CITY OF BRUNSWICK

1 W. Potomac Street • Brunswick, Maryland 21716 • (301) 834-7500

ORDINANCE NUMBER 470

AN ORDINANCE OF THE MAYOR AND COUNCIL OF BRUNSWICK TO REPEAL THE CURRENT CITY OF BRUNSWICK FLOODPLAIN ORDINANCE AND TO ADOPT A NEW FLOODPLAIN ORDINANCE ESTABLISHING FLOODPLAIN ZONES WITHIN THE COMMUNITY OF THE CITY OF BRUNSWICK; REQUIRING A PERMIT FOR ALL DEVELOPMENT WITHIN THE DESIGNATED FLOODPLAIN ZONE; PROVIDING CERTAIN MINIMUM STANDARDS FOR CONSTRUCTION WITHIN THE FLOODPLAIN ZONE; SETTING FORTH STANDARDS AND PROCEDURES FOR SUBMISSION AND APPROVAL OF PLANS FOR DEVELOPMENT; AND ESTABLISHING PENALTIES FOR FAILURE TO COMPLY WITH THE PROVISIONS OF THIS ORDINANCE.

WHEREAS, the current City of Brunswick Floodplain Ordinance was adopted and approved by the Mayor and Council of Brunswick ("**Mayor and Council**") on July 11, 1989, and amended March 24, 1992 and is codified as Section 7-1301 of the City of Brunswick Code of Ordinances (2006); and

WHEREAS, the U.S. Department of Homeland Security's Federal Emergency Management Agency ("**FEMA**") has issued a Flood Insurance Study (FIS) and Flood Insurance Rate Map (FIRM) for the City of Brunswick, both of which shall be effective September 19, 2007; and

WHEREAS, FEMA requires the City of Brunswick adopt or show evidence of adoption of floodplain management regulations that meet FEMA standards prior to September 19, 2007; and

WHEREAS, the Mayor and Council desire adoption of a new Floodplain Ordinance, with the purposes of such Floodplain Ordinance being to protect human life and health, minimize property damage, encourage appropriate construction practices to minimize future damage,

protect individuals from unwittingly buying land subject to flood hazards, and to protect water supply, sanitary sewage disposal, and natural drainage; and

WHEREAS, by Resolution No. 07-10 dated August 14, 2007, the Mayor and Council initiated the adoption of a new Floodplain Ordinance and referred the matter of adoption of a new Floodplain Ordinance to the City of Brunswick Planning Commission ("**Planning Commission**") for consideration and recommendation; and

WHEREAS, a duly advertised public hearing of the Planning Commission was held on August 27, 2007, at which public hearing the Planning Commission accepted the Mayor and Council's Resolution No. 07-10; and received, reviewed, studied, researched and considered the City Staff's Report and recommendations, the Draft Floodplain Ordinance ("**Draft Ordinance**"), comments received from the aforesaid government entities, and public comments; and

WHEREAS, at the conclusion of its public hearing, by the affirmative votes of a majority of its members, the Planning Commission approved the Draft Ordinance and recommended to the Mayor and Council that it be adopted; and

WHEREAS, the Planning Commission subsequently submitted to the Mayor and Council the Draft Ordinance and its report, including comments received by government entities, with the Planning Commission's recommendation of approval; and

WHEREAS, at a public hearing on August 28, 2007, notice of the time and place of which together with a summary of the Draft Ordinance was published in the Brunswick Citizen, a newspaper of general circulation in Brunswick, once each week for two (2) successive weeks with the first such publication of notice having appeared at least fourteen (14) days prior to the public hearing, the Draft Ordinance, the Planning Commission's Resolution and report, the City Planning Staff's Report, and public comment was considered, discussed and approved by the Council with the concurrence of the Mayor.

BE IT ORDAINED AND ENACTED BY THE MAYOR AND COUNCIL OF BRUNSWICK, THAT PURSUANT TO THE AUTHORITY GRANTED TO IT BY ARTICLE 23A AND ARTICLE 66B OF THE ANNOTATED CODE OF MARYLAND AND SECTION 16-3 OF THE CHARTER OF THE CITY OF BRUNSWICK:

SECTION I: That the City of Brunswick Floodplain Ordinance, incorporated as Section 7-1301 of the City of Brunswick Code of Ordinances (2006), is repealed.

