIDAL WATERS, AND/OR

(2) THE UNUSUAL AND RAPID ACCUMULATION OR RUNOFF OF SURFACE WATERS FROM ANY SOURCE.

(T) *FLOOD DAMAGE-RESISTANT MATERIALS*: ANY CONSTRUCTION MATERIAL THAT IS CAPABLE OF WITHSTANDING DIRECT AND PROLONGED CONTACT WITH FLOODWATERS WITHOUT SUSTAINING ANY DAMAGE THAT REQUIRES MORE THAN COSMETIC REPAIR. [NOTE: SEE NFIP TECHNICAL BULLETIN #2, "FLOOD DAMAGE-RESISTANT MATERIALS REQUIREMENTS."]

(U) *FLOOD INSURANCE RATE MAP (FIRM)*: AN OFFICIAL MAP ON WHICH THE FEDERAL EMERGENCY MANAGEMENT AGENCY HAS DELINEATED SPECIAL FLOOD HAZARD AREAS TO INDICATE THE MAGNITUDE AND NATURE OF FLOOD HAZARDS, TO DESIGNATE APPLICABLE FLOOD ZONES, AND TO DELINEATE FLOODWAYS, IF APPLICABLE. FIRMS THAT HAVE BEEN PREPARED IN DIGITAL FORMAT OR CONVERTED TO DIGITAL FORMAT ARE REFERRED TO AS DIGITAL FIRMS (DFIRM).

(V) *FLOOD INSURANCE STUDY (FIS)*: THE OFFICIAL REPORT IN WHICH THE FEDERAL EMERGENCY MANAGEMENT AGENCY HAS PROVIDED FLOOD PROFILES, FLOODWAY INFORMATION, AND THE WATER SURFACE ELEVATIONS.

(W) *FLOOD OPENING*: A FLOOD OPENING (NON-ENGINEERED) IS AN OPENING THAT IS USED TO MEET THE PRESCRIPTIVE REQUIREMENT OF 1 SQUARE INCH OF NET OPEN AREA FOR EVERY SQUARE FOOT OF ENCLOSED AREA. AN ENGINEERED FLOOD OPENING IS AN OPENING THAT IS DESIGNED AND CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER OR LICENSED ARCHITECT AS MEETING CERTAIN PERFORMANCE CHARACTERISTICS, INCLUDING PROVIDING AUTOMATIC ENTRY AND EXIT OF FLOODWATERS; THIS CERTIFICATION REQUIREMENT MAY BE SATISFIED BY AN INDIVIDUAL CERTIFICATION FOR A SPECIFIC STRUCTURE OR ISSUANCE OF AN EVALUATION REPORT BY THE ICC EVALUATION SERVICE, INC. [NOTE: SEE NFIP TECHNICAL BULLETIN #1, "OPENINGS IN FOUNDATION WALLS AND WALLS OF ENCLOSURES."]

(X) *FLOOD PROTECTION ELEVATION*: THE BASE FLOOD ELEVATION PLUS TWO (2) FEET OF FREEBOARD. FREEBOARD IS A FACTOR OF SAFETY THAT COMPENSATES FOR UNCERTAINTY IN FACTORS THAT COULD CONTRIBUTE TO FLOOD HEIGHTS GREATER THAN THE HEIGHT CALCULATED FOR A SELECTED SIZE FLOOD AND FLOODWAY CONDITIONS, SUCH AS WAVE ACTION, OBSTRUCTED BRIDGE OPENINGS, DEBRIS AND ICE JAMS, CLIMATE CHANGE, AND THE HYDROLOGIC EFFECT OF URBANIZATION IN A WATERSHED.

(Y) *FLOOD PROTECTION SETBACK*: A DISTANCE MEASURED PERPENDICULAR TO THE SPECIAL FLOOD HAZARD AREA, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, THAT DELINEATES AN AREA TO BE LEFT UNDISTURBED TO MINIMIZE FUTURE FLOOD DAMAGE AND TO RECOGNIZE THE POTENTIAL FOR BANK EROSION ON PARCELS INTERSECTED BY SPECIAL FLOOD HAZARD AREAS. ALONG NONTIDAL WATERS OF THE STATE IN HOWARD COUNTY, MARYLAND, THE FLOOD PROTECTION SETBACK IS DETERMINED BY THE DEPARTMENT OF PLANNING AND ZONING AND THE DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS ON A CASE-BY-CASE BASIS RELATIVE TO SITE-SPECIFIC CONDITIONS, INCLUDING:

(1) THE EXISTENCE OF WETLANDS, WETLAND BUFFERS, STREAMS, STREAM BUFFERS, AND STEEP SLOPES

(2) THE REQUIREMENTS SET FORTH IN SECTION 16.116 OF THIS CODE. .

(Z) *FLOOD ZONE*: A DESIGNATION FOR AREAS THAT ARE SHOWN ON FLOOD INSURANCE RATE MAPS AND HOWARD COUNTY FLOODPLAINS:

(1) *ZONE A*: FEMA SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1-PERCENT ANNUAL CHANCE (100-YEAR) FLOOD; BASE FLOOD ELEVATIONS MAY OR MAY NOT BE DETERMINED.

(2) *ZONE AE AND ZONE A1-30*: FEMA SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1-PERCENT ANNUAL CHANCE (100-YEAR) FLOOD; BASE FLOOD ELEVATIONS ARE DETERMINED; FLOODWAYS MAY OR MAY NOT BE DETERMINED.

(3) *ZONE AH AND ZONE AO*: AREAS OF SHALLOW FLOODING, WITH FLOOD DEPTHS OF 1 TO 3 FEET (USUALLY AREAS OF PONDING OR SHEET FLOW ON SLOPING TERRAIN), WITH OR WITHOUT BFES OR DESIGNATED FLOOD DEPTHS.

(4) *ZONE B AND ZONE X (SHADED)*: AREAS SUBJECT TO INUNDATION BY THE 0.2-PERCENT ANNUAL CHANCE (500-YEAR) FLOOD; AND AREAS SUBJECT TO THE 1-PERCENT ANNUAL CHANCE (100-YEAR) FLOOD WITH CONTRIBUTING DRAINAGE AREA LESS THAN 1 SQUARE MILE. SHADED X ZONES SUBJECT TO THE 1-PERCENT ANNUAL CHANCE (100-YEAR) FLOOD WITH CONTRIBUTING DRAINAGE AREA LESS THAN 1 SQUARE MILE ARE CONSIDERED COMMUNITY SPECIAL FLOOD HAZARD AREAS IN HOWARD COUNTY, MARYLAND.

(5) *ZONE C AND ZONE X (UNSHADED)*: AREAS OUTSIDE OF ZONES DESIGNATED A, AE, A1-30, AO, VE, V1-30, B, AND X (SHADED).

(6) *ZONE VE AND ZONE V1-30*: FEMA SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1-PERCENT ANNUAL CHANCE (100-YEAR) FLOOD AND SUBJECT TO HIGH VELOCITY WAVE ACTION.

(7) HOWARD COUNTY 30-ACRE 100-YEAR FLOODPLAIN: COMMUNITY SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1-PERCENT ANNUAL CHANCE (100-YEAR) FLOOD.

(8) HOWARD COUNTY 30-ACRE 500-YEAR FLOODPLAIN: AREAS SUBJECT TO INUNDATION BY THE 0.2-PERCENT ANNUAL CHANCE (500-YEAR) FLOOD.

(AA) *FLOODPLAIN*: ANY LAND AREA SUSCEPTIBLE TO BEING INUNDATED BY WATER FROM ANY SOURCE (SEE DEFINITION OF "FLOOD" OR "FLOODING"). EACH REFERENCE IN THE HOWARD COUNTY CODE OR THE HOWARD COUNTY ZONING REGULATIONS TO THE "100-YEAR FLOODPLAIN" SHALL MEAN SPECIAL FLOOD HAZARD AREA INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS.

(AB) *FLOODPROOFING OR FLOODPROOFED*: ANY COMBINATION OF STRUCTURAL AND NONSTRUCTURAL ADDITIONS, CHANGES, OR ADJUSTMENTS TO BUILDINGS OR STRUCTURES WHICH REDUCE OR ELIMINATE FLOOD DAMAGE TO REAL ESTATE OR IMPROVED REAL PROPERTY, WATER AND SANITARY FACILITIES, STRUCTURES AND THEIR CONTENTS, SUCH THAT THE

BUILDINGS OR STRUCTURES ARE 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. [NOTE: STATE REGULATIONS AT COMAR 26.17.04.11(B)(7) DO NOT ALLOW NEW NONRESIDENTIAL BUILDINGS IN NONTIDAL WATERS OF THE STATE TO BE FLOODPROOFED.]

(AC) *FLOODPROOFING CERTIFICATE*: FEMA FORM THAT IS TO BE COMPLETED, SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER OR LICENSED ARCHITECT TO CERTIFY THAT THE DESIGN OF FLOODPROOFING AND PROPOSED METHODS OF CONSTRUCTION ARE IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF SECTION 16.704(E)(2) OF THIS SUBTITLE. [NOTE: FEMA FORM 086-0-34 IS AVAILABLE ONLINE AT HTTPS://WWW.FEMA.GOV/MEDIA-LIBRARY/ASSETS/DOCUMENTS/2748.]

(AD) *FLOODWAY*: THE CHANNEL OF A RIVER OR OTHER WATERCOURSE AND THE ADJACENT LAND AREAS THAT MUST BE RESERVED IN ORDER TO PASS THE BASE FLOOD DISCHARGE SUCH THAT THE CUMULATIVE INCREASE IN THE WATER SURFACE ELEVATION OF THE BASE FLOOD DISCHARGE IS NO MORE THAN A DESIGNATED HEIGHT, WHICH IS 0.0 FEET IN HOWARD COUNTY. WHEN SHOWN ON A FIRM, THE FLOODWAY IS REFERRED TO AS THE "DESIGNATED FLOODWAY."

(AE) *FREE-OF-OBSTRUCTION*: A TERM THAT DESCRIBES OPEN FOUNDATIONS (PILINGS, COLUMNS, OR PIERS) WITHOUT ATTACHED ELEMENTS OR FOUNDATION COMPONENTS THAT WOULD OBSTRUCT THE FREE PASSAGE OF FLOODWATERS AND WAVES BENEATH STRUCTURES THAT ARE ELEVATED ON SUCH FOUNDATIONS. [NOTE: SEE NFIP TECHNICAL BULLETIN #5, "FREE-OF-OBSTRUCTION REQUIREMENTS."]

(AF) *FUNCTIONALLY DEPENDENT USE*: A USE WHICH CANNOT PERFORM ITS INTENDED PURPOSE UNLESS IT IS LOCATED OR CARRIED OUT IN CLOSE PROXIMITY TO WATER; THE TERM INCLUDES ONLY DOCKING FACILITIES, PORT FACILITIES THAT ARE NECESSARY FOR THE LOADING AND UNLOADING OF CARGO OR PASSENGERS, AND SHIP BUILDING AND SHIP REPAIR FACILITIES, BUT DOES NOT INCLUDE LONG-TERM STORAGE OR RELATED MANUFACTURING FACILITIES.

(AG) *HIGHEST ADJACENT GRADE*: THE HIGHEST NATURAL ELEVATION OF THE GROUND SURFACE, PRIOR TO CONSTRUCTION, NEXT TO THE PROPOSED FOUNDATION OF A STRUCTURE.

(AH) *HISTORIC STRUCTURE*:

(1) ANY STRUCTURE THAT IS:

(I) INDIVIDUALLY LISTED IN THE NATIONAL REGISTER OF HISTORIC PLACES (A LISTING MAINTAINED BY THE U.S. DEPARTMENT OF THE INTERIOR);

(II) DETERMINED BY THE SECRETARY OF THE INTERIOR OR THE MARYLAND STATE HISTORIC PRESERVATION OFFICER AS MEETING THE REQUIREMENTS FOR INDIVIDUAL LISTINGS ON THE NATIONAL REGISTER;

(III) CERTIFIED OR PRELIMINARILY DETERMINED BY THE SECRETARY OF THE INTERIOR AS CONTRIBUTING TO THE HISTORICAL SIGNIFICANCE OF AN HISTORIC DISTRICT LISTED IN THE NATIONAL REGISTER OF HISTORIC PLACES; OR

(IV) CERTIFIED OR PRELIMINARILY DETERMINED BY THE SECRETARY OF THE INTERIOR AS CONTRIBUTING TO THE HISTORICAL SIGNIFICANCE OF AN HISTORIC DISTRICT THAT MEETS THE REQUIREMENTS FOR LISTING IN THE NATIONAL REGISTER OF HISTORIC PLACES.

(2) IF HOWARD COUNTY, MARYLAND, BECOMES A CERTIFIED LOCAL GOVERNMENT WITH THE NATIONAL PARK SERVICE, HISTORIC STRUCTURES ALSO INCLUDE ANY STRUCTURE THAT IS INDIVIDUALLY LISTED ON THE INVENTORY OF HISTORIC PLACES MAINTAINED BY HOWARD COUNTY, MARYLAND, WHOSE HISTORIC PRESERVATION PROGRAM HAS BEEN CERTIFIED BY THE MARYLAND HISTORICAL TRUST OR THE SECRETARY OF THE INTERIOR.

(AI) *HYDROLOGIC AND HYDRAULIC ENGINEERING ANALYSES*: ANALYSES PERFORMED BY A LICENSED PROFESSIONAL ENGINEER, IN ACCORDANCE WITH STANDARD ENGINEERING PRACTICES THAT ARE ACCEPTED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (NONTIDAL WETLANDS & WATERWAYS) AND FEMA, USED TO DETERMINE THE BASE FLOOD, OTHER FREQUENCY FLOODS, FLOOD ELEVATIONS, FLOODWAY INFORMATION AND BOUNDARIES, AND FLOOD PROFILES.

(AJ) *LETTER OF MAP CHANGE (LOMC)*: A LETTER OF MAP CHANGE IS AN OFFICIAL FEMA DETERMINATION, BY LETTER, THAT AMENDS OR REVISES AN EFFECTIVE FLOOD INSURANCE RATE MAP OR FLOOD INSURANCE STUDY. LETTERS OF MAP CHANGE INCLUDE:

(1) LETTER OF MAP AMENDMENT (LOMA): AN AMENDMENT BASED ON TECHNICAL DATA SHOWING THAT A PROPERTY WAS INCORRECTLY INCLUDED IN A DESIGNATED FEMA SPECIAL FLOOD HAZARD AREA. A LOMA AMENDS THE CURRENT EFFECTIVE FLOOD INSURANCE RATE MAP AND ESTABLISHES THAT A SPECIFIC PROPERTY OR STRUCTURE IS NOT LOCATED IN A FEMA SPECIAL FLOOD HAZARD AREA.

(2) LETTER OF MAP REVISION (LOMR): A REVISION BASED ON TECHNICAL DATA THAT MAY SHOW CHANGES TO EFFECTIVE FEMA FLOOD INSURANCE RATE MAP OR FLOOD INSURANCE STUDY FLOOD ZONES, FLOOD ELEVATIONS, FLOODPLAIN AND FLOODWAY DELINEATIONS, AND PLANIMETRIC FEATURES. A LETTER OF MAP REVISION BASED ON FILL (LOMR-F), IS A DETERMINATION THAT A STRUCTURE OR PARCEL OF LAND HAS BEEN ELEVATED BY FILL ABOVE THE BASE FLOOD ELEVATION AND IS, THEREFORE, NO LONGER EXPOSED TO FLOODING ASSOCIATED WITH THE BASE FLOOD. IN ORDER TO QUALIFY FOR THIS DETERMINATION, THE FILL MUST HAVE BEEN PERMITTED AND PLACED IN ACCORDANCE WITH THE COMMUNITY'S FLOODPLAIN MANAGEMENT REGULATIONS.

(3) CONDITIONAL LETTER OF MAP REVISION (CLOMR): A FORMAL REVIEW AND COMMENT AS TO WHETHER A PROPOSED FLOOD PROTECTION PROJECT OR OTHER PROJECT COMPLIES WITH THE MINIMUM NFIP REQUIREMENTS FOR SUCH PROJECTS WITH RESPECT TO DELINEATION OF FEMA SPECIAL FLOOD HAZARD AREAS. A CONDITIONAL LETTER OF MAP REVISION BASED ON FILL (CLOMR-F) IS A DETERMINATION THAT A PARCEL OF LAND OR PROPOSED STRUCTURE THAT WILL BE ELEVATED BY FILL WOULD NOT BE INUNDATED BY THE BASE FLOOD IF FILL IS PLACED ON THE PARCEL AS PROPOSED OR THE STRUCTURE IS BUILT AS PROPOSED. A CLOMR DOES NOT REVISE THE EFFECTIVE FLOOD INSURANCE RATE MAP OR FLOOD INSURANCE STUDY; UPON SUBMISSION AND APPROVAL OF CERTIFIED AS-BUILT DOCUMENTATION, A LETTER OF MAP REVISION MAY BE ISSUED BY FEMA, TO REVISE THE EFFECTIVE FIRM.

(AK) *LICENSED:* AS USED IN THESE REGULATIONS, LICENSED REFERS TO PROFESSIONALS WHO ARE AUTHORIZED TO PRACTICE IN THE STATE OF MARYLAND BY ISSUANCE OF LICENSES BY THE MARYLAND BOARD OF ARCHITECTS, MARYLAND BOARD OF PROFESSIONAL ENGINEERS, MARYLAND BOARD OF PROFESSIONAL LAND SURVEYORS, AND THE MARYLAND REAL ESTATE APPRAISERS AND HOME INSPECTORS COMMISSION.

(AL) *LOWEST FLOOR*: THE LOWEST FLOOR OF THE LOWEST ENCLOSED AREA (INCLUDING BASEMENT) OF A BUILDING OR STRUCTURE; THE FLOOR OF AN ENCLOSURE BELOW THE LOWEST FLOOR IS NOT THE LOWEST FLOOR PROVIDED THE ENCLOSURE IS CONSTRUCTED IN ACCORDANCE WITH THESE REGULATIONS, INCLUDING AN UNFINISHED OR FLOOD RESISTANT ENCLOSURE USED SOLELY FOR PARKING VEHICLES, BUILDING ACCESS, OR STORAGE IN AN AREA OTHER THAN A BASEMENT AREA. THE LOWEST FLOOR OF A MANUFACTURED HOME IS THE

BOTTOM OF THE LOWEST HORIZONTAL SUPPORTING MEMBER (LONGITUDINAL CHASSIS FRAME BEAM). THE ENCLOSURE SHALL NOT BE BUILT SO AS TO RENDER THE STRUCTURE IN VIOLATION OF THE APPLICABLE NON-ELEVATION DESIGN REQUIREMENTS OF SUBSECTIONS 3115.4 AND 3115.6 OF THE HOWARD COUNTY BUILDING CODE.

(AM) *MANUFACTURED HOME*: A STRUCTURE, TRANSPORTABLE IN ONE OR MORE SECTIONS, WHICH IS BUILT ON A PERMANENT CHASSIS AND IS DESIGNED FOR USE WITH OR WITHOUT A PERMANENT FOUNDATION WHEN CONNECTED TO THE REQUIRED UTILITIES. THE TERM MANUFACTURED HOME DOES NOT INCLUDE A RECREATIONAL VEHICLE.

(AN) *MARKET VALUE*: THE PRICE AT WHICH A PROPERTY WILL CHANGE HANDS BETWEEN A WILLING BUYER AND A WILLING SELLER, NEITHER PARTY BEING UNDER COMPULSION TO BUY OR SELL AND BOTH HAVING REASONABLE KNOWLEDGE OF RELEVANT FACTS. FOR THE PURPOSES OF THESE REGULATIONS, THE MARKET VALUE OF A BUILDING IS DETERMINED BY A LICENSED REAL ESTATE APPRAISER OR THE MOST RECENT, FULL PHASED-IN ASSESSMENT VALUE OF THE BUILDING (IMPROVEMENT) DETERMINED BY THE MARYLAND DEPARTMENT OF ASSESSMENTS AND TAXATION.

(AO) *MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE)*: A PRINCIPAL DEPARTMENT OF THE STATE OF MARYLAND THAT IS CHARGED WITH, AMONG OTHER RESPONSIBILITIES, THE COORDINATION OF THE NATIONAL FLOOD INSURANCE PROGRAM IN MARYLAND (NFIP STATE COORDINATOR) AND THE ADMINISTRATION OF REGULATORY PROGRAMS FOR DEVELOPMENT AND CONSTRUCTION THAT OCCUR WITHIN THE WATERS OF THE STATE, INCLUDING NONTIDAL WETLANDS, NONTIDAL WATERS AND FLOODPLAINS, AND STATE AND PRIVATE TIDAL WETLANDS (TIDAL WETLANDS). UNLESS OTHERWISE SPECIFIED, "MDE" REFERS TO THE DEPARTMENT'S WETLANDS AND WATERWAYS PROGRAM.

(AP) *MIXED-USE STRUCTURE*: ANY STRUCTURE THAT IS USED OR INTENDED FOR USE FOR A MIXTURE OF NONRESIDENTIAL AND RESIDENTIAL USES IN THE SAME STRUCTURE.

(AQ) *NATIONAL FLOOD INSURANCE PROGRAM (NFIP)*: THE PROGRAM AUTHORIZED BY THE U.S. CONGRESS IN 42 U.S.C. §§4001 - 4129. THE NFIP MAKES FLOOD INSURANCE COVERAGE AVAILABLE IN COMMUNITIES THAT AGREE TO ADOPT AND ENFORCE MINIMUM REGULATORY REQUIREMENTS FOR DEVELOPMENT IN AREAS PRONE TO FLOODING (SEE DEFINITION OF "SPECIAL FLOOD HAZARD AREA").

(AR) *NEW CONSTRUCTION*: STRUCTURES, INCLUDING ADDITIONS AND IMPROVEMENTS, AND THE PLACEMENT OF MANUFACTURED HOMES, FOR WHICH THE START OF CONSTRUCTION COMMENCED ON OR AFTER MARCH 15, 1977, THE INITIAL EFFECTIVE DATE OF THE HOWARD COUNTY, MARYLAND, FLOOD INSURANCE RATE MAP, INCLUDING ANY SUBSEQUENT IMPROVEMENTS, ALTERATIONS, MODIFICATIONS, AND ADDITIONS TO SUCH STRUCTURES. THE REPAIR OR REPLACEMENT OF A MANUFACTURED HOME BECAUSE OF SUBSTANTIAL DAMAGE IS CONSIDERED TO BE NEW CONSTRUCTION AND IS PROHIBITED IN ACCORDANCE WITH SECTION 3115.2.1 OF THE BUILDING CODE.

(AS) *NFIP STATE COORDINATOR*: SEE MARYLAND DEPARTMENT OF THE ENVIRONMENT.

(AT) *NONTIDAL WATERS OF THE STATE*: SEE "WATERS OF THE STATE." AS USED IN THESE REGULATIONS, "NONTIDAL WATERS OF THE STATE" REFERS TO ANY STREAM OR BODY OF WATER WITHIN THE STATE THAT IS SUBJECT TO STATE REGULATION, INCLUDING THE "100-YEAR FREQUENCY FLOODPLAIN OF FREE-FLOWING WATERS." COMAR 26.17.04 STATES THAT "THE LANDWARD BOUNDARIES OF ANY TIDAL WATERS SHALL BE DEEMED COTERMINOUS WITH THE WETLANDS BOUNDARY MAPS ADOPTED PURSUANT TO ENVIRONMENT ARTICLE, §16-301, ANNOTATED CODE OF MARYLAND." THEREFORE, THE BOUNDARY BETWEEN THE TIDAL AND NONTIDAL WATERS OF THE STATE IS THE TIDAL WETLANDS BOUNDARY.

(AU) *NO-RISE CERTIFICATION*. AN ENCROACHMENT REVIEW THAT MUST BE SUBMITTED WHEN ANY NEW CONSTRUCTION, SUBSTANTIAL IMPROVEMENT, OR REPAIR FOR A SUBSTANTIALLY DAMAGED BUILDING IS PROPOSED IN OR ADJACENT TO THE SPECIAL FLOOD HAZARD AREA (SFHA). THIS CERTIFICATION CERTIFIES THAT A DEVELOPMENT PROJECT WILL NOT AFFECT FLOOD HEIGHTS UPSTREAM, DOWNSTREAM, OR ADJACENT TO THE PROJECT SITE. THE PERMISSIBLE RISE FOR ANY SINGLE ENCROACHMENT IS ZERO FEET. THE CERTIFICATION MUST BE SUPPORTED BY TECHNICAL DATA AND HYDRAULIC MODELING.

(AV) *PERSON*: AN INDIVIDUAL OR GROUP OF INDIVIDUALS, CORPORATION, PARTNERSHIP, ASSOCIATION, OR ANY OTHER ENTITY, INCLUDING STATE AND LOCAL GOVERNMENTS AND AGENCIES.

(AW) *RECREATIONAL VEHICLE*: A VEHICLE THAT IS BUILT ON A SINGLE CHASSIS, 400 SQUARE FEET OR LESS WHEN MEASURED AT THE LARGEST HORIZONTAL PROJECTION, DESIGNED TO BE SELF-PROPELLED OR PERMANENTLY TOWABLE BY A LIGHT DUTY TRUCK, AND DESIGNED PRIMARILY

NOT FOR USE AS A PERMANENT DWELLING, BUT AS TEMPORARY LIVING QUARTERS FOR RECREATIONAL, CAMPING, TRAVEL, OR SEASONAL USE.

(AX) *REPETITIVE LOSS STRUCTURE:* MEANS A STRUCTURE COVERED UNDER AN NFIP FLOOD INSURANCE POLICY THAT:

(1) HAS INCURRED *FLOOD*-RELATED DAMAGE ON 2 OR MORE OCCASIONS WITHIN ANY ROLLING 10-YEAR PERIOD, IN WHICH THE COST OF REPAIRS AT THE TIME OF EACH SUCH FLOOD EVENT, ON AVERAGE, EQUALED OR EXCEEDED 25% OF THE VALUE OF THE STRUCTURE BEFORE THE DAMAGE OCCURRED; AND

(2) AT THE TIME OF THE SECOND INCIDENCE OF *FLOOD* RELATED DAMAGE, THE CONTRACT FOR *FLOOD* INSURANCE CONTAINS INCREASED COST OF COMPLIANCE COVERAGE.

(AY) *SEVERE REPETITIVE LOSS STRUCTURE:* MEANS A STRUCTURE THAT IS COVERED UNDER AN NFIP *FLOOD* INSURANCE POLICY AND HAS INCURRED *FLOOD*-RELATED DAMAGE:

(1) FOR WHICH 4 OR MORE SEPARATE CLAIMS PAYMENTS HAVE BEEN MADE UNDER *FLOOD* INSURANCE COVERAGE, WITH THE AMOUNT OF EACH CLAIM (INCLUDING BUILDING AND CONTENTS PAYMENTS) EXCEEDING $5,000, AND WITH THE CUMULATIVE AMOUNT OF SUCH CLAIMS PAYMENTS EXCEEDING $20,000; OR

(2) FOR WHICH AT LEAST 2 SEPARATE *FLOOD* INSURANCE CLAIMS PAYMENTS (BUILDING PAYMENTS ONLY) HAVE BEEN MADE, WITH THE CUMULATIVE AMOUNT OF SUCH CLAIMS EXCEEDING THE VALUE OF THE INSURED STRUCTURE.

(AZ) *SPECIAL FLOOD HAZARD AREA (SFHA):* THE LAND IN THE FLOODPLAIN SUBJECT TO A ONE-PERCENT OR GREATER CHANCE OF FLOODING IN ANY GIVEN YEAR. IN HOWARD COUNTY, MARYLAND, SPECIAL FLOOD HAZARD AREAS INCLUDE FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS. FEMA SPECIAL FLOOD HAZARD AREAS ARE DESIGNATED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY IN *FLOOD INSURANCE STUDIES* AND ON *FLOOD INSURANCE RATE MAPS* AS ZONES A, AE, AH, AO, A130, AND A99, AND ZONES VE AND V1-30. COMMUNITY SPECIAL FLOOD HAZARD AREAS ARE DESIGNED BY HOWARD COUNTY AS 1) FEMA SHADED X ZONES FOR 100-YEAR FLOODPLAINS WITH DRAINAGE AREAS LESS THAN 1 SQUARE-MILE DESIGNED BY FEMA IN *FLOOD INSURANCE STUDIES* AND ON *FLOOD INSURANCE RATE MAPS*, AND 2) AREAS SHOWN ON OTHER FLOOD MAPS THAT ARE IDENTIFIED IN SECTION 16.700(E) OF THIS SUBTITLE INCLUDING HOWARD COUNTY 30-ACRE 100-YEAR FLOODPLAINS.

(BA) *START OF CONSTRUCTION*: THE DATE THE BUILDING PERMIT WAS ISSUED, PROVIDED THE ACTUAL START OF CONSTRUCTION, REPAIR, RECONSTRUCTION, REHABILITATION, ADDITION PLACEMENT, OR OTHER IMPROVEMENT WAS WITHIN 180 DAYS OF THE PERMIT DATE. THE ACTUAL START MEANS EITHER THE FIRST PLACEMENT OF PERMANENT CONSTRUCTION OF A STRUCTURE ON A SITE, SUCH AS THE POURING OF SLAB OR FOOTINGS, THE INSTALLATION OF PILES, THE CONSTRUCTION OF COLUMNS, OR ANY WORK BEYOND THE STAGE OF EXCAVATION; OR THE PLACEMENT OF A MANUFACTURED HOME ON A FOUNDATION. PERMANENT CONSTRUCTION DOES NOT INCLUDE LAND PREPARATION, SUCH AS CLEARING, GRADING AND FILLING; NOR DOES IT INCLUDE THE INSTALLATION OF STREETS 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 STRUCTURES, SUCH AS GARAGES OR SHEDS NOT OCCUPIED AS DWELLING UNITS OR NOT PART OF THE MAIN STRUCTURE. FOR SUBSTANTIAL IMPROVEMENTS, THE ACTUAL START OF CONSTRUCTION MEANS THE FIRST ALTERATION OF ANY WALL, CEILING, FLOOR, OR OTHER STRUCTURAL PART OF A BUILDING, WHETHER OR NOT THAT ALTERATION AFFECTS THE EXTERNAL DIMENSIONS OF THE BUILDING.

(BB) *STRUCTURE:* THAT WHICH IS BUILT OR CONSTRUCTED; SPECIFICALLY, A WALLED AND ROOFED BUILDING, INCLUDING A GAS OR LIQUID STORAGE TANK THAT IS PRINCIPALLY ABOVE GROUND, AS WELL AS A MANUFACTURED HOME AND ACCESSORY STRUCTURES.

(BC) *SUBSTANTIAL DAMAGE*: DAMAGE OF ANY ORIGIN SUSTAINED BY A BUILDING OR STRUCTURE WHEREBY THE COST OF RESTORING THE BUILDING OR STRUCTURE TO ITS BEFORE DAMAGED CONDITION WOULD EQUAL OR EXCEED 50 PERCENT OF THE MARKET VALUE OF THE BUILDING OR STRUCTURE BEFORE THE DAMAGE OCCURRED. ALSO USED AS "SUBSTANTIALLY DAMAGED" STRUCTURES. REPETITIVE LOSS STRUCTURES THAT ARE REPETITIVELY DAMAGED, EXPERIENCING 2 FLOOD EVENTS IN 10 YEARS WHERE REPAIRS AVERAGED 25% OR MORE OF THE MARKET VALUE, ARE CONSIDERED SUBSTANTIALLY DAMAGED. [NOTE: SEE "SUBSTANTIAL IMPROVEMENT/SUBSTANTIAL DAMAGE DESK REFERENCE" (FEMA P-758).]

(BD) *SUBSTANTIAL IMPROVEMENT*: ANY RECONSTRUCTION, REHABILITATION, ADDITION, OR OTHER IMPROVEMENT OF A BUILDING OR STRUCTURE TAKING PLACE DURING A PERIOD OF 5 CONSECUTIVE YEARS, THE CUMULATIVE, THE COST OF WHICH EQUALS OR EXCEEDS 50 PERCENT OF THE MARKET VALUE OF THE BUILDING OR STRUCTURE BEFORE THE START OF CONSTRUCTION

OF THE IMPROVEMENT. THE TERM INCLUDES STRUCTURES WHICH HAVE INCURRED REPETITIVE LOSS OR SUBSTANTIAL DAMAGE, REGARDLESS OF THE ACTUAL REPAIR WORK PERFORMED. THE TERM DOES NOT, HOWEVER, INCLUDE EITHER:

(1) ANY PROJECT FOR IMPROVEMENT OF A BUILDING OR 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 PRIOR TO SUBMISSION OF AN APPLICATION FOR A PERMIT AND WHICH ARE THE MINIMUM NECESSARY TO ASSURE SAFE LIVING CONDITIONS; OR

(2) ANY ALTERATION OF A HISTORIC STRUCTURE, PROVIDED THAT THE ALTERATION WILL NOT PRECLUDE THE STRUCTURE'S CONTINUED DESIGNATION AS A HISTORIC STRUCTURE.

[NOTE: SEE "SUBSTANTIAL IMPROVEMENT/SUBSTANTIAL DAMAGE DESK REFERENCE" (FEMA P-758).]

(BE) *TEMPORARY STRUCTURE*: A STRUCTURE INSTALLED, USED, OR ERECTED FOR A PERIOD OF LESS THAN 180 DAYS.

(BF) *VARIANCE*: A GRANT OF RELIEF FROM THE STRICT APPLICATION OF ONE OR MORE REQUIREMENTS OF THESE REGULATIONS. IN HOWARD COUNTY, MARYLAND, A VARIANCE OF THE FLOODPLAIN REGULATIONS IS KNOWN AS AN ALTERNATIVE COMPLIANCE.

(BG) *VIOLATION*: ANY CONSTRUCTION OR DEVELOPMENT IN A SPECIAL FLOOD HAZARD AREA THAT IS BEING PERFORMED WITHOUT AN ISSUED PERMIT. THE FAILURE OF A BUILDING, STRUCTURE, OR OTHER DEVELOPMENT FOR WHICH A PERMIT IS ISSUED TO BE FULLY COMPLIANT WITH THESE REGULATIONS AND THE CONDITIONS OF THE ISSUED PERMIT. A BUILDING, STRUCTURE, OR OTHER DEVELOPMENT WITHOUT THE REQUIRED DESIGN CERTIFICATIONS, THE ELEVATION CERTIFICATE, OR OTHER EVIDENCE OF COMPLIANCE REQUIRED IS PRESUMED TO BE A VIOLATION UNTIL SUCH TIME AS THE REQUIRED DOCUMENTATION IS PROVIDED.

(BH) *WATERCOURSE*: THE CHANNEL, INCLUDING CHANNEL BANKS AND BED, OF NONTIDAL WATERS OF THE STATE.

(BI) *WATERS OF THE STATE*: [SEE ENVIRONMENT ARTICLE, TITLE 5, SUBTITLE 1, ANNOTATED CODE OF MARYLAND.] WATERS OF THE STATE INCLUDE:

(1) BOTH SURFACE AND UNDERGROUND WATERS WITHIN THE BOUNDARIES OF THE STATE SUBJECT TO ITS JURISDICTION;

(2) THAT PORTION OF THE ATLANTIC OCEAN WITHIN THE BOUNDARIES OF THE STATE;

(3) THE CHESAPEAKE BAY AND ITS TRIBUTARIES;

(4) ALL PONDS, LAKES, RIVERS, STREAMS, PUBLIC DITCHES, TAX DITCHES, AND PUBLIC DRAINAGE SYSTEMS WITHIN THE STATE, OTHER THAN THOSE DESIGNED AND USED TO COLLECT, CONVEY, OR DISPOSE OF SANITARY SEWAGE; AND

(5) THE FLOODPLAIN OF FREE-FLOWING WATERS DETERMINED BY MDE ON THE BASIS OF THE 100-YEAR FLOOD FREQUENCY.

**SECTION 16.702. ADMINISTRATION.**

(A) *DESIGNATION OF THE FLOODPLAIN ADMINISTRATOR.* THE DIRECTOR OF THE DEPARTMENT OF PUBLIC WORKS IS HEREBY APPOINTED TO ADMINISTER AND IMPLEMENT THESE REGULATIONS AND IS REFERRED TO HEREIN AS THE FLOODPLAIN ADMINISTRATOR. THE FLOODPLAIN ADMINISTRATOR MAY:

(1) DELEGATE DUTIES AND RESPONSIBILITIES SET FORTH IN THESE REGULATIONS TO QUALIFIED TECHNICAL PERSONNEL, PLAN EXAMINERS, INSPECTORS, AND OTHER EMPLOYEES IN THE DEPARTMENT OF PLANNING AND ZONING, DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, AND THE DEPARTMENT OF PUBLIC WORKS.

(2) ENTER INTO A WRITTEN AGREEMENT OR WRITTEN CONTRACT WITH ANOTHER MARYLAND COMMUNITY OR PRIVATE SECTOR ENTITY TO ADMINISTER SPECIFIC PROVISIONS OF THESE REGULATIONS. ADMINISTRATION OF ANY PART OF THESE REGULATIONS BY ANOTHER ENTITY SHALL NOT RELIEVE THE COMMUNITY OF ITS RESPONSIBILITIES PURSUANT TO THE PARTICIPATION REQUIREMENTS OF THE NATIONAL FLOOD INSURANCE PROGRAM AS SET FORTH IN THE CODE OF FEDERAL REGULATIONS (CFR) AT 44 CFR SECTION 59.22.

(B) *DUTIES AND RESPONSIBILITIES OF THE FLOODPLAIN ADMINISTRATOR.* ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR; DUTIES OF THE DEPARTMENT OF PLANNING AND ZONING, THE DEPARTMENT OF PUBLIC WORKS AND THE DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS SHALL INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:

(1) DEPARTMENT OF PLANNING AND ZONING AND DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS: REVIEW APPLICATIONS FOR PERMITS TO DETERMINE WHETHER PROPOSED ACTIVITIES WILL BE LOCATED IN FLOOD HAZARD AREAS.

(2) DEPARTMENT OF PLANNING AND ZONING AND DEPARTMENT OF PUBLIC WORKS: INTERPRET FLOODPLAIN BOUNDARIES AND PROVIDE AVAILABLE BASE FLOOD ELEVATION AND FLOOD HAZARD INFORMATION.