SECTION II: That the new City of Brunswick Floodplain Ordinance and all attachments thereto or referenced therein is hereby adopted as follows in **EXHIBIT A** attached hereto and incorporated herein.

SECTION III: That Section 7-1301 of the Code of Ordinances is hereby amended to read as follows:

INCLUSION OF FLOODPLAIN ORDINANCE BY REFERENCE

THE CITY OF BRUNSWICK FLOODPLAIN ORDINANCE, ADOPTED 2007, AND ALL AMENDMENTS AND REVISIONS THERETO ARE HEREBY INCORPORATED INTO THE BRUNSWICK CODE OF ORDINANCES BY REFERENCE.

SECTION IV: This Ordinance shall become effective September 9, 2007.

PASSED this 28th day of August, 2007 by a vote of 6 for; 0 against, 0 abstaining and 0 absent.

ATTEST:

David B. Dunn
City Administrator

COUNCIL OF THE CITY OF BRUNSWICK

By: Walter S. Stull, III
Walter S. Stull, III
Councilman

APPROVED this 28th day of August, 2007.

ATTEST:

David B. Dunn
City Administrator

Carroll A. Jones
Mayor
August 28, 2007

EXHIBIT A

CITY OF BRUNSWICK

FLOODPLAIN ORDINANCE

Approved August 28, 2007
Effective September 9, 2007

Mayor and Council:
Carroll A. Jones, Mayor
Wayne Allgaier
Jeremy N. Biser
Ronald W. Bruchey
M. Beth Johnson
Thomas L. Smith
Walter S. Stull III

Planning Commission:
Edward A. Gladstone, Chair
Connie J. Koenig, Vice Chair
Walter S. Stull III, *ex officio*, Secretary
Donald A. Krigbaum
Wayne S. Dougherty
Ellis Burruss, Alternate

Brunswick Planning Staff:
Richard L. Stup, Planning and Zoning Administrator
Jeffrey D. Love, Development Review Planner

Frederick County Planning Staff:
Shawna Lemonds, Frederick County Planning Department Liaison

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A-4 NFIP FIRM MAP NUMBER 24021C0415D, September 19, 2007

Article I - Purpose and General Provisions

Sect. 1.1 Purpose and Authority

The purposes of this Ordinance are to protect human life and health, minimize property damage, encourage appropriate construction practices to minimize future damage, protect individuals from unwittingly buying land subject to flood hazards, and to protect water supply, sanitary sewage disposal, and natural drainage. The prevention of unwise development in areas subject to flooding will reduce financial burdens to the community and the State, and will prevent future displacement and suffering of its residents. This protection is achieved through the review of all activities proposed within identified floodplains and by the issuance of permits for those activities that comply with the objectives of this Ordinance.

Floodplains are an important asset to the community. They perform vital natural functions such as temporary storage of floodwaters, moderation of peak flood flows, maintenance of water quality, groundwater recharge, prevention of erosion, habitat for diverse natural wildlife populations, recreational opportunities, and aesthetic quality. These functions are best served if floodplains are kept in their natural state. Wherever possible, the natural characteristics of floodplains and their associated wetlands and water bodies should be preserved and enhanced.

This Ordinance provides a unified, comprehensive approach to floodplain management which addresses these natural floodplain functions and the Federal and State programs concerned with floodplain management. These programs are: the National Flood Insurance Program (44 CRF 59-79); the State's Waterway Construction Permit Program for non-tidal floodplains; the State's Tidal and Non-tidal Wetlands Permit Programs; the U.S Army Corps of Engineers' Section 10 and 404 Permit Programs; the State's Coastal Zone Management Program; and the Maryland Economic Growth, Resource Protection, and Planning Act of 1992. Decisions to alter floodplains, especially floodways and stream channels, should be the result of careful planning processes which evaluate resource conditions and human needs.