(3) DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS: REVIEW APPLICATIONS TO DETERMINE WHETHER PROPOSED ACTIVITIES WILL BE REASONABLY SAFE FROM FLOODING AND REQUIRE NEW CONSTRUCTION AND SUBSTANTIAL IMPROVEMENTS TO MEET THE REQUIREMENTS OF THESE REGULATIONS.

(4) DEPARTMENT OF PLANNING AND ZONING, DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, AND DEPARTMENT OF PUBLIC WORKS: 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 MDE 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 NONTIDAL WATERS OF THE STATE.

(5) DEPARTMENT OF PLANNING AND ZONING AND DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS: VERIFY THAT APPLICANTS PROPOSING AN ALTERATION OF A WATERCOURSE HAVE NOTIFIED ADJACENT COMMUNITIES AND MDE (NFIP STATE COORDINATOR);

(6) DEPARTMENT OF PUBLIC WORKS: AND VERIFY THAT APPLICANTS PROPOSING AN ALTERATION OF A WATERCOURSE HAVE SUBMITTED COPIES OF SUCH NOTIFICATIONS TO FEMA.

(7) DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS: 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.

(8) DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS: 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.

(9) DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS AND DEPARTMENT OF PUBLIC WORKS: REVIEW ELEVATION CERTIFICATES AND REQUIRE INCOMPLETE OR DEFICIENT CERTIFICATES TO BE CORRECTED.

(10) DEPARTMENT OF PUBLIC WORKS: SUBMIT TO FEMA, OR REQUIRE APPLICANTS TO SUBMIT TO FEMA, DATA AND INFORMATION NECESSARY TO MAINTAIN FIRMS, INCLUDING HYDROLOGIC AND HYDRAULIC ENGINEERING ANALYSES PREPARED BY OR FOR HOWARD COUNTY, MARYLAND, WITHIN SIX MONTHS AFTER SUCH DATA AND INFORMATION BECOMES AVAILABLE IF THE ANALYSES INDICATE CHANGES IN BASE FLOOD ELEVATIONS OR BOUNDARIES.

(11) MAINTAIN AND PERMANENTLY KEEP RECORDS THAT ARE NECESSARY FOR THE ADMINISTRATION OF THESE REGULATIONS, INCLUDING:

(I) DEPARTMENT OF PUBLIC WORKS: DOCUMENTATION, DATA, AND MAPPING FOR HOWARD COUNTY FLOODPLAINS, FLOOD INSURANCE STUDIES, FLOOD INSURANCE RATE MAPS (INCLUDING HISTORIC STUDIES AND MAPS AND CURRENT EFFECTIVE STUDIES AND MAPS) AND LETTERS OF MAP CHANGE; AND

(II) DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS: 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, OTHER REQUIRED DESIGN CERTIFICATIONS, ALTERNATIVE COMPLIANCES, AND RECORDS OF ENFORCEMENT ACTIONS TAKEN TO CORRECT VIOLATIONS OF THESE REGULATIONS.

(12) DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS: ENFORCE THE PROVISIONS OF THESE REGULATIONS, INVESTIGATE VIOLATIONS, ISSUE NOTICES OF VIOLATIONS OR STOP WORK ORDERS, AND REQUIRE PERMIT HOLDERS TO TAKE CORRECTIVE ACTION.

(13) DEPARTMENT OF PLANNING AND ZONING, DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, AND DEPARTMENT OF PUBLIC WORKS: REVIEW EACH APPLICATION FOR AN ALTERNATIVE COMPLIANCE AND PREPARE A STAFF REPORT AND RECOMMENDATION AS APPLICABLE.

(14) DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS: ADMINISTER THE REQUIREMENTS RELATED TO PROPOSED WORK ON EXISTING BUILDINGS:

(I) 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.

(II) MAKE REASONABLE EFFORTS TO NOTIFY OWNERS OF SUBSTANTIALLY DAMAGED STRUCTURES OF THE NEED TO OBTAIN A PERMIT TO REPAIR, REHABILITATE, OR RECONSTRUCT, AND PROHIBIT THE NON-COMPLIANT REPAIR OF SUBSTANTIALLY DAMAGED BUILDINGS EXCEPT FOR TEMPORARY EMERGENCY PROTECTIVE MEASURES NECESSARY TO SECURE A PROPERTY OR STABILIZE A BUILDING OR STRUCTURE TO PREVENT ADDITIONAL DAMAGE.

(15) DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS: UNDERTAKE, AS DETERMINED APPROPRIATE BY THE FLOODPLAIN ADMINISTRATOR DUE TO THE CIRCUMSTANCES, OTHER ACTIONS WHICH MAY INCLUDE BUT ARE NOT LIMITED TO: ISSUING PRESS RELEASES, PUBLIC SERVICE ANNOUNCEMENTS, AND OTHER PUBLIC INFORMATION MATERIALS RELATED TO PERMIT REQUESTS AND REPAIR OF DAMAGED STRUCTURES; COORDINATING WITH OTHER FEDERAL, STATE, AND LOCAL AGENCIES TO ASSIST WITH SUBSTANTIAL DAMAGE DETERMINATIONS; PROVIDING OWNERS OF DAMAGED STRUCTURES INFORMATION RELATED TO THE PROPER REPAIR OF DAMAGED STRUCTURES IN SPECIAL FLOOD HAZARD AREAS; AND ASSISTING PROPERTY OWNERS WITH DOCUMENTATION NECESSARY TO FILE CLAIMS FOR INCREASED COST OF COMPLIANCE (ICC) COVERAGE UNDER NFIP FLOOD INSURANCE POLICIES.

(16) DEPARTMENT OF PUBLIC WORKS: NOTIFY THE FEDERAL EMERGENCY MANAGEMENT AGENCY WHEN THE CORPORATE BOUNDARIES OF HOWARD COUNTY, MARYLAND, HAVE BEEN MODIFIED AND:

(I) PROVIDE A MAP THAT CLEARLY DELINEATES THE NEW CORPORATE BOUNDARIES OR THE NEW AREA FOR WHICH THE AUTHORITY TO REGULATE PURSUANT TO THESE REGULATIONS HAS EITHER BEEN ASSUMED OR RELINQUISHED THROUGH ANNEXATION; AND

(II) IF THE FIRM FOR ANY ANNEXED AREA INCLUDES SPECIAL FLOOD HAZARD AREAS THAT HAVE FLOOD ZONES THAT HAVE REGULATORY REQUIREMENTS THAT ARE NOT SET FORTH IN THESE REGULATIONS, PREPARE AMENDMENTS TO THESE REGULATIONS TO ADOPT THE FIRM AND APPROPRIATE REQUIREMENTS, AND SUBMIT THE AMENDMENTS

TO THE GOVERNING BODY FOR ADOPTION; SUCH ADOPTION SHALL TAKE PLACE WITHIN SIX MONTHS OF THE DATE OF ANNEXATION AND A COPY OF THE AMENDED REGULATIONS SHALL BE PROVIDED TO MDE (NFIP STATE COORDINATOR) AND FEMA.

(17) DEPARTMENT OF PUBLIC WORKS: UPON THE REQUEST OF FEMA, COMPLETE AND SUBMIT A REPORT CONCERNING PARTICIPATION IN THE NFIP WHICH MAY REQUEST INFORMATION REGARDING THE NUMBER OF BUILDINGS IN THE SFHA, NUMBER OF PERMITS ISSUED FOR DEVELOPMENT IN THE SFHA, AND NUMBER OF ALTERNATIVE COMPLIANCES ISSUED FOR DEVELOPMENT IN THE SFHA.

(C) *USE AND INTERPRETATION OF FIRMS AND HOWARD COUNTY FLOODPLAINS.* ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR, THE DEPARTMENT OF PUBLIC WORKS, THE DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS AND DEPARTMENT OF PLANNING AND ZONING, AS APPLICABLE, SHALL MAKE INTERPRETATIONS, WHERE NEEDED, AS TO THE EXACT LOCATION OF SPECIAL FLOOD HAZARD AREAS, FLOODPLAIN BOUNDARIES, AND FLOODWAY BOUNDARIES. THE FOLLOWING SHALL APPLY TO THE USE AND INTERPRETATION OF FIRMS AND THEIR DATA AND HOWARD COUNTY FLOODPLAINS AND THEIR DATA:

(1) WHERE FIELD SURVEYED TOPOGRAPHY INDICATES THAT GROUND ELEVATIONS:

(I) ARE BELOW THE BASE FLOOD ELEVATION, EVEN IN AREAS NOT DELINEATED AS A SPECIAL FLOOD HAZARD AREA ON A FIRM OR HOWARD COUNTY FLOODPLAIN, THE AREA SHALL BE CONSIDERED AS SPECIAL FLOOD HAZARD AREA AND SUBJECT TO THE REQUIREMENTS OF THESE REGULATIONS;

(II) ARE ABOVE THE BASE FLOOD ELEVATION, THE AREA SHALL BE REGULATED AS SPECIAL FLOOD HAZARD AREA UNLESS THE APPLICANT OBTAINS A LETTER OF MAP CHANGE THAT REMOVES THE AREA FROM THE SPECIAL FLOOD HAZARD AREA.

(2) IN FEMA-IDENTIFIED SPECIAL FLOOD HAZARD AREAS WHERE BASE FLOOD ELEVATION AND FLOODWAY DATA HAVE NOT BEEN IDENTIFIED AND IN AREAS WHERE FEMA HAS NOT IDENTIFIED SPECIAL FLOOD HAZARD AREAS, ANY OTHER FLOOD HAZARD DATA AVAILABLE FROM A FEDERAL, STATE, OR OTHER SOURCE, INCLUDING HOWARD COUNTY FLOODPLAINS, SHALL BE REVIEWED AND REASONABLY USED.

(3) BASE FLOOD ELEVATIONS AND DESIGNATED FLOODWAY BOUNDARIES ON FIRMS AND IN FISS, OR ON HOWARD COUNTY FLOODPLAINS, 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.

(4) 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, OR ON HOWARD COUNTY FLOODPLAINS.

(5) IF A PRELIMINARY FLOOD INSURANCE RATE MAP AND/OR A PRELIMINARY FLOOD INSURANCE STUDY HAS BEEN PROVIDED BY FEMA:

(I) UPON THE ISSUANCE OF A LETTER OF FINAL DETERMINATION BY FEMA, IF THE PRELIMINARY FLOOD HAZARD DATA IS MORE RESTRICTIVE THAN THE EFFECTIVE DATA, IT SHALL BE USED AND SHALL REPLACE THE FLOOD HAZARD DATA PREVIOUSLY PROVIDED FROM FEMA FOR THE PURPOSES OF ADMINISTERING THESE REGULATIONS.

(II) PRIOR TO THE ISSUANCE OF A LETTER OF FINAL DETERMINATION BY FEMA, THE USE OF PRELIMINARY FLOOD HAZARD DATA SHALL BE DEEMED THE BEST AVAILABLE DATA PURSUANT TO SECTION 16.700(E)(3) OF THIS SUBTITLE AND USED WHERE NO BASE FLOOD ELEVATIONS AND/OR FLOODWAY AREAS ARE PROVIDED ON THE EFFECTIVE FIRM.

(III) PRIOR TO ISSUANCE OF A LETTER OF FINAL DETERMINATION BY FEMA, THE USE OF PRELIMINARY FLOOD HAZARD DATA IS PERMITTED WHERE THE PRELIMINARY BASE FLOOD ELEVATIONS, FLOODPLAIN OR FLOODWAY BOUNDARIES EXCEED THE BASE FLOOD ELEVATIONS AND/OR DESIGNATED FLOODWAY WIDTHS IN EXISTING FLOOD HAZARD DATA PROVIDED BY FEMA. SUCH PRELIMINARY DATA MAY BE SUBJECT TO CHANGE AND/OR APPEAL TO FEMA.

(D) *PERMITS REQUIRED AND EXPIRATION.*

(1) IT SHALL BE UNLAWFUL FOR ANY PERSON TO BEGIN ANY DEVELOPMENT OR CONSTRUCTION WHICH IS WHOLLY WITHIN, PARTIALLY WITHIN, OR IN CONTACT WITH ANY FLOOD HAZARD AREA ESTABLISHED IN SECTION 16.700(E), OF THIS SUBTITLE INCLUDING BUT NOT LIMITED TO: FILLING; GRADING; CONSTRUCTION OF NEW STRUCTURES; THE SUBSTANTIAL IMPROVEMENT OF BUILDINGS OR STRUCTURES, INCLUDING REPAIR OF SUBSTANTIAL DAMAGE; PLACEMENT OR REPLACEMENT OF MANUFACTURED HOMES, INCLUDING SUBSTANTIAL IMPROVEMENT OR REPAIR OF SUBSTANTIAL DAMAGE OF MANUFACTURED HOMES; ERECTING OR INSTALLING A TEMPORARY STRUCTURE, OR ALTERATION OF A

WATERCOURSE, UNTIL ALL REQUIRED PERMITS ARE OBTAINED FROM THE HOWARD COUNTY, MARYLAND, DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS. NO SUCH PERMIT SHALL BE ISSUED UNTIL THE REQUIREMENTS OF THESE REGULATIONS HAVE BEEN MET.

(2) IN ADDITION TO THE PERMITS REQUIRED IN PARAGRAPH (1), APPLICANTS FOR PERMITS IN NONTIDAL WATERS OF THE STATE ARE ADVISED TO CONTACT MDE. UNLESS WAIVED BY MDE, PURSUANT TO CODE OF MARYLAND REGULATIONS 26.17.04, CONSTRUCTION ON NONTIDAL WATERS AND FLOODPLAINS, MDE REGULATES THE "100-YEAR FREQUENCY FLOODPLAIN OF FREE-FLOWING WATERS," ALSO REFERRED TO AS NONTIDAL WATERS OF THE STATE. TO DETERMINE THE 100-YEAR FREQUENCY FLOODPLAIN, HYDROLOGIC CALCULATIONS ARE BASED ON THE ULTIMATE DEVELOPMENT OF THE WATERSHED, ASSUMING EXISTING ZONING. THE RESULTING FLOOD HAZARD AREAS DELINEATED USING THE RESULTS OF SUCH CALCULATIONS MAY BE DIFFERENT THAN THE SPECIAL FLOOD HAZARD AREAS ESTABLISHED IN SECTION 16.700(E) OF THESE REGULATIONS. A PERMIT FROM HOWARD COUNTY, MARYLAND, DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS IS STILL REQUIRED IN ADDITION TO ANY STATE REQUIREMENTS.

(3) A PERMIT IS VALID PROVIDED THE ACTUAL START OF WORK IS WITHIN 180 DAYS OF THE DATE OF PERMIT ISSUANCE. REQUESTS FOR EXTENSIONS SHALL BE SUBMITTED IN WRITING AND JUSTIFIABLE CAUSE DEMONSTRATED. ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR, THE DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS MAY GRANT, IN WRITING, ONE OR MORE EXTENSIONS OF TIME, FOR ADDITIONAL PERIODS NOT EXCEEDING 90 DAYS EACH AND PROVIDED THERE HAS BEEN NO AMENDMENT OR REVISION TO THE BASIS FOR ESTABLISHING SPECIAL FLOOD HAZARD AREAS AND BFES SET FORTH IN SECTION 16.700(E).

(E) *APPLICATION REQUIRED.* THE GENERAL REQUIREMENTS OF THIS SUBTITLE AND THE HOWARD COUNTY BUILDING CODE APPLY TO ALL DEVELOPMENT PROPOSED WITHIN ALL SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, IDENTIFIED IN SECTION 16.700(E) OF THIS SUBTITLE. APPLICATION FOR A PERMIT SHALL BE MADE BY THE OWNER OF THE PROPERTY OR THE OWNER'S AUTHORIZED AGENT (HEREIN REFERRED TO AS THE APPLICANT) PRIOR TO THE START OF ANY WORK. THE APPLICATION SHALL BE ON A FORM FURNISHED BY THE DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS FOR THAT PURPOSE.

(1) *APPLICATION CONTENTS.* AT A MINIMUM, APPLICATIONS SHALL INCLUDE:

(I) SITE PLANS DRAWN TO SCALE SHOWING THE NATURE, LOCATION, DIMENSIONS, AND EXISTING AND PROPOSED TOPOGRAPHY OF THE AREA IN QUESTION, AND THE LOCATION OF EXISTING AND PROPOSED STRUCTURES, EXCAVATION, FILLING, STORAGE OF MATERIALS, DRAINAGE FACILITIES, AND OTHER PROPOSED ACTIVITIES.

(II) ELEVATION OF THE EXISTING NATURAL GROUND WHERE BUILDINGS OR STRUCTURES ARE PROPOSED, REFERENCED TO THE DATUM ON THE FIRM.

(III) DELINEATION OF FLOOD HAZARD AREAS, DESIGNATED FLOODWAY BOUNDARIES, FLOOD ZONES, BASE FLOOD ELEVATIONS, AND FLOOD PROTECTION SETBACKS. BASE FLOOD ELEVATIONS SHALL BE USED TO DELINEATE THE BOUNDARY OF FLOOD HAZARD AREAS ON SURVEYED TOPOGRAPHY AND SUCH DELINEATIONS SHALL PREVAIL OVER THE BOUNDARY OF SFHAS SHOWN ON FIRMS OR HOWARD COUNTY FLOODPLAINS.

(IV) WHERE FLOODWAYS ARE NOT DELINEATED OR BASE FLOOD ELEVATIONS ARE NOT SHOWN ON THE FIRMS OR HOWARD COUNTY FLOODPLAINS, THE DEPARTMENT OF PLANNING AND ZONING ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR HAS THE AUTHORITY TO REQUIRE THE APPLICANT TO USE INFORMATION PROVIDED BY THE DEPARTMENT OF PLANNING AND ZONING ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR, INFORMATION THAT IS AVAILABLE FROM FEDERAL, STATE, OR OTHER SOURCES, OR TO DETERMINE SUCH INFORMATION USING ACCEPTED ENGINEERING PRACTICES OR METHODS APPROVED BY THE FLOODPLAIN ADMINISTRATOR. [NOTE: SEE "MANAGING FLOODPLAIN DEVELOPMENT IN APPROXIMATE ZONE A AREAS: A GUIDE FOR OBTAINING AND DEVELOPING BASE (100-YEAR) FLOOD ELEVATIONS" (FEMA 265).]

(V) DETERMINATION OF THE BASE FLOOD ELEVATIONS, FOR DEVELOPMENT PROPOSALS AND SUBDIVISION PROPOSALS, EACH WITH AT LEAST 5 LOTS OR AT LEAST 5 ACRES, WHICHEVER IS THE LESSER, IN SPECIAL FLOOD HAZARD AREAS WHERE BASE FLOOD ELEVATIONS ARE NOT SHOWN ON THE FIRM OR HOWARD COUNTY FLOODPLAINS; IF HYDROLOGIC AND HYDRAULIC ENGINEERING ANALYSES ARE SUBMITTED, SUCH ANALYSES SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF MDE AND FEMA.

(VI) HYDROLOGIC AND HYDRAULIC ENGINEERING ANALYSES FOR PROPOSALS IN SPECIAL FLOOD HAZARD AREAS WHERE FEMA HAS PROVIDED BASE FLOOD ELEVATIONS BUT HAS NOT DELINEATED A FLOODWAY; SUCH ANALYSES SHALL DEMONSTRATE THAT THE CUMULATIVE EFFECT OF PROPOSED DEVELOPMENT, WHEN COMBINED WITH ALL OTHER EXISTING AND ANTICIPATED DEVELOPMENT WILL NOT INCREASE THE WATER SURFACE ELEVATION OF THE BASE FLOOD BY MORE THAN 0.00 FOOT.