Sect. 1.2 Abrogation and Greater Restrictions

This Ordinance supersedes any ordinance in effect in flood-prone areas. However, any other ordinance shall remain in full force to the extent that its provisions are more restrictive.

Sect. 1.3 Applicability

Any person or entity proposing to do any development within the floodplain zone

regulated by this Ordinance must first obtain a permit for that development from the Local Permitting Official, as defined in this ordinance, and must comply with all provisions of this Ordinance.

Sect. 1.4 Partial Invalidity and Severability

If any part of this Ordinance is declared invalid, the remainder of the Ordinance shall not be affected and shall remain in force.

Sect. 1.5 Disclaimer of Liability

The degree of flood protection provided by this Ordinance is considered reasonable for regulatory purposes and is based on engineering experience and scientific methods of study. Floods of greater magnitude may occur or flood heights may be increased by man-made or natural causes. This Ordinance does not imply that flooding will not occur outside of the delineated floodplain zone, nor that permitted development and land uses within the floodplain will be free of flooding and associated flood damage. This Ordinance does not create liability on the part of the Community, any officer, or employee thereof for any damage which may result from reliance on this Ordinance.

Article II - Definitions

2.1 Accessory structure - a detached structure on the same parcel of property as the principal structure, the use of which is incidental to the principal structure, e.g. a shed or detached garage.

2.2 Base Flood - the 100-year frequency flood event as indicated in the Flood Insurance Study, as amended, the elevation of which is used for regulatory purposes in this Ordinance.

2.3 Basement - an enclosed area which is below grade on all four sides.

2.4 Certificate of Occupancy or Use - a permit issued by the Local Permitting Official to legally occupy or use a building for the intended purpose.

2.5 Development - any man-made change to improved or unimproved real estate, including, but not limited to buildings and other structures, dredging, fill, grading, paving, clearing, excavation, dumping, extraction, or storage of equipment or materials. Development includes subdivision of land.

2.6 Elevation Certificate - form supplied by the Federal Emergency Management Agency (FEMA) to certify as-built elevations of structures above mean sea level (NGVD).

2.7 Flood - general and temporary condition of partial or complete inundation of normally dry land areas from overflow of inland or tidal waters, or rapid unusual accumulation of runoff from any source.

2.8 Flood Insurance Rate Map (FIRM) - map which depicts the minimum special flood hazard area to be regulated by this Ordinance (unless a Floodway Map is available).

2.9 Floodplain - that land typically adjacent to a body of water with ground surface elevations that are inundated by the base flood.

2.10 Floodproofing - any combination of structural or nonstructural changes which reduce or eliminate flood damage to improved property.

2.11 Floodproofing Certificate - form supplied by FEMA to certify that a building has been designed and constructed to be structurally dry floodproofed to the Flood Protection Elevation.

2.12 Flood Protection Elevation (FPE) - the elevation of the base flood plus two feet freeboard.

2.13 Floodway - the channel and adjacent land area required to discharge the waters of the 100-year flood of a watercourse without increasing the water surface elevations more than a specified height.

2.14 Floodway Map - map which depicts floodways and special flood hazard areas to be regulated by this Ordinance.

2.15 Floodway Fringe - that portion of the floodplain outside the floodway.

2.16 Freeboard - an increment of elevation added to the base flood elevation to provide a factor of safety for uncertainties in calculations, wave actions, subsidence, or other unpredictable effects.

2.17 Local Permitting Official – the City of Brunswick Zoning Administrator for Zoning Certificates and Use and Occupancy Permits (after Frederick County issuance), the Frederick County Department of Permits and Inspections for Building Permits and Building Permit related inspections and Use and Occupancy Permits, and the Frederick County Environmental Compliance Section for Grading, Stormwater Management, and associated inspections.

2.18 Historic Structure - a structure listed individually on the National Register of Historic Places, the Maryland Inventory of Historic Properties, a local inventory of historic places certified by the Maryland Historic Trust or the Secretary of the Interior, or preliminarily determined as meeting the requirements for such listing by the Maryland Historic Trust or the Secretary of the Interior, or determined as contributing to the historic significance of a historic district registered with Secretary of the Interior.