(VII) FOR ENCROACHMENTS IN FLOODWAYS, AN EVALUATION OF ALTERNATIVES TO SUCH ENCROACHMENTS, INCLUDING DIFFERENT USES OF THE SITE OR PORTION OF THE SITE WITHIN THE FLOODWAY, AND MINIMIZATION OF SUCH ENCROACHMENT.

(VIII) IF FILL IS PROPOSED TO BE PLACED FOR A PURPOSE OTHER THAN TO ELEVATE STRUCTURES, THE APPLICANT SHALL INDICATE THE INTENDED PURPOSE FOR THE FILL.

(IX) FOR PROPOSED BUILDINGS AND STRUCTURES, INCLUDING SUBSTANTIAL IMPROVEMENT AND REPAIR OF SUBSTANTIAL DAMAGE, AND PLACEMENT AND REPLACEMENT OF MANUFACTURED HOMES, INCLUDING SUBSTANTIAL IMPROVEMENT AND REPAIR OF SUBSTANTIAL DAMAGE:

A. THE PROPOSED ELEVATION OF THE LOWEST FLOOR, INCLUDING BASEMENT, REFERENCED TO THE DATUM ON THE FIRM AND A SIGNED AGREEMENT TO SUBMIT AN ELEVATION CERTIFICATE.

B. THE SIGNED DECLARATION OF LAND RESTRICTION (NONCONVERSION AGREEMENT) THAT SHALL BE RECORDED ON THE PROPERTY DEED PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY, IF THE APPLICATION INCLUDES AN ENCLOSURE BELOW THE LOWEST FLOOR OR A CRAWL/UNDERFLOOR SPACE THAT IS MORE THAN FOUR (4) FEET IN HEIGHT.

C. A WRITTEN EVALUATION OF ALTERNATIVE METHODS CONSIDERED TO ELEVATE STRUCTURES AND MANUFACTURED HOMES, IF THE LOCATION IS IN NONTIDAL WATERS OF THE STATE AND FILL IS PROPOSED TO ACHIEVE THE ELEVATION REQUIRED IN SECTION 16.704(D)(1) OR SECTION 16.704(E)(1) OF THIS SUBTITLE.

(X) FOR ACCESSORY STRUCTURES THAT ARE 300 SQUARE FEET OR LARGER IN AREA (FOOTPRINT) BUT NO LARGER THAN 600 SQUARE FEET IN AREA (FOOTPRINT) AND THAT ARE BELOW THE BASE FLOOD ELEVATION, AN ALTERNATIVE COMPLIANCE IS REQUIRED AS SET FORTH IN SECTION 16.706 OF THIS SUBTITLE. IF AN ALTERNATIVE COMPLIANCE

IS GRANTED, A SIGNED DECLARATION OF LAND RESTRICTION (NONCONVERSION AGREEMENT) SHALL BE RECORDED ON THE PROPERTY DEED PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.

(XI) FOR TEMPORARY STRUCTURES AND TEMPORARY STORAGE, SPECIFICATION OF THE DURATION OF THE TEMPORARY USE.

(XII) FOR PROPOSED WORK ON EXISTING BUILDINGS, STRUCTURES, AND MANUFACTURED HOMES, INCLUDING ANY IMPROVEMENT, ADDITION, REPAIRS, ALTERATIONS, REHABILITATION, OR RECONSTRUCTION, SUFFICIENT INFORMATION TO DETERMINE IF THE WORK CONSTITUTES SUBSTANTIAL IMPROVEMENT OR REPAIR OF SUBSTANTIAL DAMAGE, INCLUDING BUT NOT LIMITED TO:

A. IF THE EXISTING BUILDING OR STRUCTURE WAS CONSTRUCTED AFTER MARCH 15, 1977, EVIDENCE THAT THE WORK WILL NOT ALTER ANY ASPECT OF THE BUILDING OR STRUCTURE THAT WAS REQUIRED FOR COMPLIANCE WITH THE FLOODPLAIN MANAGEMENT REQUIREMENTS IN EFFECT AT THE TIME THE BUILDING OR STRUCTURE WAS PERMITTED.

B. IF THE PROPOSED WORK IS A HORIZONTAL ADDITION, A DESCRIPTION OF THE ADDITION AND WHETHER IT WILL BE INDEPENDENTLY SUPPORTED OR STRUCTURALLY CONNECTED TO THE BASE BUILDING AND THE NATURE OF ALL OTHER MODIFICATIONS TO THE BASE BUILDING, IF ANY.

C. DOCUMENTATION OF THE MARKET VALUE OF THE BUILDING OR STRUCTURE BEFORE THE IMPROVEMENT OR, IF THE WORK IS REPAIR OF DAMAGE, BEFORE THE DAMAGE OCCURRED.

D. DOCUMENTATION OF THE ACTUAL CASH VALUE OF ALL PROPOSED WORK, INCLUDING THE ACTUAL CASH VALUE OF ALL WORK NECESSARY TO REPAIR AND RESTORE DAMAGE TO THE BEFORE-DAMAGED CONDITION, REGARDLESS OF THE AMOUNT OF WORK THAT WILL BE PERFORMED. THE VALUE OF WORK PERFORMED BY THE OWNER OR VOLUNTEERS SHALL BE VALUED AT MARKET LABOR RATES; THE VALUE OF DONATED OR DISCOUNTED MATERIALS SHALL BE VALUED AT MARKET RATES.

(XIII) CERTIFICATIONS AND/OR TECHNICAL ANALYSES PREPARED OR CONDUCTED BY A LICENSED PROFESSIONAL ENGINEER OR LICENSED ARCHITECT, AS APPROPRIATE, INCLUDING:

A. THE DETERMINATION OF THE BASE FLOOD ELEVATIONS OR HYDROLOGIC AND HYDRAULIC ENGINEERING ANALYSES PREPARED BY A LICENSED PROFESSIONAL ENGINEER THAT ARE REQUIRED BY THE FLOODPLAIN ADMINISTRATOR OR ARE REQUIRED BY THESE REGULATIONS IN: SECTION 16.703(B) FOR CERTAIN SUBDIVISIONS AND DEVELOPMENT; SECTION 16.704(C)(1)FOR DEVELOPMENT IN DESIGNATED FLOODWAYS; SECTION 16.704(C)(2)FOR DEVELOPMENT IN FLOOD HAZARD AREAS WITH BASE FLOOD ELEVATIONS BUT NO DESIGNATED FLOODWAYS; AND SECTION 16.704(C)(4) FOR DELIBERATE ALTERATION OR RELOCATION OF WATERCOURSES.

B. THE FLOODPROOFING CERTIFICATE FOR NONRESIDENTIAL STRUCTURES THAT ARE FLOODPROOFED AS REQUIRED IN SECTION 16.704(E)(2).

C. CERTIFICATION THAT ENGINEERED FLOOD OPENINGS ARE DESIGNED TO MEET THE MINIMUM REQUIREMENTS OF SECTION 16.704(D)(3)(III) TO AUTOMATICALLY EQUALIZE HYDROSTATIC FLOOD FORCES.

(XIV) FOR NONRESIDENTIAL STRUCTURES THAT ARE PROPOSED WITH FLOODPROOFING, AN OPERATIONS AND MAINTENANCE PLAN AS SPECIFIED IN SECTION 6.704(E)(2)(III).

(XV) SUCH OTHER MATERIAL AND INFORMATION AS MAY BE REQUESTED BY THE DEPARTMENT OF PLANNING AND ZONING, THE DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, AND THE DEPARTMENT OF PUBLIC WORKS ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR AND NECESSARY TO DETERMINE CONFORMANCE WITH THESE REGULATIONS.

(2) NEW TECHNICAL DATA.

(I) THE APPLICANT MAY SEEK A LETTER OF MAP CHANGE BY SUBMITTING NEW TECHNICAL DATA TO FEMA, SUCH AS BASE MAPS, TOPOGRAPHY, AND ENGINEERING ANALYSES TO SUPPORT REVISION OF FLOODPLAIN AND FLOODWAY BOUNDARIES AND/OR BASE FLOOD ELEVATIONS. SUCH SUBMISSIONS SHALL BE PREPARED IN A FORMAT ACCEPTABLE TO FEMA AND ANY FEES SHALL BE THE SOLE RESPONSIBILITY OF THE APPLICANT. A COPY OF THE SUBMITTAL SHALL BE ATTACHED TO THE APPLICATION FOR A PERMIT.

APPLICANTS SHALL CONFIRM THROUGH THE FLOODPLAIN ADMINISTRATOR WHETHER CHANGES CAN BE SUBMITTED DIRECTLY TO FEMA OR MUST BE SUBMITTED TO FEMA THROUGH THE COUNTY.

(II) IF THE APPLICANT SUBMITS NEW TECHNICAL DATA TO SUPPORT ANY CHANGE IN FLOODPLAIN AND DESIGNATED FLOODWAY BOUNDARIES AND/OR BASE FLOOD ELEVATIONS BUT HAS NOT SOUGHT A LETTER OF MAP CHANGE FROM FEMA, THE APPLICANT SHALL SUBMIT SUCH DATA TO FEMA AS SOON AS PRACTICABLE, BUT NOT LATER THAN SIX MONTHS AFTER THE DATE SUCH INFORMATION BECOMES AVAILABLE. SUCH SUBMISSIONS SHALL BE PREPARED IN A FORMAT ACCEPTABLE TO FEMA AND ANY FEES SHALL BE THE SOLE RESPONSIBILITY OF THE APPLICANT.

(F) *REVIEW OF APPLICATION.* ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR, THE DEPARTMENT OF PLANNING AND ZONING AND THE DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS SHALL:

(1) REVIEW APPLICATIONS FOR DEVELOPMENT IN SPECIAL FLOOD HAZARD AREAS TO DETERMINE THE COMPLETENESS OF INFORMATION SUBMITTED. THE APPLICANT SHALL BE NOTIFIED OF INCOMPLETENESS OR ADDITIONAL INFORMATION THAT IS REQUIRED TO SUPPORT THE APPLICATION.

(2) NOTIFY APPLICANTS THAT PERMITS FROM MDE AND THE U.S. ARMY CORPS OF ENGINEERS, AND OTHER STATE AND FEDERAL AUTHORITIES MAY BE REQUIRED.

(3) REVIEW ALL PERMIT APPLICATIONS TO ASSURE THAT ALL NECESSARY PERMITS HAVE BEEN RECEIVED FROM THE FEDERAL, STATE OR LOCAL GOVERNMENTAL AGENCIES FROM WHICH PRIOR APPROVAL IS REQUIRED. THE APPLICANT SHALL BE RESPONSIBLE FOR OBTAINING SUCH PERMITS, INCLUDING PERMITS ISSUED BY:

(I) THE U.S. ARMY CORPS OF ENGINEERS UNDER SECTION 10 OF THE RIVERS AND HARBORS ACT AND SECTION 404 OF THE CLEAN WATER ACT;

(II) MDE PURSUANT TO COMAR 26.23 (NONTIDAL WETLANDS) AND SECTION 401 OF THE CLEAN WATER ACT;

(III) MDE FOR CONSTRUCTION ON NONTIDAL WATERS OF THE STATE PURSUANT TO COMAR 26.17.04.

(4) REVIEW APPLICATIONS FOR COMPLIANCE WITH THESE REGULATIONS AFTER ALL INFORMATION REQUIRED IN SECTION 16.702(E) OF THESE REGULATIONS OR IDENTIFIED AND

REQUIRED BY THE DEPARTMENT OF PLANNING AND ZONING AND THE DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS, AND THE DEPARTMENT OF PUBLIC WORKS ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR HAS BEEN RECEIVED.

(G) INSPECTIONS. ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR, THE DEPARTMENT OF INSPECTION, LICENSES, AND PERMITS SHALL MAKE PERIODIC INSPECTIONS OF DEVELOPMENT PERMITTED IN SPECIAL FLOOD HAZARD AREAS, AT APPROPRIATE TIMES THROUGHOUT THE PERIOD OF CONSTRUCTION IN ORDER TO MONITOR COMPLIANCE. SUCH INSPECTIONS MAY INCLUDE:

(1) STAKE-OUT INSPECTION, TO DETERMINE LOCATION ON THE SITE RELATIVE TO THE FLOOD HAZARD AREA AND DESIGNATED FLOODWAY.

(2) FOUNDATION INSPECTION, UPON PLACEMENT OF THE LOWEST FLOOR AND PRIOR TO FURTHER VERTICAL CONSTRUCTION, TO COLLECT INFORMATION OR CERTIFICATION OF THE ELEVATION OF THE LOWEST FLOOR.

(3) INSPECTION OF ENCLOSURES BELOW THE LOWEST FLOOR, INCLUDING CRAWL/UNDERFLOOR SPACES, TO DETERMINE COMPLIANCE WITH APPLICABLE PROVISIONS.

(4) UTILITY INSPECTION, UPON INSTALLATION OF SPECIFIED EQUIPMENT AND APPLIANCES, TO DETERMINE APPROPRIATE LOCATION WITH RESPECT TO THE BASE FLOOD ELEVATION.

(5) FINAL INSPECTION PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.

(H) SUBMISSIONS REQUIRED PRIOR TO FINAL INSPECTION. PURSUANT TO THE AGREEMENT TO SUBMIT AN ELEVATION CERTIFICATE SUBMITTED WITH THE APPLICATION AS REQUIRED IN SECTION 16.702(E)(1)(IX) OF THIS SUBTITLE, THE PERMITTEE SHALL HAVE AN ELEVATION CERTIFICATE PREPARED AND SUBMITTED PRIOR TO FINAL INSPECTION AND ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR ELEVATED STRUCTURES AND MANUFACTURED HOMES, INCLUDING NEW STRUCTURES AND MANUFACTURED HOMES, SUBSTANTIALLY-IMPROVED STRUCTURES AND MANUFACTURED HOMES, AND ADDITIONS TO STRUCTURES AND MANUFACTURED HOMES.

**SECTION 16.703. REQUIREMENTS IN ALL FLOOD HAZARD AREAS.**

(A) *APPLICATION OF REQUIREMENTS.* THE GENERAL REQUIREMENTS OF THIS SECTION APPLY TO ALL DEVELOPMENT PROPOSED WITHIN ALL SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS,

IDENTIFIED IN SECTION 16.700(E). WITHIN SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, NO DEVELOPMENT SHALL BE PERMITTED EXCEPT AS PROVIDED IN THIS SUBTITLE, THE HOWARD COUNTY BUILDING CODE ADOPTED AT TITLE 3, SUBTITLE 1 OF THIS CODE AND THE SUBDIVISION REGULATIONS ADOPTED AT TITLE 16, SUBTITLE 1 OF THIS CODE.

(B) *SUBDIVISION PROPOSALS AND DEVELOPMENT PROPOSALS*

(1) IN ALL FLOOD ZONES:

(I) SUBDIVISION PROPOSALS AND DEVELOPMENT PROPOSALS SHALL BE CONSISTENT WITH THE NEED TO MINIMIZE FLOOD DAMAGE AND ARE SUBJECT TO ALL APPLICABLE STANDARDS IN THESE REGULATIONS.

(II) SUBDIVISION PROPOSALS AND DEVELOPMENT PROPOSALS SHALL HAVE UTILITIES AND FACILITIES SUCH AS SEWER, GAS, ELECTRICAL, AND WATER SYSTEMS LOCATED AND CONSTRUCTED TO MINIMIZE FLOOD DAMAGE.

(III) SUBDIVISION PROPOSALS AND DEVELOPMENT PROPOSALS SHALL HAVE ADEQUATE DRAINAGE PATHS PROVIDED TO REDUCE EXPOSURE TO FLOOD HAZARDS AND TO GUIDE FLOODWATERS AROUND AND AWAY FROM PROPOSED STRUCTURES.

(IV) SUBDIVISION PROPOSALS AND DEVELOPMENT PROPOSALS CONTAINING AT LEAST 5 LOTS OR AT LEAST 5 ACRES, WHICHEVER IS THE LESSER, THAT ARE WHOLLY OR PARTIALLY IN FLOOD HAZARD AREAS WHERE BASE FLOOD ELEVATION DATA ARE NOT PROVIDED BY THE DEPARTMENT OF PLANNING AND ZONING ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR OR AVAILABLE FROM OTHER SOURCES, SHALL BE SUPPORTED BY DETERMINATIONS OF BASE FLOOD ELEVATIONS AS REQUIRED IN SECTION 16.702(E) OF THIS SUBTITLE.

(V) NEW PUBLIC ROADS AND NEW PUBLIC SUBDIVISION ACCESS ROADS SHALL HAVE THE DRIVING SURFACE AT OR ABOVE THE BASE FLOOD ELEVATION PLUS 2 FEET.

(2) IN SPECIAL FLOOD HAZARD AREAS OF NONTIDAL WATERS OF THE STATE:

(I) SUBDIVISION PROPOSALS SHALL BE LAID OUT SUCH THAT PROPOSED BUILDING PADS ARE LOCATED OUTSIDE OF THE SPECIAL FLOOD HAZARD AREA AND ANY PORTION OF PLATTED LOTS THAT INCLUDE LAND AREAS THAT ARE BELOW THE BASE FLOOD ELEVATION SHALL BE USED FOR OTHER PURPOSES, DEED RESTRICTED, OR OTHERWISE PROTECTED TO PRESERVE IT IN AN UNDISTURBED, UNDEVELOPED CONDITION. TREE

PLANTING OR OTHER VEGETATIVE ENHANCEMENTS APPROVED AS PART OF THE SUBDIVISION PROPOSAL ARE ALLOWED.

(II) NEW PUBLIC ROADS AND NEW PUBLIC SUBDIVISION ACCESS ROADS SHALL HAVE THE DRIVING SURFACE AT OR ABOVE THE BASE FLOOD ELEVATION PLUS 2 FEET.

(C) PROTECTION OF WATER SUPPLY AND SANITARY SEWAGE SYSTEMS

(1) NEW AND REPLACEMENT WATER SUPPLY SYSTEMS SHALL BE DESIGNED TO MINIMIZE OR ELIMINATE INFILTRATION OF FLOODWATERS INTO THE SYSTEMS.

(2) NEW AND REPLACEMENT SANITARY SEWAGE SYSTEMS SHALL BE DESIGNED TO MINIMIZE OR ELIMINATE INFILTRATION OF FLOODWATERS INTO SYSTEMS AND DISCHARGES FROM SYSTEMS INTO FLOODWATERS.

(3) ON-SITE WASTE DISPOSAL SYSTEMS SHALL BE LOCATED TO AVOID IMPAIRMENT TO OR CONTAMINATION FROM THEM DURING CONDITIONS OF FLOODING.