2.19 Lowest Floor - the lowest floor of the lowest enclosed area, including basement. An unfinished enclosure constructed of flood resistant materials used solely for parking of vehicles, storage, or building access in an area other than a basement is not the lowest floor, as long as it is supplied with water equalizing vents.

2.20 Manufactured Home - a transportable structure which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities.

2.21 NGVD - National Geodetic Vertical Datum of 1929 elevation reference points set by the National Geodetic Survey based on mean sea level.

2.22 New Construction - a structure for which the start of construction commenced on or after the date of the adoption of the first effective

Floodplain Management Ordinance adopted by the community, and includes any subsequent improvements.

2.23 One Hundred (100) Year Frequency Flood - The Base Flood, having one chance in a hundred of being equaled or exceeded in any year.

2.24 Permanent Structure - any structure occupying a site for more than 180 days per year.

2.25 Recreational Vehicle - a vehicle built on a single chassis which is 400 square feet or less at the longest horizontal projection, self propelled or towable, and designed primarily for temporary living while traveling or camping.

2.26 Repetitive Loss - flood related damage sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds 25% of the market value of the structure before the damage occurred.

2.27 Start of Construction - the date of issue by the Local Permitting Official of the building permit for any development, including new construction and substantial improvements, provided that the actual start of construction or improvement was within 180 days of permit issuance. The actual start of construction is the placement of the slab or footings, piles or columns, or actual placement of a manufactured home.

2.28 Structure - a walled and roofed building, including, but not limited to, manufactured homes, gas and liquid storage tanks, garages, sheds, and barns.

2.29 Substantial Damage - damage of any origin sustained by a structure, whereby the cost of restoring the structure to it's before damaged condition would equal or exceed 50% of its market value before the damage occurred.

2.30 Substantial Improvement - any repair, reconstruction, alteration, or improvement of a structure, the cost of which equals or exceeds 50% of the market value of the structure (less land value) either: (a) before the improvement or repair is started; or (b) if the structure incurred substantial damage and has been restored, before the damage occurred. Substantial improvement occurs when the first alteration of any wall, ceiling, floor, or other structural part of the building commences. The minimum repairs needed to correct previously identified violations of local health, safety, or sanitary codes, and alterations to historic structures which do not preclude their continued designation as historic structures are not considered substantial improvements. The term also includes structures which have

incurred repetitive loss or substantial damage, regardless of the actual repair work performed.

2.30 Temporary Structure - any structure completely removed within 180 days from issuance of the permit.

2.31 Variance - the grant of relief from a term or terms of this Ordinance.

2.32 Wetland - any land which is: (1) considered private wetland or State wetland pursuant to Title 9, Wetland and Riparian Rights, Natural Resources Article, Annotated Code of Maryland; or (2) defined as wetland under the procedures described in the "Federal Manual for Identifying and Delineating Jurisdictional Wetlands" by the Federal Interagency Committee for Wetland Delineation, 1989, as amended.

Article III - Permit and Subdivision Review Procedures

Sect. 3.1 General

A permit from Frederick County and/or Zoning Certificate from the City of Brunswick required for all development in any Floodplain Zone. It shall be granted only after all other necessary permit applications are submitted to federal and State agencies. A permit issued by the Local Permitting Official under this Ordinance is not valid until all other necessary permits for development are obtained. Receipt of federal or State permits does not exempt development from the provisions of this Ordinance.

Sect. 3.2 **Information for a Permit** and Zoning Certificate

Applications for a Building Permit and Zoning Certificate shall contain, at a minimum, the following information:

a. name, address, and phone number of applicant (owner or agent of owner);
b. name, address, and phone number of owner, if different;
c. name, address, and phone number of contractor
d. legal description of site location;
e. proposed uses for the site;
f. type, dimensions, and estimated cost of development proposed;
g. site characteristics and improvements; and
h. other information deemed appropriate by the ***L***ocal ***P***ermitting ***O***fficial.