(D)BUILDINGS AND STRUCTURES. NEW BUILDINGS AND STRUCTURES (EXCLUDING THE PLACEMENT AND REPLACEMENT OF MANUFACTURED HOMES) AND SUBSTANTIAL IMPROVEMENT OF EXISTING STRUCTURES (EXCLUDING MANUFACTURED HOMES) THAT ARE LOCATED, IN WHOLE OR IN PART, IN ANY SPECIAL FLOOD HAZARD AREA SHALL:

(1) BE DESIGNED (OR MODIFIED) AND CONSTRUCTED TO SAFELY SUPPORT FLOOD LOADS. THE CONSTRUCTION SHALL PROVIDE A COMPLETE LOAD PATH CAPABLE OF TRANSFERRING ALL LOADS FROM THEIR POINT OF ORIGIN THROUGH THE LOAD-RESISTING ELEMENTS TO THE FOUNDATION. STRUCTURES SHALL BE DESIGNED, CONNECTED AND ANCHORED TO RESIST FLOTATION, COLLAPSE OR PERMANENT LATERAL MOVEMENT DUE TO STRUCTURAL LOADS AND STRESSES, INCLUDING HYDRODYNAMIC AND HYDROSTATIC LOADS AND THE EFFECTS OF BUOYANCY, FROM FLOODING EQUAL TO THE FLOOD PROTECTION ELEVATION OR THE ELEVATION REQUIRED BY THESE REGULATIONS OR THE BUILDING CODE, WHICHEVER IS HIGHER.

(2) BE CONSTRUCTED BY METHODS AND PRACTICES THAT MINIMIZE FLOOD DAMAGE.

(3) USE FLOOD DAMAGE-RESISTANT MATERIALS BELOW THE ELEVATION OF THE LOWEST FLOOR REQUIRED IN SECTION 16.704(D)(1) OR SECTION 16.704(E)(1) OF THIS SUBTITLE.

(4) HAVE ELECTRICAL SYSTEMS, EQUIPMENT AND COMPONENTS, AND MECHANICAL, HEATING, VENTILATING, AIR CONDITIONING, AND PLUMBING APPLIANCES, PLUMBING FIXTURES, DUCT SYSTEMS, AND OTHER SERVICE EQUIPMENT LOCATED AT OR ABOVE THE ELEVATION OF THE

LOWEST FLOOR REQUIRED IN SECTION 16.704(D)(1) OR SECTION 16.704(E)(1) OF THIS SUBTITLE. ELECTRICAL WIRING SYSTEMS ARE PERMITTED TO BE LOCATED BELOW ELEVATION OF THE LOWEST FLOOR PROVIDED THEY CONFORM TO THE PROVISIONS OF THE ELECTRICAL PART OF THE BUILDING CODE FOR WET LOCATIONS. IF REPLACED AS PART OF A SUBSTANTIAL IMPROVEMENT, ELECTRICAL SYSTEMS, EQUIPMENT AND COMPONENTS, AND HEATING, VENTILATION, AIR CONDITIONING, AND PLUMBING APPLIANCES, PLUMBING FIXTURES, DUCT SYSTEMS, AND OTHER SERVICE EQUIPMENT SHALL MEET THE REQUIREMENTS OF THIS SECTION.

(5) AS AN ALTERNATIVE TO PARAGRAPH (4), ELECTRICAL SYSTEMS, EQUIPMENT AND COMPONENTS, AND HEATING, VENTILATING, AIR CONDITIONING, AND PLUMBING APPLIANCES, PLUMBING FIXTURES, DUCT SYSTEMS, AND OTHER SERVICE EQUIPMENT ARE PERMITTED TO BE LOCATED BELOW THE ELEVATION OF THE LOWEST FLOOR PROVIDED THEY ARE DESIGNED AND INSTALLED TO PREVENT WATER FROM ENTERING OR ACCUMULATING WITHIN THE COMPONENTS AND TO RESIST HYDROSTATIC AND HYDRODYNAMIC LOADS AND STRESSES, INCLUDING THE EFFECTS OF BUOYANCY, DURING THE OCCURRENCE OF FLOODING TO THAT ELEVATION.

(6) HAVE THE ELECTRIC PANELBOARD ELEVATED AT LEAST THREE (3) FEET ABOVE THE BFE.

(7) COMPLY WITH THE SPECIFIC REQUIREMENTS OF SECTION 16.704 OF THIS SUBTITLE.

(8) COMPLY WITH THE REQUIREMENTS OF THE MOST RESTRICTIVE DESIGNATION IF LOCATED ON A SITE THAT HAS MORE THAN ONE FLOOD ZONE DESIGNATION (A ZONE, DESIGNATED FLOODWAY).

(E)PLACEMENT OF FILL.

(1) DISPOSAL OF FILL, INCLUDING BUT NOT LIMITED TO EARTHEN SOILS, ROCK, RUBBLE, CONSTRUCTION DEBRIS, WOODY DEBRIS, AND TRASH, SHALL NOT BE PERMITTED IN SPECIAL FLOOD HAZARD AREAS.

(2) FILL PROPOSED TO BE PLACED TO ELEVATE STRUCTURES IN FLOOD HAZARD AREAS SHALL COMPLY WITH THE FLOODWAYS REQUIREMENTS IN SECTION 16.704(C)(1) AND SECTION 16.704(C)(2) AND THE LIMITATIONS OF SECTION 16.704(D)(2), ALL OF THIS SUBTITLE.

(F) HISTORIC STRUCTURES. REPAIR, ALTERATION, ADDITION, REHABILITATION, OR OTHER IMPROVEMENT OF HISTORIC STRUCTURES SHALL BE SUBJECT TO THE REQUIREMENTS OF

THESE REGULATIONS IF THE PROPOSED WORK IS DETERMINED TO BE A SUBSTANTIAL IMPROVEMENT, UNLESS A DETERMINATION IS MADE THAT THE PROPOSED WORK WILL PRECLUDE THE STRUCTURE'S CONTINUED DESIGNATION AS A HISTORIC STRUCTURE. ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR, THE DEPARTMENT OF PLANNING AND ZONING MAY REQUIRE DOCUMENTATION OF A STRUCTURE'S CONTINUED ELIGIBILITY AND DESIGNATION AS A HISTORIC STRUCTURE.

(G)MANUFACTURED HOMES.

(1) NEW MANUFACTURED HOMES SHALL NOT BE PLACED OR INSTALLED IN SPECIAL FLOOD HAZARD AREAS OR FLOODWAYS.

(2) FOR THE PURPOSE OF THESE REGULATIONS, THE LOWEST FLOOR OF A MANUFACTURED HOME IS THE BOTTOM OF THE LOWEST HORIZONTAL SUPPORTING MEMBER (LONGITUDINAL CHASSIS FRAME BEAM).

(3) NEW MANUFACTURED HOMES LOCATED OUTSIDE OF FLOODWAYS, REPLACEMENT MANUFACTURED HOMES IN ANY FLOOD HAZARD AREAS, AND SUBSTANTIAL IMPROVEMENT (INCLUDING REPAIR OF SUBSTANTIAL DAMAGE) OF EXISTING MANUFACTURED HOMES IS PROHIBITED IN ALL FLOOD HAZARD AREAS.

(H)RECREATIONAL VEHICLES. RECREATIONAL VEHICLES SHALL:

(1) MEET THE REQUIREMENTS FOR MANUFACTURED HOMES IN SECTION 4.716.703(G) OF THIS SUBTITLE; OR

(2) BE FULLY LICENSED AND READY FOR HIGHWAY USE; OR

(3) BE ON A SITE FOR LESS THAN 180 CONSECUTIVE DAYS.

(I)CRITICAL AND ESSENTIAL FACILITIES. CRITICAL AND ESSENTIAL FACILITIES SHALL:

(1) NOT BE LOCATED IN FLOODWAYS.

(2) IF LOCATED IN FLOOD HAZARD AREAS OTHER THAN FLOODWAYS, BE ELEVATED TO THE HIGHER OF ELEVATION REQUIRED BY THESE REGULATIONS PLUS ONE (1) FOOT, THE ELEVATION REQUIRED BY THE BUILDING CODE, OR THE ELEVATION OF THE 0.2 PERCENT CHANCE (500-YEAR) FLOOD.

(3) DEPARTMENT OF PUBLIC WORKS CRITICAL AND ESSENTIAL FACILITIES, INCLUDING BUT NOT LIMITED TO WASTEWATER TREATMENT PLANTS, PUMPING STATIONS, AND DRINKING WATER TANKS, ARE EXEMPT FROM THE PROHIBITIONS OF THIS SECTION AT THE DISCRETION

OF THE FLOODPLAIN ADMINISTRATOR, BUT MUST ADDRESS ALL OTHER REQUIREMENTS OF THESE REGULATIONS.

(J)TEMPORARY STRUCTURES AND TEMPORARY STORAGE. IN ADDITION TO THE APPLICATION REQUIREMENTS OF SECTION 16.702(E) OF THIS SUBTITLE, APPLICATIONS FOR THE PLACEMENT OR ERECTION OF TEMPORARY STRUCTURES AND THE TEMPORARY STORAGE OF ANY GOODS, MATERIALS, AND EQUIPMENT, SHALL SPECIFY THE DURATION OF THE TEMPORARY USE. TEMPORARY STRUCTURES AND TEMPORARY STORAGE IN FLOODWAYS SHALL MEET THE LIMITATIONS OF SECTION 16.704(C)(1) OF THIS SUBTITLE. IN ADDITION:

(1) TEMPORARY STRUCTURES SHALL:

(I) BE DESIGNED AND CONSTRUCTED TO PREVENT FLOTATION, COLLAPSE OR LATERAL MOVEMENT RESULTING FROM HYDRODYNAMIC LOADS AND HYDROSTATIC LOADS DURING CONDITIONS OF THE BASE FLOOD;

(II) HAVE ELECTRIC SERVICE INSTALLED IN COMPLIANCE WITH THE ELECTRIC CODE; AND

(III) COMPLY WITH ALL OTHER REQUIREMENTS OF THE APPLICABLE STATE AND LOCAL PERMIT AUTHORITIES.

(2) TEMPORARY STORAGE SHALL NOT INCLUDE HAZARDOUS MATERIALS.

(K) GAS OR LIQUID STORAGE TANKS

(1) UNDERGROUND TANKS IN FLOOD HAZARD AREAS SHALL BE ANCHORED TO PREVENT FLOTATION, COLLAPSE OR LATERAL MOVEMENT RESULTING FROM HYDROSTATIC LOADS, INCLUDING THE EFFECTS OF BUOYANCY, DURING CONDITIONS OF THE BASE FLOOD.

(2) ABOVE-GROUND TANKS IN FLOOD HAZARD AREAS SHALL BE ANCHORED TO A SUPPORTING STRUCTURE AND ELEVATED TO OR ABOVE THE BASE FLOOD ELEVATION, OR SHALL BE ANCHORED OR OTHERWISE DESIGNED AND CONSTRUCTED TO PREVENT FLOTATION, COLLAPSE, OR LATERAL MOVEMENT RESULTING FROM HYDRODYNAMIC AND HYDROSTATIC LOADS, INCLUDING THE EFFECTS OF BUOYANCY, DURING CONDITIONS OF THE BASE FLOOD.

(3) IN FLOOD HAZARD AREAS, TANK INLETS, FILL OPENINGS, OUTLETS AND VENTS SHALL BE:

(I) AT OR ABOVE THE BASE FLOOD ELEVATION OR FITTED WITH COVERS DESIGNED TO PREVENT THE INFLOW OF FLOODWATER OR OUTFLOW OF THE CONTENTS OF THE TANKS DURING CONDITIONS OF THE BASE FLOOD; AND

(II) ANCHORED TO PREVENT LATERAL MOVEMENT RESULTING FROM HYDRODYNAMIC AND HYDROSTATIC LOADS, INCLUDING THE EFFECTS OF BUOYANCY, DURING CONDITIONS OF THE BASE FLOOD.

(L) FUNCTIONALLY DEPENDENT USES. APPLICATIONS FOR FUNCTIONALLY DEPENDENT USES THAT DO NOT CONFORM TO THE REQUIREMENTS OF THESE REGULATIONS SHALL BE APPROVED ONLY BY ALTERNATIVE COMPLIANCES ISSUED PURSUANT TO SECTION 16.706 OF THIS SUBTITLE. IF APPROVED, FUNCTIONALLY DEPENDENT USES SHALL BE PROTECTED BY METHODS THAT MINIMIZE FLOOD DAMAGE DURING THE BASE FLOOD, INCLUDING MEASURES TO ALLOW FLOODWATERS TO ENTER AND EXIT, USE OF FLOOD DAMAGE-RESISTANT MATERIALS, AND ELEVATION OF ELECTRIC SERVICE AND EQUIPMENT TO THE EXTENT PRACTICAL GIVEN THE USE OF THE BUILDING.

**SECTION 16.704. ADDITIONAL REQUIREMENTS IN FLOOD HAZARD AREAS**

(A)GENERAL REQUIREMENTS. IN ADDITION TO THE GENERAL REQUIREMENTS OF SECTION 16.703 OF THIS SUBTITLE, THE REQUIREMENTS OF THIS SECTION SHALL:

(1) APPLY IN FLOOD HAZARD AREAS, INCLUDING SPECIAL FLOOD HAZARD AREAS ALONG NONTIDAL WATERS OF THE STATE;

(2) APPLY TO ALL DEVELOPMENT, NEW CONSTRUCTION, SUBSTANTIAL IMPROVEMENTS (INCLUDING REPAIR OF SUBSTANTIAL DAMAGE), EXCLUDING THE PLACEMENT, REPLACEMENT, AND SUBSTANTIAL IMPROVEMENT (INCLUDING REPAIR OF SUBSTANTIAL DAMAGE) OF MANUFACTURED HOMES, WHICH ARE PROHIBITED IN SPECIAL FLOOD HAZARD AREAS.

WITHIN SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, NO DEVELOPMENT SHALL BE PERMITTED EXCEPT AS PROVIDED IN THIS SUBTITLE, THE HOWARD COUNTY BUILDING CODE ADOPTED AT TITLE 3, SUBTITLE 1 OF THIS CODE AND THE SUBDIVISION REGULATIONS ADOPTED AT TITLE 16, SUBTITLE 1 OF THIS CODE. THE MAINTENANCE AND REPAIR OF EXISTING PRINCIPAL AND ACCESSORY STRUCTURES WITHIN SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, IS PERMISSIBLE, SUBJECT TO OBTAINING ALL RELEVANT PERMITS. DEMOLITION, EITHER VOLUNTARY OR

INVOLUNTARY, AND REPLACEMENT OF A HOME WITHIN A SPECIAL FLOOD HAZARD AREA, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, SHALL BE EVALUATED ON A CASE-BY-CASE BASIS AND SHALL MEET THE REQUIREMENTS OF THE HOWARD COUNTY BUILDING CODE, THE DPW DESIGN MANUAL, AND THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, INCLUDING SUBTITLE 7, FLOODPLAIN.

(B) FLOOD PROTECTION SETBACKS. WITHIN AREAS DEFINED BY FLOOD PROTECTION SETBACKS ALONG NONTIDAL WATERS OF THE STATE:

(1) NO NEW BUILDINGS, STRUCTURES, OR OTHER DEVELOPMENT SHALL BE PERMITTED UNLESS THE APPLICANT DEMONSTRATES THAT THE SITE CANNOT BE DEVELOPED WITHOUT SUCH ENCROACHMENT INTO THE FLOOD PROTECTION SETBACK AND THE ENCROACHMENT IS THE MINIMUM NECESSARY AFTER CONSIDERATION OF VARYING OTHER SITING STANDARDS SUCH AS SIDE, FRONT, AND BACK LOT LINE SETBACKS.

(2) DISTURBANCE OF NATURAL VEGETATION SHALL BE MINIMIZED AND ANY DISTURBANCE ALLOWED SHALL BE VEGETATIVELY STABILIZED.

(3) PUBLIC WORKS AND TEMPORARY CONSTRUCTION MAY BE PERMITTED.

(C) DEVELOPMENT THAT AFFECTS FLOOD-CARRYING CAPACITY OF NONTIDAL WATERS OF THE STATE.

(1) DEVELOPMENT IN DESIGNATED FLOODWAYS. FOR PROPOSED DEVELOPMENT THAT WILL ENCROACH INTO A DESIGNATED FLOODWAY, SECTION 16.702(E)(1)(VII) OF THIS CODE REQUIRES THE APPLICANT TO SUBMIT AN EVALUATION OF ALTERNATIVES TO SUCH ENCROACHMENT, INCLUDING DIFFERENT USES OF THE SITE OR THE PORTION OF THE SITE WITHIN THE FLOODWAY, AND MINIMIZATION OF SUCH ENCROACHMENT. THIS REQUIREMENT DOES NOT APPLY TO FENCES THAT DO NOT BLOCK THE FLOW OF FLOODWATERS OR TRAP DEBRIS. PROPOSED DEVELOPMENT IN A DESIGNATED FLOODWAY MAY BE PERMITTED ONLY IF:

(I) THE APPLICANT HAS BEEN ISSUED A PERMIT BY MDE; AND

(II) THE APPLICANT HAS DEVELOPED HYDROLOGIC AND HYDRAULIC ENGINEERING ANALYSES AND TECHNICAL DATA PREPARED BY A LICENSED PROFESSIONAL ENGINEER REFLECTING SUCH CHANGES, AND THE ANALYSES, WHICH SHALL BE SUBMITTED TO THE

DEPARTMENT OF PLANNING AND ZONING, DEMONSTRATE THAT THE PROPOSED ACTIVITY WILL NOT RESULT IN ANY INCREASE IN THE BASE FLOOD ELEVATION; OR

(III) IF THE ANALYSES DEMONSTRATE THAT THE PROPOSED ACTIVITIES WILL RESULT IN AN INCREASE IN THE BASE FLOOD ELEVATION, THE APPLICANT HAS OBTAINED A CONDITIONAL LETTER OF MAP REVISION AND A LETTER OF MAP REVISION FROM FEMA UPON COMPLETION OF THE PROJECT. SUBMITTAL REQUIREMENTS AND FEES SHALL BE THE RESPONSIBILITY OF THE APPLICANT.

(2) DEVELOPMENT IN AREAS WITH BASE FLOOD ELEVATIONS BUT NO DESIGNATED FLOODWAYS. FOR DEVELOPMENT IN SPECIAL FLOOD HAZARD AREAS OF NONTIDAL WATERS OF THE STATE WITH BASE FLOOD ELEVATIONS BUT NO DESIGNATED FLOODWAYS:

(I) THE APPLICANT SHALL DEVELOP HYDROLOGIC AND HYDRAULIC ENGINEERING ANALYSES AND TECHNICAL DATA REFLECTING THE PROPOSED ACTIVITY AND SHALL SUBMIT SUCH TECHNICAL DATA TO THE DEPARTMENT OF PLANNING AND ZONING, THE DEPARTMENT OF PUBLIC WORKS, AND THE FLOODPLAIN ADMINISTRATOR AS REQUIRED IN SECTION 16.702(E)(1)(VI) OF THIS CODE. THE ANALYSES SHALL BE PREPARED BY A LICENSED PROFESSIONAL ENGINEER IN A FORMAT REQUIRED BY FEMA FOR A CONDITIONAL LETTER OF MAP REVISION AND A LETTER OF MAP REVISION UPON COMPLETION OF THE PROJECT. SUBMITTAL REQUIREMENTS AND FEES SHALL BE THE RESPONSIBILITY OF THE APPLICANT.