All permit applications must have a site plan drawn to scale which shows:

a. dimensions of site;
b. size and location of existing and proposed structures or alterations;
c. setbacks;
d. elevation contours in mean sea level (NGVD);
e. delineation of the 100-year flood elevation and boundary; and
f. proposed elevation of the lowest floor and method of elevation, if applicable.

The Local Permit Official may require plans for tree maintenance, stormwater management, re-vegetation, establishment of vegetated buffers, and final grading as part of the permit application process.

All applicants shall agree in writing to provide an Elevation Certificate completed by a registered professional engineer or surveyor to certify the as-built lowest

floor of any structure which must be elevated to or above the Flood Protection Elevation.

An Elevation Certificate must be submitted before a Certificate of Occupancy or Use may be issued by Frederick County and approved by the City of Brunswick Zoning Administrator. Work undertaken prior to submission of the certification is at the applicant's risk. For enclosed areas below the Flood Protection Elevation, a Non-conversion Agreement acceptable to the City of Brunswick may be required, which includes an agreement to install water equalizing vents as specified in Sect. 6.2 of this Ordinance.

If an improvement to an existing structure is proposed, adequate information on the cost of the improvement and the market value of the structure before the improvement must be supplied to the Local Permitting Official to allow a determination of substantial improvement. The Local Permitting Official may use tax assessment records to determine substantial improvement. In floodway and coastal high hazard areas, permits shall be tracked by property location to determine if the cumulative value of improvements constitutes substantial improvement of a structure.

Sect. 3.3 Issuance of Permit

Considerations

Prior to issuance of a permit or a zoning certificate, the Local Permitting Official shall determine the location of the project relative to floodways, floodplains, or V-zones and shall note on the permit the proper elevation to which the lowest floor of proposed structures must be elevated. In approximate floodplains where an elevation is not available, the applicant shall be required to obtain such elevation. The applicant must agree to secure all other required permits, an Elevation Certificate, Floodproofing Certificate, engineering analysis, or other required verifications deemed appropriate by the Local Permitting Official.

Permits shall be granted by the Local Permitting Official only after determining that the proposed development will be in complete conformance with the requirements of this Ordinance and all other applicable local codes and ordinances. All other necessary permits or approvals must be applied for or granted. Permits are valid only after all other necessary permits are granted.

Dam Safety

Caution should be exercised when approving development downstream of existing or proposed dams. The condition of the dam, as well as the design criteria, hazard class, and the danger reach, should be investigated to avoid increasing potential hazards. Dams must meet design criteria based on the potential impacts downstream of the dam. Downstream development within the

dam break flood wave shall be denied unless the dam meets the design standards for a high hazard dam.

After Issuance and During Construction

After issuance of a permit, no changes of any kind shall be made to the application, permit, or any of the plans, specifications, or other documents submitted with the application without the written approval of the Local Permitting Official. A copy of the permit or other verification must be displayed at the construction site during construction activity.

Work on the permitted activity shall begin within 180 days of the issuance of the permit, or the permit shall expire, unless a written extension is granted by the Local Permitting Official. Work shall be completed within one year of the date of the permit unless a greater time is specified in the permit or a written extension is granted.

During construction, the Local Permitting Official or an authorized representative shall inspect the site to determine that the work is in compliance with the permit. Any work found to be noncompliant must be corrected before any additional work is undertaken.

Record of Permits

A record of all floodplain permits shall be maintained and be available upon request by the Federal Emergency Management Agency or its authorized agent (NFIP Coordinating Office, Maryland Department of the Environment) during periodic assessments of this community's participation in the National Flood Insurance Program. All documents needed to support any permit action, such as Elevation Certificates, map amendments or revisions, variance actions, shall be available for review during these assessments.

Sect. 3.4 Conditioned Permits For Accessory Structures and Garages

A conditioned permit may be issued at the discretion of the Local Permitting Official to allow accessory structures up to a total size of 600 square feet below the 100-year elevation. In order to qualify, the structure's use must be incidental to the primary structure, and it can be used only for limited storage and parking of vehicles. The provisions of Sect. 6.6 must be met, including anchoring, water equalizing venting, and proper elevation of all electrical equipment. A Non-conversion Agreement or Declaration of Land Restriction acceptable to the City of Brunswick must be completed prior to permit issuance.

a. For accessory structures up to 300 square feet in area - structure must be anchored, vented, and Non-conversion Agreement completed.
b. For accessory structures 300-600 square feet in area - structure must be anchored, vented, and a Declaration of Land Restriction recorded.
c. For accessory structures greater than 600 square feet, the same conditions as in (b) above apply, plus a variance as described in Sect. 7.2 must be issued.

Sect. 3.5 Fees

To partially defray the expense of administering this Ordinance, a fee shall be paid to the City of Brunswick, Maryland for services before any zoning certificate is issued or any site plan, residential site plan, or other development application is processed. Fees shall be as established by resolution of the Mayor and Council; provided, however, that such fees shall not exceed the cost incurred by the city for providing such services.

The City of Brunswick acknowledges Frederick County's right to establish fees for the portions of this Ordinance that are under their jurisdiction.

Sect. 3.6 Penalties

A person who does not comply with a permit issued pursuant to the provisions of this Ordinance is guilty of a misdemeanor. Alternatively or in addition, the violation may be considered a civil infraction and a fine imposed, but a fine does not excuse the violation. Each day a violation continues is a separate offense. The violation must be corrected prior to any further work progressing on the project.

The Federal Insurance Administrator and the NFIP Coordinating Office, Maryland Department of the Environment must be notified by the Local Permitting Official within 30 days after issuance of the citation of any violation which requires a fine or court appearance. New or renewal federal flood insurance may be denied any structure remaining in violation of this Ordinance. The violation may also violate State law, may be subject to separate action, and may incur a separate penalty.

Enforcement of this Ordinance by the applicable Local Permitting Official shall be consistent with the existing jurisdictional arrangements. Prior to the issuance by Frederick County and approval by the City of Brunswick of Use and Occupancy Certificates, Frederick County shall be responsible to enforce compliance with this Ordinance for all permits it issues for construction within the City of Brunswick. Enforcement by the City of Brunswick shall be consistent with the Charter of the City of Brunswick and the Code of Ordinances of the City of Brunswick.

Sect. 3.7 Subdivision Review and Approval Requirements

Requirement for Study and Delineation of Floodplains

A subdivision consisting of more than 5 lots or 5 acres is required to submit a flood study to delineate the floodplain and provide base flood elevations for any unstudied portion of a stream in that subdivision. Methods used to develop the floodplain and base flood elevations must be approvable by FEMA. No plan for a subdivision containing floodplain shall be reviewed unless the floodplain zones (floodway and floodplain, as applicable) and 100-year flood elevations are clearly delineated in the plan. The plan shall demonstrate how development in the floodplain will be avoided, and the floodplain maintained in a natural state to the extent possible.

Changes to Mapped Floodplains

If site studies indicate that the FEMA mapped floodplain is incorrectly delineated, revisions shall be made by through a Conditional Letter of Map Revision (CLOMR), Letter of Map Revision (LOMR), or Letter of Map Amendment (LOMA) issued by FEMA prior to subdivision approval. If required, as-built data must be provided to FEMA, and a Letter of Map Revision (LOMR) issued prior to any structures being permitted. Floodplain changes should be authorized only when the actual conditions are not reflected in the mapped floodplain or for necessary public infrastructure. Fill to bring lots above the flood elevation should only be authorized in tidal floodplain areas.