(II) THE PROPOSED DEVELOPMENT MAY BE PERMITTED IF THE APPLICANT HAS RECEIVED A PERMIT BY MDE AND IF THE ANALYSES DEMONSTRATE THAT THE CUMULATIVE EFFECT OF THE PROPOSED DEVELOPMENT, WHEN COMBINED WITH ALL OTHER EXISTING AND POTENTIAL FLOOD HAZARD AREA ENCROACHMENTS WILL NOT INCREASE THE BASE FLOOD ELEVATION MORE THAN 0.00 FOOT AT ANY POINT.

(3) CONSTRUCTION OF ROADS, BRIDGES, CULVERTS, DAMS AND IN-STREAM PONDS. CONSTRUCTION OF ROADS, BRIDGES, CULVERTS, DAMS, AND IN-STREAM PONDS IN NONTIDAL WATERS OF THE STATE SHALL NOT BE APPROVED UNLESS THEY COMPLY WITH THIS SECTION AND THE APPLICANT HAS RECEIVED A PERMIT FROM MDE.

(4) ALTERATION OF A WATERCOURSE. FOR ANY PROPOSED DEVELOPMENT THAT INVOLVES ALTERATION OF A WATERCOURSE NOT SUBJECT TO PARAGRAPH (2), UNLESS WAIVED BY MDE, THE APPLICANT SHALL DEVELOP HYDROLOGIC AND HYDRAULIC ENGINEERING

ANALYSES AND TECHNICAL DATA REFLECTING SUCH CHANGES, INCLUDING THE FLOODWAY ANALYSIS REQUIRED IN SECTION 16.702(E)(1) OF THIS CODE, AND SUBMIT SUCH TECHNICAL DATA TO THE DEPARTMENT OF PLANNING AND ZONING, THE DEPARTMENT OF PUBLIC WORKS, THE FLOODPLAIN ADMINISTRATOR AND TO FEMA. THE ANALYSES SHALL BE PREPARED BY A LICENSED PROFESSIONAL ENGINEER IN A FORMAT REQUIRED BY MDE AND BY FEMA FOR A CONDITIONAL LETTER OF MAP REVISION AND A LETTER OF MAP REVISION UPON COMPLETION OF THE PROJECT. SUBMITTAL REQUIREMENTS AND FEES SHALL BE THE RESPONSIBILITY OF THE APPLICANT. ALTERATION OF A WATERCOURSE MAY BE PERMITTED ONLY UPON SUBMISSION, BY THE APPLICANT, OF THE FOLLOWING:

(I) A DESCRIPTION OF THE EXTENT TO WHICH THE WATERCOURSE WILL BE ALTERED OR RELOCATED;

(II) A CERTIFICATION BY A LICENSED PROFESSIONAL ENGINEER THAT THE FLOOD-CARRYING CAPACITY OF THE WATERCOURSE WILL NOT BE DIMINISHED;

(III) EVIDENCE THAT ADJACENT COMMUNITIES, THE U.S. ARMY CORPS OF ENGINEERS, AND MDE HAVE BEEN NOTIFIED OF THE PROPOSAL, AND EVIDENCE THAT SUCH NOTIFICATIONS HAVE BEEN SUBMITTED TO FEMA; AND

(IV) EVIDENCE THAT THE APPLICANT SHALL BE RESPONSIBLE FOR PROVIDING THE NECESSARY MAINTENANCE FOR THE ALTERED OR RELOCATED PORTION OF THE WATERCOURSE SO THAT THE FLOOD CARRYING CAPACITY WILL NOT BE DIMINISHED. THE FLOODPLAIN ADMINISTRATOR MAY REQUIRE THE APPLICANT TO ENTER INTO AN AGREEMENT WITH HOWARD COUNTY, MARYLAND, SPECIFYING THE MAINTENANCE RESPONSIBILITIES; IF AN AGREEMENT IS REQUIRED, THE PERMIT SHALL BE CONDITIONED TO REQUIRE THAT THE AGREEMENT BE RECORDED ON THE DEED OF THE PROPERTY, WHICH SHALL BE BINDING ON FUTURE OWNERS.

(D) RESIDENTIAL STRUCTURES AND RESIDENTIAL PORTIONS OF MIXED USE STRUCTURES. NEW RESIDENTIAL STRUCTURES AND RESIDENTIAL PORTIONS OF MIXED USE STRUCTURES, AND SUBSTANTIAL IMPROVEMENT (INCLUDING REPAIR OF SUBSTANTIAL DAMAGE) OF EXISTING RESIDENTIAL STRUCTURES AND RESIDENTIAL PORTIONS OF MIXED USE STRUCTURES SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF SECTION 16.703 OF THIS CODE AND THIS SECTION. THE REPLACEMENT OF A PORTION OF AN EXISTING RESIDENCE (DECK, BUILDING WING, ETC.) LOCATED WITHIN SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND

COMMUNITY SPECIAL FLOOD HAZARD AREAS, IS PERMISSIBLE PROVIDED THE SUBJECT IMPROVEMENT EXISTED AS OF JULY 14, 2014, AND PROVIDED IT IS BEING REPLACED IN KIND OR WITH A SMALLER VERSION, UNLESS APPROVED BY AN ALTERNATIVE COMPLIANCE. ALL REPLACEMENTS OF A PORTION OF AN EXISTING RESIDENCE ARE SUBJECT REVIEW UNDER SUBSTANTIAL IMPROVEMENT AND SUBSTANTIAL DAMAGE REQUIREMENTS. SEE SUBSECTION (F) OF THIS SECTION FOR REQUIREMENTS FOR HORIZONTAL ADDITIONS.

(1) ELEVATION REQUIREMENTS

(I) LOWEST FLOORS SHALL BE ELEVATED TO OR ABOVE THE FLOOD PROTECTION ELEVATION.

(II) IN AREAS OF SHALLOW FLOODING (ZONE AO), THE LOWEST FLOOR (INCLUDING BASEMENT) SHALL BE ELEVATED AT LEAST AS HIGH ABOVE THE HIGHEST ADJACENT GRADE AS THE DEPTH NUMBER SPECIFIED IN FEET ON THE FIRM PLUS TWO (2) FEET, OR AT LEAST FOUR (4) FEET IF A DEPTH NUMBER IS NOT SPECIFIED.

(III) ENCLOSURES BELOW THE LOWEST FLOOR SHALL MEET THE REQUIREMENTS OF PARAGRAPH (3).

(IV) BASEMENT FLOORS THAT ARE BELOW GRADE ON ALL SIDES ARE PROHIBITED.

(2) LIMITATIONS ON USE OF FILL TO ELEVATE STRUCTURES. UNLESS OTHERWISE RESTRICTED BY THESE REGULATIONS, ESPECIALLY BY THE LIMITATIONS IN SUBSECTIONS (C)(1) AND (C)(2) OF THIS SECTION, FILL PLACED FOR THE PURPOSE OF RAISING THE GROUND LEVEL TO SUPPORT A BUILDING OR STRUCTURE SHALL:

(I) CONSIST OF EARTHEN SOIL OR ROCK MATERIALS ONLY.

(II) EXTEND LATERALLY FROM THE BUILDING FOOTPRINT TO PROVIDE FOR ADEQUATE ACCESS AS A FUNCTION OF USE; THE FLOODPLAIN ADMINISTRATOR MAY SEEK ADVICE FROM THE STATE FIRE MARSHAL'S OFFICE AND/OR THE LOCAL FIRE SERVICES AGENCY;

(III) COMPLY WITH THE REQUIREMENTS OF THE BUILDING CODE AND BE PLACED AND COMPACTED TO PROVIDE FOR STABILITY UNDER CONDITIONS OF RISING AND FALLING FLOODWATERS AND RESISTANCE TO EROSION, SCOUR, AND SETTLING;

(IV) BE SLOPED NO STEEPER THAN ONE (1) VERTICAL TO TWO (2) HORIZONTAL, UNLESS APPROVED BY THE FLOODPLAIN ADMINISTRATOR;

(V) BE PROTECTED FROM EROSION ASSOCIATED WITH EXPECTED VELOCITIES DURING THE OCCURRENCE OF THE BASE FLOOD; UNLESS APPROVED BY THE FLOODPLAIN

ADMINISTRATOR, FILL SLOPES SHALL BE PROTECTED BY VEGETATION IF THE EXPECTED VELOCITY IS LESS THAN FIVE FEET PER SECOND, AND BY OTHER MEANS IF THE EXPECTED VELOCITY IS FIVE FEET PER SECOND OR MORE; AND

(VI) BE DESIGNED WITH PROVISIONS FOR ADEQUATE DRAINAGE AND NO ADVERSE EFFECT ON ADJACENT PROPERTIES.

(3) ENCLOSURES BELOW THE LOWEST FLOOR

(I) ENCLOSURES BELOW THE LOWEST FLOOR SHALL BE USED SOLELY FOR PARKING OF VEHICLES, BUILDING ACCESS, CRAWL/UNDERFLOOR SPACES, OR LIMITED STORAGE.

(II) ENCLOSURES BELOW THE LOWEST FLOOR SHALL BE CONSTRUCTED USING FLOOD DAMAGE-RESISTANT MATERIALS.

(III) ENCLOSURES BELOW THE LOWEST FLOOR SHALL BE PROVIDED WITH FLOOD OPENINGS WHICH SHALL MEET THE FOLLOWING CRITERIA: [NOTE: SEE NFIP TECHNICAL BULLETIN #1, "OPENINGS IN FOUNDATION WALLS AND WALLS OF ENCLOSURES."]

1. THERE SHALL BE A MINIMUM OF TWO 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.
2. 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.
3. 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.
4. ANY LOUVERS, SCREENS OR OTHER COVERS FOR THE FLOOD OPENINGS SHALL ALLOW THE AUTOMATIC FLOW OF FLOODWATERS INTO AND OUT OF THE ENCLOSED AREA.

5. IF INSTALLED IN DOORS, FLOOD OPENINGS THAT MEET REQUIREMENTS OF PARAGRAPHS (A) THROUGH (D), ARE ACCEPTABLE; HOWEVER, DOORS WITHOUT INSTALLED FLOOD OPENINGS DO NOT MEET THE REQUIREMENTS OF THIS SECTION.

(E) NONRESIDENTIAL STRUCTURES AND NONRESIDENTIAL PORTIONS OF MIXED USE STRUCTURES. NEW NONRESIDENTIAL STRUCTURES AND NONRESIDENTIAL PORTIONS OF MIXED USE STRUCTURES, AND SUBSTANTIAL IMPROVEMENT (INCLUDING REPAIR OF SUBSTANTIAL DAMAGE) OF EXISTING NONRESIDENTIAL STRUCTURES AND NONRESIDENTIAL PORTIONS OF MIXED USE STRUCTURES SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF SECTION 16.703 OF THIS SUBTITLE AND THE REQUIREMENTS OF THIS SECTION. SEE SUBSECTION (F) OF THIS SECTION FOR REQUIREMENTS FOR HORIZONTAL ADDITIONS.

(1) ELEVATION REQUIREMENTS. ELEVATED STRUCTURES SHALL:

(I) HAVE THE LOWEST FLOOR (INCLUDING BASEMENT) ELEVATED TO OR ABOVE THE FLOOD PROTECTION ELEVATION; OR

(II) IN AREAS OF SHALLOW FLOODING (ZONE AO), HAVE THE LOWEST FLOOR (INCLUDING BASEMENT) ELEVATED AT LEAST AS HIGH ABOVE THE HIGHEST ADJACENT GRADE AS THE DEPTH NUMBER SPECIFIED IN FEET ON THE FIRM PLUS TWO (2) FEET, OR AT LEAST FOUR (4) FEET IF A DEPTH NUMBER IS NOT SPECIFIED; AND

(III) HAVE ENCLOSURES BELOW THE LOWEST FLOOR, IF ANY, THAT COMPLY WITH THE REQUIREMENTS OF SUBSECTION (D)(3) OF THIS SECTION; OR

(IV) IF PROPOSED TO BE ELEVATED ON FILL, MEET THE LIMITATIONS ON FILL IN SUBSECTION (D)(2) OF THIS SECTION.

(V) BASEMENT FLOORS THAT ARE BELOW GRADE ON ALL SIDES ARE PROHIBITED.

(2) FLOODPROOFING REQUIREMENTS

(I) FLOODPROOFING OF NEW NONRESIDENTIAL BUILDINGS IS NOT ALLOWED IN NONTIDAL WATERS OF THE STATE (COMAR 26.17.04.11(B)(7)).

(II) FLOODPROOFING FOR SUBSTANTIAL IMPROVEMENT OF NONRESIDENTIAL BUILDINGS IS ALLOWED IN NONTIDAL WATERS OF THE STATE.

(III) IF FLOODPROOFING IS PROPOSED, STRUCTURES SHALL:

A. BE DESIGNED TO BE DRY FLOODPROOFED SUCH THAT THE BUILDING OR STRUCTURE IS WATERTIGHT WITH WALLS AND FLOORS SUBSTANTIALLY IMPERMEABLE TO THE

PASSAGE OF WATER TO THE LEVEL OF THE FLOOD PROTECTION ELEVATION PLUS 2 FEET, OR

B. IF LOCATED IN AN AREA OF SHALLOW FLOODING (ZONE AO), BE DRY FLOODPROOFED AT LEAST AS HIGH ABOVE THE HIGHEST ADJACENT GRADE AS THE DEPTH NUMBER SPECIFIED ON THE FIRM PLUS THREE (3) FEET, OR AT LEAST FIVE (5) FEET IF A DEPTH NUMBER IS NOT SPECIFIED; AND

C. HAVE STRUCTURAL COMPONENTS CAPABLE OF RESISTING HYDROSTATIC AND HYDRODYNAMIC LOADS AND EFFECTS OF BUOYANCY;

D. HAVE FLOODPROOFING MEASURES THAT ARE DESIGNED TAKING INTO CONSIDERATION THE NATURE OF FLOOD-RELATED HAZARDS; FREQUENCY, DEPTH AND DURATION OF FLOODING; RATE OF RISE AND FALL OF FLOODWATER; SOIL CHARACTERISTICS; FLOOD-BORNE DEBRIS; AT LEAST 12 HOURS OF FLOOD WARNING TIME FROM A CREDIBLE SOURCE; AND TIME NECESSARY TO IMPLEMENT ANY MEASURES THAT REQUIRE HUMAN INTERVENTION;

E. HAVE AT LEAST ONE DOOR ABOVE THE APPLICABLE FLOOD ELEVATION THAT ALLOWS HUMAN INGRESS AND EGRESS DURING CONDITIONS OF FLOODING;

F. HAVE AN OPERATIONS AND MAINTENANCE PLAN THAT IS FILED WITH LOCAL EMERGENCY MANAGEMENT OFFICIALS AND THAT SPECIFIES THE OWNER/OCCUPANT'S RESPONSIBILITIES TO MONITOR FLOOD POTENTIAL; THE LOCATION OF ANY SHIELDS, DOORS, CLOSURES, TOOLS, OR OTHER GOODS THAT ARE REQUIRED FOR IMPLEMENTATION; MAINTENANCE OF SUCH GOODS; METHODS OF INSTALLATION; AND PERIODIC INSPECTION; AND

G. BE CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER OR LICENSED ARCHITECT, THROUGH EXECUTION OF A FLOODPROOFING CERTIFICATE THAT STATES THAT THE DESIGN AND METHODS OF CONSTRUCTION MEET THE REQUIREMENTS OF THIS SECTION. THE FLOODPROOFING CERTIFICATE SHALL BE SUBMITTED WITH THE CONSTRUCTION DRAWINGS AS REQUIRED IN SECTION 16.702(E)(1)(XIII) OF THIS SUBTITLE.

(F) ADDITIONS AND EXPANSIONS

(1) VERTICAL AND/OR HORIZONTAL ADDITIONS AND EXPANSIONS PROPOSED FOR A BUILDING OR STRUCTURE THAT WAS CONSTRUCTED AFTER THE MARCH 15, 1977, ARE PROHIBITED

UNLESS APPROVED BY ALTERNATIVE COMPLIANCE. IF APPROVED, VERTICAL AND HORIZONTAL ADDITIONS AND EXPANSIONS SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF SECTION 16.703 OF THIS SUBTITLE AND THIS SECTION.

(2) IN NONTIDAL WATERS OF THE STATE THAT ARE SUBJECT TO THE REGULATORY AUTHORITY OF MDE, ALL HORIZONTAL ADDITIONS SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF SECTION 16.703 OF THIS SUBTITLE AND THIS SECTION AND:

(I) IF THE ADDITION IS STRUCTURALLY CONNECTED TO THE BASE BUILDING, THE REQUIREMENTS OF PARAGRAPH (3) APPLY.

(II) IF THE ADDITION HAS AN INDEPENDENT FOUNDATION AND IS NOT STRUCTURALLY CONNECTED TO THE BASE BUILDING AND THE COMMON WALL WITH THE BASE BUILDING IS MODIFIED BY NO MORE THAN A DOORWAY, THE BASE BUILDING IS NOT REQUIRED TO BE BROUGHT INTO COMPLIANCE.

(3) VERTICAL AND/OR HORIZONTAL ADDITIONS THAT ARE STRUCTURALLY CONNECTED TO THE BASE BUILDING OF NONCONFORMING STRUCTURES LOCATED WITHIN SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, SHALL NOT BE EXPANDED OR ENLARGED, UNLESS APPROVED BY ALTERNATIVE COMPLIANCE.:

(I) IF THE ADDITION COMBINED WITH OTHER PROPOSED REPAIRS, ALTERATIONS, OR MODIFICATIONS OF THE BASE BUILDING CONSTITUTES SUBSTANTIAL IMPROVEMENT, THE BASE BUILDING AND THE ADDITION SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF SECTION 16.703 OF THIS SUBTITLE AND THIS SECTION.

(II) IF THE ADDITION CONSTITUTES SUBSTANTIAL IMPROVEMENT, THE BASE BUILDING AND THE ADDITION SHALL COMPLY WITH ALL OF THE APPLICABLE REQUIREMENTS OF SECTION 16.703 OF THIS SUBTITLE AND THIS SECTION.

(4) FOR VERTICAL AND/OR HORIZONTAL ADDITIONS WITH INDEPENDENT FOUNDATIONS THAT ARE NOT STRUCTURALLY CONNECTED TO THE BASE BUILDING AND THE COMMON WALL WITH THE BASE BUILDING IS MODIFIED BY NO MORE THAN A DOORWAY, THE BASE BUILDING IS NOT REQUIRED TO BE BROUGHT INTO COMPLIANCE.

(5) A VERTICAL AND/OR HORIZONTAL ADDITION TO A BUILDING OR STRUCTURE THAT IS NOT SUBSTANTIAL IMPROVEMENT, AND IS NOT LOCATED IN NONTIDAL WATERS OF THE STATE, IS NOT REQUIRED TO COMPLY WITH THIS SECTION.

[NOTE: SEE "SUBSTANTIAL IMPROVEMENT/SUBSTANTIAL DAMAGE DESK REFERENCE" (FEMA P-758).]

(G) ACCESSORY STRUCTURES.