Requirement to Preserve Floodplains and Natural Features

In all floodplain subdivisions, site constraints shall be resolved in the placement of lots, and plans for maintenance of forest cover, flood protection setbacks, re-vegetation, accommodation of stormwater runoff, prevention of erosion, and other plans required by the Local Permitting Official must be submitted with subdivision proposals. The plans shall be evaluated as a whole to achieve maximum preservation of the natural and beneficial floodplain functions, desirable resources, and characteristics of each site. The plan for utility ingress, stormwater structures, road access, and other rights of way shall be evaluated in light of the site characteristics. Stormwater management devices may not encroach into the floodway, and should be kept out the floodplain, if possible. Floodplain areas and their natural vegetation shall be preserved and dedicated to natural buffer areas, open space, recreation, and similar compatible uses by deed restriction, restrictive covenants, or donation to a land trust to the extent possible. At a minimum, the area preserved shall include the flood protection setback area, and, to the greatest extent possible, other floodplain areas. Steep slopes and forested areas adjacent to watercourses shall also be given high priority for preservation. Some of these requirements may be waived at the discretion of the

Planning staff, if a large portion of the site is floodplain, as may occur in tidal floodplains.

Building Sites Outside Floodplain

To achieve long-term flood damage avoidance and protection of the natural and beneficial floodplain functions, no new flood-prone building sites shall be created in any new subdivisions in non-tidal floodplains regardless of size, number of lots, and location. Each lot platted must demonstrate that a building pad is outside of the 100-year floodplain, and the structure must be located on a flood-free portion of the site. The flood protection setback requirement of Sect. 5.4 shall be met. Consideration must be given to clustering development out of the floodplain. An access road at or above the elevation of the 100-year flood shall be provided. New subdivisions in tidal floodplains shall be designed to develop the highest natural land available before floodplain lots are platted. High priority should be given to clustering development out of the floodplain while preserving the low-lying land and forested areas in natural vegetation.

Fill

Fill may not be used to create additional building lots and flood storage capacity shall be maintained. Fill shall not be placed in the floodway, or cause any increase in flood heights anywhere in the non-tidal floodplain. Fill in the non-tidal floodplain may not be permitted without a variance. If a limited amount of fill in the floodway fringe is warranted or will result in a better site design, a variance may be considered. The developer should be prepared to provide compensatory storage or other concessions to protect the natural resources of the site to obtain the variance.

All other provisions of this Article and Article VI apply to subdivisions. The local permitting official may specify additional provisions in the plan review.

Article IV - Establishment of Floodplain Zones

Sect. 4.1 Identification of Flood Zones

The regulatory floodplain shall be those areas within the City of Brunswick and as shown on the FIRM Maps in the Appendix, which are subject to the 100-year flood, delineated on the most recent revision of the community's Floodway Maps and Flood Insurance Rate Maps (FIRM) and described in the Flood Insurance Study (FIS) prepared by the Federal Emergency Management Agency (FEMA). Floodway Maps and the FIS, if available for the community, must be used. Areas along non-tidal streams that do not have FEMA delineations as described above are subject to regulation by this Ordinance and the State.

Sect. 4.2 Floodplain Zones

A community may have one or more of the following floodplain zones:

> **Non-tidal Floodplains** consist of the Floodway and the Floodway Fringe. Non-tidal floodplains may have detailed engineering study data, profiles, and water surface elevations, or may have approximate delineations only.

Sect. 4.3 Floodplain Boundaries

Floodplain Zone Determination

The Local Permitting Official will determine the floodplain zone in which the development activity is proposed using the Floodway Maps and FIS if available, or, if not, by using the FIRM. Without prior approval from FEMA, the community shall use no other data to enforce floodplain management regulations. In cases where a site in the mapped floodplain is above the elevation of the 100-year flood, a Letter of Map Amendment (LOMA) should be obtained from FEMA.

Approximate Floodplain Determination

For development proposed in the approximate floodplain (no water surface elevations or floodway data provided), the applicant must use the best available information to determine the elevation of the 100-year flood and the extent of the floodway, and must delineate these on the site plan submitted for approval. For new subdivisions, the applicant must have the 100-year flood elevations certified by a registered professional engineer based on hydrologic and hydraulic analyses which include a floodway analysis. For individual lot development, if no data are available, methods described in FEMA Publication #265 Managing Floodplain Development in Approximate Zone A Areas, should be used to determine the 100-year flood elevation at the site.

Unmapped Streams

In cases in which development is proposed in the vicinity of unmapped streams, which have no delineated 100-year floodplain, the 50 foot flood protection setback from the banks of the stream described in Sect. 5.4 may be used. State permits may be required and applicants are advised to seek a determination from the State.