(1) REPLACEMENT OF AN EXISTING ACCESSORY STRUCTURE LOCATED IN A SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, IS PERMISSIBLE PROVIDED THE SUBJECT STRUCTURE EXISTED AS OF JULY 15, 2014, AND PROVIDED IT IS BEING REPLACED IN KIND OR WITH A SMALLER VERSION LIMITED TO NOT MORE THAN 300 SQUARE FEET IN TOTAL FLOOR AREA. IF THERE IS A DISCRETIONARY ELEMENT IN THE REPLACEMENT LOCATION FOR AN ACCESSORY STRUCTURE, AN ALTERNATIVE LOCATION THAT WOULD PLACE THE STRUCTURE OUTSIDE A SPECIAL FLOOD HAZARD AREAS, INCLUDING FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, IS PREFERRED.

(2) ACCESSORY STRUCTURES SHALL COMPLY WITH THE ELEVATION REQUIREMENTS AND OTHER REQUIREMENTS OF SUBSECTION (D) OF THIS SECTION, THE FLOODPROOFING REQUIREMENTS OF SUBSECTION (E)(2) OF THIS SECTION, OR SHALL:

(I) BE USEABLE ONLY FOR PARKING OF VEHICLES OR LIMITED STORAGE;

(II) BE CONSTRUCTED WITH FLOOD DAMAGE-RESISTANT MATERIALS BELOW THE BASE FLOOD ELEVATION;

(III) BE CONSTRUCTED AND PLACED TO OFFER THE MINIMUM RESISTANCE TO THE FLOW OF FLOODWATERS;

(IV) BE ANCHORED TO PREVENT FLOTATION;

(V) HAVE ELECTRICAL SERVICE AND MECHANICAL EQUIPMENT ELEVATED TO OR ABOVE THE BASE FLOOD ELEVATION; AND

(VI) HAVE FLOOD OPENINGS THAT MEET THE REQUIREMENTS OF SUBSECTION (D)(3) OF THIS SECTION.

**SECTION 16.705. RESERVED.**

**SECTION 16.706. ALTERNATIVE COMPLIANCE.**

(A) GENERAL.

(1) *STANDARD.* THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING, DEPARTMENT OF PUBLIC WORKS, AND DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS SHALL HAVE THE POWER TO CONSIDER AND APPROVE, APPROVE WITH CONDITIONS OR DENY ALTERNATIVE COMPLIANCE FROM THE STRICT APPLICATION OF THE REQUIREMENTS OF THESE REGULATIONS AND SECTION 3115 OF THE HOWARD COUNTY BUILDING CODE UNDER THE ALTERNATIVE COMPLIANCE PROCESS. AN ALTERNATIVE COMPLIANCE SHALL BE APPROVED ONLY IF IT IS DETERMINED TO NOT BE CONTRARY TO THE PUBLIC INTEREST AND WHERE, OWING TO SPECIAL CONDITIONS OF THE LOT OR PARCEL, A LITERAL ENFORCEMENT OF THE PROVISIONS OF THESE REGULATIONS, AN UNNECESSARY HARDSHIP WOULD RESULT.

(2) *CONDITIONS.* UPON CONSIDERATION OF THE PURPOSES OF THESE REGULATIONS, THE INDIVIDUAL CIRCUMSTANCES, AND THE CONSIDERATIONS AND LIMITATIONS OF THIS SECTION, THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING, DEPARTMENT OF PUBLIC WORKS, AND DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS MAY ATTACH SUCH CONDITIONS TO ALTERNATIVE COMPLIANCE AS IT DEEMS NECESSARY TO FURTHER THE PURPOSES OF THESE REGULATIONS.

(3) SPECIFIC PROHIBITIONS. NO ALTERNATIVE COMPLIANCE SHALL BE GRANTED FOR AN ACCESSORY STRUCTURE EXCEEDING 600 SQUARE FEET.

(4) *RECORDED AGREEMENTS REQUIRED.* A SIGNED DECLARATION OF LAND RESTRICTION (NONCONVERSION AGREEMENT) IS REQUIRED AS A CONDITION OF RECEIVING THE ALTERNATIVE COMPLIANCE. THE AGREEMENT MUST BE RECORDED WITH THE DEED. IF AN ALTERNATIVE COMPLIANCE IS GRANTED AND THE ACCESSORY STRUCTURE IS NOT ELEVATED OR DRY FLOOD PROOFED, THE CONDITIONS IN SECTION 16.704(G) OF THIS SUBTITLE APPLY.

(5) *COUNTY NOTIFICATION – LOWEST FLOOR BELOW REQUIRED ELEVATION.* THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING, DEPARTMENT OF PUBLIC WORKS, AND DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS SHALL NOTIFY, IN WRITING, ANY APPLICANT TO WHOM AN ALTERNATIVE COMPLIANCE IS GRANTED TO CONSTRUCT OR SUBSTANTIALLY IMPROVE A BUILDING OR STRUCTURE WITH ITS LOWEST FLOOR BELOW THE ELEVATION REQUIRED BY THESE REGULATIONS THAT THE ALTERNATIVE COMPLIANCE IS TO THE FLOODPLAIN MANAGEMENT REQUIREMENTS OF THESE REGULATIONS ONLY, AND THAT

THE COST OF FEDERAL FLOOD INSURANCE WILL BE COMMENSURATE WITH THE INCREASED RISK, WITH RATES UP TO $25 PER $100 OF INSURANCE COVERAGE.

(6) *RECORDS.* A RECORD OF ALL ALTERNATIVE COMPLIANCE ACTIONS, INCLUDING JUSTIFICATION FOR ISSUANCE SHALL BE MAINTAINED PURSUANT TO SECTION 16.702(B)(11) OF THIS SUBTITLE.

(B) *APPLICATION FOR AN ALTERNATIVE COMPLIANCE.*

(1) THE OWNER OF PROPERTY, OR THE OWNER'S AUTHORIZED AGENT, FOR WHICH AN ALTERNATIVE COMPLIANCE IS SOUGHT SHALL SUBMIT AN APPLICATION FOR AN ALTERNATIVE COMPLIANCE TO THE DEPARTMENT OF PLANNING AND ZONING.

(2) AT A MINIMUM, THE APPLICATION SHALL CONTAIN THE FOLLOWING INFORMATION: NAME, ADDRESS, AND TELEPHONE NUMBER OF THE APPLICANT AND PROPERTY OWNER; LEGAL DESCRIPTION OF THE PROPERTY; PARCEL MAP; DESCRIPTION OF THE EXISTING USE; DESCRIPTION OF THE PROPOSED USE; SITE MAP SHOWING THE LOCATION OF FLOOD HAZARD AREAS, DESIGNATED FLOODWAY BOUNDARIES, FLOOD ZONES, BASE FLOOD ELEVATIONS, AND FLOOD PROTECTION SETBACKS; DESCRIPTION OF THE ALTERNATIVE COMPLIANCE SOUGHT; AND REASON FOR THE ALTERNATIVE COMPLIANCE REQUEST. ALTERNATIVE COMPLIANCE APPLICATIONS SHALL SPECIFICALLY ADDRESS EACH OF THE CONSIDERATIONS IN SUBSECTION (C) OF THIS SECTION.

(3) IF THE APPLICATION IS FOR AN ALTERNATIVE COMPLIANCE TO ALLOW THE LOWEST FLOOR OF A BUILDING OR STRUCTURE BELOW THE APPLICABLE MINIMUM ELEVATION REQUIRED BY THESE REGULATIONS, THE APPLICATION SHALL INCLUDE A STATEMENT SIGNED BY THE OWNER THAT, IF GRANTED, THE CONDITIONS OF THE ALTERNATIVE COMPLIANCE SHALL BE RECORDED ON THE DEED OF THE PROPERTY.

(C) *CONSIDERATIONS FOR ALTERNATIVE COMPLIANCE.* THE FLOODPLAIN ADMINISTRATOR MAY REQUEST COMMENTS ON ALTERNATIVE COMPLIANCE APPLICATIONS FROM MDE (NFIP STATE COORDINATOR) AND SHALL PROVIDE SUCH COMMENTS TO THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING, DEPARTMENT OF PUBLIC WORKS, AND DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS. IN CONSIDERING ALTERNATIVE COMPLIANCE APPLICATIONS, THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING, DEPARTMENT OF PUBLIC WORKS, AND DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS SHALL CONSIDER AND MAKE

FINDINGS OF FACT ON ALL EVALUATIONS, ALL RELEVANT FACTORS, REQUIREMENTS SPECIFIED IN OTHER SECTIONS OF THESE REGULATIONS, AND THE FOLLOWING FACTORS:

(1) THE DANGER THAT MATERIALS MAY BE SWEPT ONTO OTHER LANDS TO THE INJURY OF OTHERS.

(2) THE DANGER TO LIFE AND PROPERTY DUE TO FLOODING OR EROSION DAMAGE.

(3) THE SUSCEPTIBILITY OF THE PROPOSED DEVELOPMENT AND ITS CONTENTS (IF APPLICABLE) TO FLOOD DAMAGE AND THE EFFECT OF SUCH DAMAGE ON THE INDIVIDUAL OWNER.

(4) THE IMPORTANCE OF THE SERVICES TO THE COMMUNITY PROVIDED BY THE PROPOSED DEVELOPMENT.

(5) THE AVAILABILITY OF ALTERNATIVE LOCATIONS FOR THE PROPOSED USE WHICH ARE NOT SUBJECT TO, OR ARE SUBJECT TO LESS, FLOODING OR EROSION DAMAGE.

(6) THE NECESSITY TO THE FACILITY OF A WATERFRONT LOCATION, WHERE APPLICABLE, OR IF THE FACILITY IS A FUNCTIONALLY DEPENDENT USE.

(7) THE COMPATIBILITY OF THE PROPOSED USE WITH EXISTING AND ANTICIPATED DEVELOPMENT.

(8) THE RELATIONSHIP OF THE PROPOSED USE TO THE COMPREHENSIVE PLAN AND HAZARD MITIGATION PLAN FOR THAT AREA.

(9) THE SAFETY OF ACCESS TO THE PROPERTY IN TIMES OF FLOOD FOR PASSENGER VEHICLES AND EMERGENCY VEHICLES.

(10) THE EXPECTED HEIGHTS, VELOCITY, DURATION, RATE OF RISE, AND SEDIMENT TRANSPORT OF THE FLOODWATERS AND THE EFFECTS OF WAVE ACTION, IF APPLICABLE, EXPECTED AT THE SITE.

(11) THE COSTS OF PROVIDING GOVERNMENT SERVICES DURING AND AFTER FLOOD CONDITIONS, INCLUDING MAINTENANCE AND REPAIR OF PUBLIC UTILITIES AND FACILITIES SUCH AS SEWER, GAS, ELECTRICAL, AND WATER SYSTEMS, AND STREETS AND BRIDGES.

(12) THE COMMENTS PROVIDED BY MDE (NFIP STATE COORDINATOR).

(D) *LIMITATIONS FOR GRANTING ALTERNATIVE COMPLIANCE.* THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING, DEPARTMENT OF PUBLIC WORKS, AND DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS SHALL MAKE AN AFFIRMATIVE DECISION ON AN ALTERNATIVE COMPLIANCE REQUEST ONLY UPON:

(1) A SHOWING OF GOOD AND SUFFICIENT CAUSE. GOOD AND SUFFICIENT CAUSE DEALS SOLELY WITH THE PHYSICAL CHARACTERISTICS OF THE PROPERTY AND CANNOT BE BASED ON THE CHARACTER OF THE IMPROVEMENT, THE PERSONAL CHARACTERISTICS OF THE OWNER/INHABITANTS, OR LOCAL PROVISION THAT REGULATE STANDARDS OTHER THAN HEALTH AND PUBLIC SAFETY.

(2) A DETERMINATION THAT FAILURE TO GRANT THE ALTERNATIVE COMPLIANCE WOULD RESULT IN EXCEPTIONAL HARDSHIP DUE TO THE PHYSICAL CHARACTERISTICS OF THE PROPERTY. INCREASED COST OR INCONVENIENCE OF MEETING THE REQUIREMENTS OF THESE REGULATIONS DOES NOT CONSTITUTE AN EXCEPTIONAL HARDSHIP TO THE APPLICANT.

(3) A DETERMINATION THAT THE GRANTING OF AN ALTERNATIVE COMPLIANCE FOR DEVELOPMENT WITHIN ANY DESIGNATED FLOODWAY, OR FLOOD HAZARD AREA WITH BASE FLOOD ELEVATIONS BUT NO DESIGNATED FLOODWAY, WILL NOT RESULT IN INCREASED FLOOD HEIGHTS BEYOND THAT WHICH IS ALLOWED IN THESE REGULATIONS.

(4) A DETERMINATION THAT THE GRANTING OF AN ALTERNATIVE COMPLIANCE WILL NOT RESULT IN ADDITIONAL THREATS TO PUBLIC SAFETY; EXTRAORDINARY PUBLIC EXPENSE, NUISANCES, FRAUD OR VICTIMIZATION OF THE PUBLIC, OR CONFLICT WITH EXISTING LOCAL LAWS.

(5) A DETERMINATION THAT THE BUILDING, STRUCTURE OR OTHER DEVELOPMENT IS PROTECTED BY METHODS TO MINIMIZE FLOOD DAMAGES.

(6) A DETERMINATION THAT THE ALTERNATIVE COMPLIANCE IS THE MINIMUM NECESSARY TO AFFORD RELIEF, CONSIDERING THE FLOOD HAZARD.

(E) ALTERNATIVE COMPLIANCE PROHIBITED.

(1) AN ALTERNATIVE COMPLIANCE SHALL NOT BE ISSUED WITHIN ANY DESIGNATED REGULATORY FLOODWAY IF ANY INCREASE IN FLOOD LEVELS DURING THE BASE FLOOD DISCHARGE WOULD RESULT.

(2) AN ALTERNATIVE COMPLIANCE MAY NOT BE ISSUED FOR ANY PROPERTY LOCATED IN THE TIBER BRANCH WATERSHED UNLESS THE ALTERNATIVE COMPLIANCE:

(I) WAS REQUESTED ON OR BEFORE NOVEMBER 7, 2016;

(II) IS NECESSARY FOR THE RECONSTRUCTION OF EXISTING STRUCTURES OR INFRASTRUCTURE DAMAGED BY FLOOD, FIRE, OR OTHER DISASTER;

(III) IS NECESSARY FOR THE CONSTRUCTION OF A STORMWATER MANAGEMENT OR FLOOD CONTROL FACILITY AS PART OF A REDEVELOPMENT PROJECT;

(IV) IS NECESSARY FOR THE RETROFIT OF EXISTING FACILITIES OR INSTALLATION OF NEW FACILITIES INTENDED SOLELY TO IMPROVE STORMWATER MANAGEMENT OR FLOOD CONTROL FOR EXISTING DEVELOPMENT;

(V) IS REQUESTED AS PART OF A DEVELOPMENT PROPOSAL AND THE DIRECTOR OF THE DEPARTMENT OF PUBLIC WORKS OR HIS DESIGNEE SERVING AS FLOODPLAIN ADMINISTRATOR, FINDS THAT UPON COMPLETION OF CONSTRUCTION OF THE DEVELOPMENT, WHICH MAY INCLUDE OFF-SITE IMPROVEMENTS WITHIN THE TIBER BRANCH WATERSHED, THERE WILL BE IMPROVEMENT TO FLOOD CONTROL IN THE TIBER BRANCH WATERSHED AT LEAST TEN PERCENT MORE THAN WHAT WOULD OTHERWISE BE REQUIRED BY LAW; OR

(VI) IS NECESSARY FOR THE CONSTRUCTION OF AN ADDITION, GARAGE, DRIVEWAY OR OTHER ACCESSORY USE IMPROVEMENT OF AN EXISTING RESIDENTIAL STRUCTURE ON PROPERTY LOCATED WITHIN THE TIBER BRANCH WATERSHED THAT INCREASES THE SQUARE FOOTAGE OF THE IMPERVIOUS SURFACES ON THE PROPERTY BY NO MORE THAN 25 PERCENT OVER THE SQUARE FOOTAGE OF IMPERVIOUS SURFACES THAT EXISTED ON THE PROPERTY PRIOR TO THE EFFECTIVE DATE OF THIS BILL.

**SECTION 16.707. ENFORCEMENT.**

(A) COMPLIANCE REQUIRED.

(1) NO BUILDING, STRUCTURE OR DEVELOPMENT SHALL HEREAFTER BE LOCATED, ERECTED, CONSTRUCTED, RECONSTRUCTED, IMPROVED, REPAIRED, EXTENDED, CONVERTED, ENLARGED OR ALTERED WITHOUT FULL COMPLIANCE WITH THESE REGULATIONS AND ALL OTHER APPLICABLE REGULATIONS, UNLESS APPROVED BY AN ALTERNATIVE COMPLIANCE OR NECESSARY DISTURBANCE UNDER SECTION 16.115.

(2) FAILURE TO OBTAIN A PERMIT SHALL BE A VIOLATION OF THESE REGULATIONS AND SHALL BE SUBJECT TO PENALTIES IN ACCORDANCE WITH SUBSECTION (C) OF THIS SECTION.

(3) PERMITS ISSUED ON THE BASIS OF PLANS AND APPLICATIONS APPROVED BY THE DEPARTMENT OF INSPECTIONS LICENSES AND PERMITS ON BEHALF OF THE FLOODPLAIN ADMINISTRATOR AUTHORIZE ONLY THE SPECIFIC ACTIVITIES SET FORTH IN SUCH APPROVED PLANS AND APPLICATIONS OR AMENDMENTS THERETO. USE, ARRANGEMENT, OR CONSTRUCTION OF SUCH SPECIFIC ACTIVITIES THAT ARE CONTRARY TO THAT AUTHORIZATION SHALL BE DEEMED A VIOLATION OF THESE REGULATIONS.

(B) NOTICE OF VIOLATION AND STOP WORK ORDER. IF THE DEPARTMENT OF INSPECTIONS LICENSES AND PERMITS DETERMINES THAT THERE HAS BEEN A VIOLATION OF ANY PROVISION OF THESE REGULATIONS, THE DEPARTMENT OF INSPECTIONS LICENSES AND PERMITS SHALL GIVE NOTICE OF SUCH VIOLATION TO THE OWNER, THE OWNER'S AUTHORIZED AGENT, AND THE PERSON RESPONSIBLE FOR SUCH VIOLATION, AND MAY ISSUE A STOP WORK ORDER. THE NOTICE OF VIOLATION OR STOP WORK ORDER SHALL BE IN WRITING AND SHALL:

(1) INCLUDE A LIST OF VIOLATIONS, REFERRING TO THE SECTION OR SECTIONS OF THESE REGULATIONS THAT HAVE BEEN VIOLATED;

(2) ORDER REMEDIAL ACTION WHICH, IF TAKEN, WILL AFFECT COMPLIANCE WITH THE PROVISIONS OF THESE REGULATIONS;

(3) SPECIFY A REASONABLE PERIOD OF TIME TO CORRECT THE VIOLATION;

(4) ADVISE THE RECIPIENTS OF THE RIGHT TO APPEAL; AND

(5) BE SERVED IN PERSON; OR

(6) BE POSTED IN A CONSPICUOUS PLACE IN OR ON THE PROPERTY AND SENT BY REGISTERED OR CERTIFIED MAIL TO THE LAST KNOWN MAILING ADDRESS, RESIDENCE, OR PLACE OF BUSINESS OF THE RECIPIENTS.

(C)VIOLATIONS AND PENALTIES. VIOLATIONS OF THESE REGULATIONS OR FAILURE TO COMPLY WITH THE REQUIREMENTS OF THESE REGULATIONS OR ANY CONDITIONS ATTACHED TO A PERMIT OR ALTERNATIVE COMPLIANCE SHALL CONSTITUTE A MISDEMEANOR. ANY PERSON RESPONSIBLE FOR A VIOLATION SHALL COMPLY WITH THE NOTICE OF VIOLATION OR STOP WORK ORDER. WHERE THERE IS ANY VIOLATION OF THIS SUBTITLE OR ANY ACTION TAKEN THEREUNDER, THE COUNTY SHALL INSTITUTE APPROPRIATE ACTION TO PREVENT, ENJOIN, OR COMPEL COMPLIANCE WITH THE PROVISIONS OF THIS SUBTITLE. IN ADDITION TO AND CONCURRENT WITH ALL OTHER REMEDIES AT LAW OR EQUITY, THE COUNTY MAY ENFORCE THE PROVISIONS OF THIS SUBTITLE WITH CIVIL PENALTIES PURSUANT TO THE PROVISIONS OF TITLE 24, "CIVIL PENALTIES" OF THE HOWARD COUNTY CODE. A VIOLATION IS A CLASS B OFFENSE. EACH DAY A VIOLATION CONTINUES SHALL BE CONSIDERED A SEPARATE OFFENSE. NOTHING HEREIN CONTAINED SHALL PREVENT HOWARD COUNTY, MARYLAND, FROM TAKING SUCH OTHER LAWFUL ACTION AS IS NECESSARY TO PREVENT OR REMEDY ANY VIOLATION.

**SECTION 16.708. SEVERABILITY.**

SHOULD ANY SECTION OR PROVISION OF THESE REGULATIONS BE DECLARED BY A COURT OF COMPETENT JURISDICTION TO BE UNCONSTITUTIONAL OR INVALID, SUCH DECISION SHALL NOT AFFECT THE VALIDITY OF THIS SUBTITLE OR SUBTITLE 1 OF TITLE 16 AS A WHOLE, OR ANY PART THEREOF OTHER THAN THE PART SO DECLARED TO BE UNCONSTITUTIONAL OR INVALID.

# Title 16. Planning, Zoning and Subdivisions and Land Development Regulations.

## Subtitle 12. Forest Conservation.

### Section 16.1201. Definitions.

Except as provided in subsection (ff) of this section, words and phrases used in this subtitle have their usual meaning unless defined in the Subdivision and Land Development Regulations as set forth in subtitle 1 of this title or as follows in this section:

(v) *Net Tract Area.* "Net tract area" means the total area to the nearest one-tenth acre, whether forested or not, of a proposed development, exclusive of any 100-year floodplain INCLUDING ANY SPECIAL FLOOD HAZARD AREAS, WHICH MAY CONSIST OF FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, utility transmission line easements, or preservation parcel as referenced in the zoning regulations. "Net tract area" is to be used in calculating any reforestation or afforestation obligations that may be created by the proposed development.

(bb) *Stream Restoration Project.* "Stream Restoration Project" means an activity that:

(1) Is designed to stabilize stream banks or enhance stream function or habitat located within an existing stream, waterway or floodplain;

(2) Avoids and minimizes impacts to forests and provides for replanting on-site an equivalent number of trees to the number removed by the project;

(3) May be performed under a municipal separate storm sewer system permit, a watershed implementation plan growth offset, or another plan administered by the state or Howard County to achieve or maintain water quality standards; and

(4) Is not performed to satisfy stormwater management, wetlands mitigation, or any other regulatory requirement associated with proposed development activity.

### Section 16.1205. Forest retention priorities.

(b) *On-Site Forest Retention Priorities.* The following vegetation and specific areas are considered priority and are listed in order of preference for on-site retention and protection in the County. Subdivision, site

development, and grading shall leave the following vegetation and specific areas in an undisturbed condition unless demonstrated, to the satisfaction of the Department, that reasonable efforts have been made to protect them and the plan cannot be reasonably altered or that forest planting in an alternate location would have greater environmental benefit:

(1) Howard County Green Infrastructure Network.

(2) 100-year floodplain INCLUDING ANY SPECIAL FLOOD HAZARD AREAS, WHICH MAY CONSIST OF FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, as defined in the Subdivision Regulations.

(3) Stream buffers as defined in the Subdivision Regulations;

(4) Forested wetlands and wetland buffers as defined in the Subdivision Regulations;

(5) Critical habitat areas and forest corridors with a minimum width of 300 feet, where practical, for wildlife movement;

(6) Steep slopes as defined in the Subdivision Regulations and slopes of 15 percent or greater with a soil erodibility factor greater than 0.35;

(7) Forest contiguous with the priority areas listed above;

(8) Forest contiguous with off-site forest, if the off-site forest is also protected by a Forest Conservation Easement; and

(9) Property line and right-of-way buffers, particularly adjacent to scenic roads.

**Section 16.1208. Reforestation and afforestation location priorities, preferred location, and preferred methods.**

(a) *Location Priorities.* The following are priority locations for reforestation and afforestation, and are listed in order of preference. The Department may approve lower priority locations on this list when such locations better achieve the intent of this subtitle or County land use regulations. If off-site planting would have greater environmental benefit, the Department may approve off-site reforestation or afforestation in high-priority locations within Howard County, preferably within the same subbasin or watershed:

(1) Establish or enhance forest in the Howard County Green Infrastructure Network;

(2) Establish or enhance forest in 100-year floodplains INCLUDING ANY SPECIAL FLOOD HAZARD AREAS, WHICH MAY CONSIST OF FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS, and buffers to intermittent and perennial streams as defined in the Subdivision Regulations;

(3) Establish or enhance forest in wetlands and wetland buffers as defined in the Subdivision Regulations;

(4) Establish or enhance critical habitat buffers and forest corridors for wildlife movement, the corridors, where practical, being a minimum of 300 feet in width;

(5) Establish plantings to stabilize slopes of 25 percent or greater and slopes of 15 percent or greater with a soil K value greater than 0.35;

(6) Establish forest areas adjacent to existing forests to increase the overall area of contiguous forest cover;

(7) Establish forest areas between small forest and tree stands to build a forest community; and

(8) Establish buffers along property lines between differing land uses when appropriate, or adjacent to highways or utility rights-of-way, particularly adjacent to scenic roads.

## Title 18. Public Works.

## Subtitle 9. Stormwater Management.

**Section 18.901. Definitions.**

The following terms have the meanings indicated:

(a) *Administration* means the Maryland Department of the Environment (MDE) Water Management Administration (WMA).

(b) *Adverse impact* means any deleterious effect on waters or wetlands, including their quality, quantity, surface area, species composition, aesthetics or usefulness for human or natural uses which are or may potentially be harmful or injurious to human health, welfare, safety or property, to biological productivity, diversity or stability, or which unreasonably interfere with the enjoyment of life or property, including outdoor recreation.

(c) *Agricultural land management practices* means those methods and procedures used in the cultivation of land in order to further crop and livestock production and conservation of related soil and water resources.

(d) *Applicant* means a person, firm, or governmental agency who applies for approval of a project to carry out construction activities involving stormwater management.

(e) *Approving agency* means the entity responsible for the review and approval of stormwater management plans. As set forth in the Howard County Design Manual and depending on the

nature of the project, the approving agency is the Department of Planning and Zoning or the Department of Public Works.

(f) *Best management practice (BMP)* means any structural device or nonstructural practice designed to temporarily store or treat stormwater runoff in order to mitigate flooding, reduce pollution, or provide other amenities.

(g) *Channel protection storage volume (cPv)* means the volume used to design structural management practices to control stream channel erosion. Methods for calculating the channel protection storage volume are specified in the 2000 Maryland Stormwater Design Manual.

(h) *Clearing* means the removal of trees and brush from the land, but shall not include the ordinary mowing of grass.

(i) *Concept stage* means the first stage of the stormwater management design process. Approval of the environmental concept plan constitutes the approval of the concept stage.

(j) *County* means Howard County, Maryland.

(k) *Design manual* means the 2000 Maryland Stormwater Design Manual, and all subsequent revisions, that serves as the official guide for stormwater management principles, methods, and practices. The 2000 Maryland Stormwater Design Manual VOLUME I AND II MAY be supplemented by the Howard County Design Manual.

(l) *Develop land* means to change the runoff characteristics of a parcel of land or lot in conjunction with residential, commercial, industrial, or institutional construction or alteration.

(m) *Drainage area* means an area contributing runoff to a single point measured in a horizontal plane, which is enclosed by a ridge line.

(n) *Easement* means a grant or reservation by the owner of land for the use of such land by others for a specific purpose, and which shall be recorded in the land records of Howard County.

(o) *Environmental concept plan* means the first of three required plan approvals that includes the information necessary to allow an initial evaluation of a proposed project.

(p) *Environmental site design (ESD)* means using small-scale stormwater management practices, nonstructural techniques, and better site planning to mimic natural hydrologic

runoff characteristics and minimize the impact of land development on water resources. Methods for designing ESD practices are specified in the design manual.

(q) *Exemption* means those land development activities that are not subject to the stormwater management requirements of this subtitle.

(r) *Extended detention* means a stormwater design feature that provides gradual release of a volume of water in order to increase settling of pollutants and protect downstream channels from frequent storm events. Methods for designing extended detention BMPs are specified in the design manual.

(s) *Extreme flood volume (Qf)* means the storage volume required to control those infrequent but large storm events in which the overbank flows reach or exceed the boundaries of the 100-year floodplain INCLUDING ANY SPECIAL FLOOD HAZARD AREA, WHICH MAY CONSIST OF FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS.

(t) *Final stage* means the third stage of the stormwater management design process. Approval of the grading plan constitutes the approval of the final stage.

(u) *Flow attenuation* means prolonging the flow time of runoff to reduce the peak discharge.

(v) *Grading* means any act by which soil is cleared, stripped, stockpiled, excavated, scarified, filled, or any combination thereof.

(w) *Grading plan* means the last of a multi-step plan-approval process that includes the information necessary to allow all approvals and permits to be issued by the approving agency.

(x) *Impervious area* or *impervious surface* means any surface that does not allow stormwater to infiltrate into the ground.

(y) *Infiltration* means the passage or movement of water into the soil surface.

(z) *Maximum extent practicable (MEP)* means designing stormwater management systems so that all reasonable opportunities for using ESD planning techniques and treatment practices are exhausted and, only where absolutely necessary, implementing a structural BMP.

(aa) *Off-site stormwater management* means the design and construction of a facility necessary to control stormwater from one or more properties other than the one on which the stormwater management facility lies.

(bb) *On-site stormwater management* means the design and construction of a facility necessary to control stormwater from one property within the boundary of the subject property.

(cc) *Overbank flood protection volume (Qp)* means the volume controlled by structural practices to prevent an increase in the frequency of the out of bank flooding by development. Methods for calculating the overbank flood protection volume are specified in the design manual.

(dd) *Person* means the Federal Government, the State, any County, Municipal Corporation, or other political subdivision of the State, or any of their units; an individual, receiver, trustee, guardian, executor, administrator, fiduciary, or representative of any kind; or any partnership, firm, association, public or private corporation, or any other entity.

(ee) *Planning techniques* means a combination of strategies employed early in project design to reduce the impact from development and to incorporate natural features into a stormwater management plan.

(ff) *Private stormwater management facility* means any best management practice which is not to be owned and maintained by the County.

(gg) *Recharge volume (REv)* means that portion of the water quality volume used to maintain groundwater recharge rates at development sites. Methods for calculating the recharge volume are specified in the design manual.

(hh) *Redevelopment* means any construction, alteration, or improvement performed on sites where existing site impervious area exceeds 40 percent and where existing land use is commercial, industrial, institutional, or multifamily.

(ii) *Retrofitting* means the implementation of ESD practices, the construction of a structural BMP in a previously developed area, the modification of an existing structural BMP, or the implementation of a nonstructural practice to improve water quality over current conditions.

(jj) *Sediment* means soil or other surficial materials transported or deposited by the action of wind, water, ice, or gravity as a product of erosion.

(kk) *Site* means a tract of land, lot or parcel of land or combination of tracts, lots, or parcels of land, which are in one ownership, or are contiguous and in diverse ownership where development is to be performed as part of a unit, subdivision or project.

(ll) *Site development stage* means the second stage of the stormwater management design process. Approval of one of the following plans constitutes the approval of the site development stage: sketch plan, preliminary plan, preliminary equivalent sketch plan, final plan, or site development plan as defined in section 16.108 of the Howard County

Subdivision and Land Development Regulations. The applicable plan will act as the second of three required plan approvals that include the information necessary to allow a detailed evaluation of a proposed project.

(mm) *Stabilization* means the prevention of soil movement by any of various vegetative or structural means.

(nn) *Stormwater management design process* means the three stage process required by MDE for the review of stormwater management. The three stages include concept, site development and final stages as defined herein.

(oo) *Stormwater management system* means natural areas, ESD practices, stormwater management measures, and any other structure through which stormwater flows, infiltrates, or discharges from a site.

(pp) *Stripping* means any activity which removes the vegetative cover including tree removal, clearing, grubbing, and storage or removal of topsoil.

(qq) *Waiver* means the reduction of stormwater management requirements for a specific development on a case-by-case basis.

(rr) *Watershed* means the total drainage area contributing runoff to a single point.

(ss) *Watershed management plan* means a plan developed by the County for the purpose of implementing different stormwater management policies for waivers and redevelopment. A watershed management plan shall contain the items set forth in section 18.908 of this subtitle.

(tt) *Watershed protection and restoration fee* means a fee, as set forth in title 20, subtitle 11 of this Code.

(uu) *Water quality volume (WQv)* means the storage needed to capture and treat the runoff from 90 percent of the average annual rainfall at a development site. Methods for calculating the water quality volume are specified in the design manual.

**Section 18.905. Stormwater management design process.**

(b) *Contents and Submission of Stormwater Management.* Stormwater management design shall contain the following:

(1) A concept stage that provides sufficient information for an initial assessment of the proposed project and whether stormwater management can be provided according to

this subtitle. Plans submitted for concept stage approval shall include, but are not limited to:

(i) A map at a scale specified by the Department of Planning and Zoning showing site location, existing natural features, water and other sensitive resources, topography, and natural drainage patterns;

(ii) The anticipated location of all proposed impervious areas, buildings, roadways, parking, sidewalks, utilities, and other site improvements;

(iii) The location of the proposed limit of disturbance, erodible soils, steep slopes, and areas to be protected during construction;

(iv) Preliminary estimates of stormwater management requirements, the selection and location of ESD practices to be used, and the location of all points of discharge from the site;

(v) A narrative that supports the concept design and describes how ESD will be implemented to the MEP; and

(vi) Any other information required by the County.

(2) Following concept stage approval by the County, the owner or developer shall submit plans meeting requirements for the site development stage.

Plans submitted for site development stage approval shall be of sufficient detail to allow the plan to be reviewed and shall include, without limitation, the following items:

(i) All information provided during the concept stage;

(ii) Site layout, exact impervious area locations and acreages, proposed topography, delineated drainage areas at all points of discharge from the site, and stormwater volume computations for ESD practices and quantity control structures;

(iii) A proposed erosion and sediment control plan that contains the construction sequence, any phasing necessary to limit earth disturbances and impacts to natural resources, and an overlay plan showing the types and locations of ESD and erosion and sediment control practices to be used;

(iv) A narrative that supports the site design, describes how ESD will be used to meet the minimum control requirements, and justifies any proposed structural stormwater management measure; and

(v) Any other information required by the County.

(3) Following site development stage approval by the County, the owner or developer shall submit plans meeting requirements for final stage. Plans submitted for final stage approval shall be of sufficient detail to allow all approvals and permits to be issued according to the following:

(i) Final erosion and sediment control plans shall be submitted according to COMAR 26.17.01.05; and

(ii) Final stormwater management design shall be submitted for approval in the form of construction drawings and shall be accompanied by a report that includes sufficient information to evaluate the effectiveness of the proposed runoff control design.

(4) Reports submitted for final stormwater management design shall include, but are not limited to:

(i) Geotechnical investigations including soil maps, borings, site specific recommendations, and any additional information necessary for the final stormwater management design;

(ii) Drainage area maps depicting post development runoff flow path and land use;

(iii) Hydrologic computations of the applicable ESD and unified sizing criteria according to the design manual for all points of discharge from the site;

(iv) Hydraulic and structural computations for all ESD practices and structural stormwater management measures to be used;

(v) A narrative that supports the final stormwater management design; and

(vi) Any other information required by the County.

(5) Construction drawings submitted for final stormwater management design approval shall include, but are not limited to:

(i) A vicinity map;

(ii) Existing and proposed topography and proposed drainage areas, including areas necessary to determine downstream analysis for proposed stormwater management facilities;

(iii) Any proposed improvements including location of buildings or other structures, impervious surfaces, storm drainage facilities, and all grading;

(iv) The location of existing and proposed structures and utilities;

(v) Any easements and rights-of-way;

(vi) The delineation, if applicable, of the 100-year floodplain INCLUDING ANY SPECIAL FLOOD HAZARD AREAS, WHICH MAY CONSIST OF FEMA SPECIAL FLOOD HAZARD AREAS AND COMMUNITY SPECIAL FLOOD HAZARD AREAS and any on-site wetlands;

(vii) Structural and construction details including representative cross sections for all components of the proposed drainage system or systems, and stormwater management facilities;

(viii) All necessary construction specifications;

(ix) A sequence of construction;

(x) Data for total site area, disturbed area, new impervious area, and total impervious area;

(xi) A table showing the ESD and unified sizing criteria volumes required in the design manual;

(xii) A table of materials to be used for stormwater management facility planting;

(xiii) All soil boring logs and locations;

(xiv) An inspection and maintenance schedule;

(xv) Certification by the owner/developer that all stormwater management construction will be done according to this plan;

(xvi) An as-built certification signature block to be executed after project completion; and

(xvii) Any other information required by the County.

(6) If a stormwater management plan involves direction of some or all runoff off of the site, the developer shall obtain from adjacent property owners any easements or other necessary property interests concerning flowage of water.

***Section 3. And Be It Further Enacted*** *by the County Council of Howard County, Maryland that this Act shall become effective 61 days after its enactment.*

BY THE COUNCIL

This Bill, having been approved by the Executive and returned to the Council, stands enacted on November 2, 2026.

Michelle R. Harrod, Administrator to the County Council

BY THE COUNCIL

This Bill, having been passed by the yeas and nays of two-thirds of the members of the Council notwithstanding the objections of the Executive, stands enacted on _____, 2026.

_____
Michelle R. Harrod, Administrator to the County Council

BY THE COUNCIL

This Bill, having received neither the approval nor the disapproval of the Executive within ten days of its presentation, stands enacted on _____, 2026.

_____
Michelle R. Harrod, Administrator to the County Council

BY THE COUNCIL

This Bill, not having been considered on final reading within the time required by Charter, stands failed for want of consideration on _____, 2026.

_____
Michelle R. Harrod, Administrator to the County Council

BY THE COUNCIL

This Bill, having been disapproved by the Executive and having failed on passage upon consideration by the Council stands failed on _____, 2026.

_____
Michelle R. Harrod, Administrator to the County Council

BY THE COUNCIL

This Bill, the withdrawal of which received a vote of two-thirds (2/3) of the members of the Council, is withdrawn from further consideration on _____, 2026.

_____
Michelle R. Harrod, Administrator to the County Council