Article V - Development Regulations in Floodplain Zones

In order to prevent excessive flood damage and to allow for the protection of the natural and beneficial floodplain functions, the following provisions shall apply to all development, new construction, and substantial improvements to existing structures in all floodplain zones. If a structure is in more than one zone, the more stringent provisions shall apply to the entire structure. The specific requirements contained in Article VI also apply to development in this Article. Any approved development shall comply with all other zoning, environmental, water quality and sanitary regulations, as well as applicable State and federal requirements.

Watercourses

In all floodplain zones, any development which proposes to alter a watercourse must obtain a variance. All conditions for encroachment in the floodway must be met and adverse impacts to aquatic resources must be minimized. Adjacent communities and property owners, FEMA, and the Maryland NFIP Coordinating Office, Maryland Department of the Environment must be notified by the applicant before any modification may occur to watercourses. Any activity falling within the 100-year non-tidal floodplain may require a waterway construction permit from the Water Management Administration, Maryland Department of the Environment.

Wetlands

Encroachment by development into wetlands is not allowed without State and federal permits. It is State and federal policy that disturbance of wetlands shall be avoided. The applicant must demonstrate that no alternatives exist and the encroachment is the minimum necessary. Mitigation may be required by the appropriate regulatory authorities.

Sediment and Stormwater Management

Any land disturbance permitted in the floodplain must have a stormwater management and sediment and erosion control plan as required by State and local regulations. The plan must include design of land contours that will not increase surface water runoff onto neighboring properties. Ground cover must be established immediately after disturbance, and a plan for permanent plantings, including trees, should provide for adequate vegetative cover within the flood protection setback from watercourses to prevent erosion.

Part A. Non-tidal Floodplain Zones

Sect. 5.1 General

Development may not occur in the floodplain where alternative locations exist due to the inherent hazards and risks involved. Before a permit is issued, the applicant shall demonstrate that new structures cannot be located out of the floodplain and that encroachments onto the floodplain are minimized.

Sect. 5.2 Elevation Requirements - New and Substantially Improved Structures

Residential Structures

All new, substantially improved, or repetitive loss residential structures, including manufactured homes, shall have the lowest floor elevated to or above the Flood Protection Elevation. Basements are not permitted. In non-tidal floodplains, horizontal expansions which increase the footprint and that are less than substantial shall also have the lowest floor elevated to or above the Flood Protection Elevation. The elevation of the lowest floor shall be certified by a registered surveyor or professional engineer on the Elevation Certificate, after the lowest floor is in place. Enclosures below the Flood Protection Elevation must be constructed with water equalizing vents to meet the specifications of Sect. 6.2. Improvements less than substantial and expanding the existing building footprint shall be constructed in compliance with the state requirements to minimize damage during flooding.

Nonresidential Structures

All new, substantially improved, or repetitive loss nonresidential structures shall be elevated as set forth above for residential structures or shall be floodproofed. Horizontal expansions in the non-tidal floodplain which increase the footprint and that are less than substantial shall also have the lowest floor elevated to or above the Flood Protection Elevation. State regulations do not allow basements. The elevation of the lowest floor shall be certified by a registered surveyor or professional engineer on the Elevation Certificate, after the lowest floor is in place. Enclosures below the Flood Protection Elevation must be constructed with water equalizing vents to meet the specifications of Sect. 6.2. Improvements less than substantial and expanding the existing building footprint shall be constructed in compliance with the state requirements to minimize damage during flooding.

Sect. 5.3 Fill

The placement of more than 600 cubic yards of fill per parcel/lot in the floodplain is prohibited except by variance. Elevating buildings by other methods must be considered unless 600 cubic yards or less of fill are required. An applicant shall

demonstrate that fill is the only alternative to raising the building to at least the Flood Protection Elevation, and that the amount of fill used will not affect the flood storage capacity or increase flooding onto neighboring properties.

In the event buildings on adjacent properties are known or determined to be subject to flooding under current conditions, the Local Permitting Official may require submission of hydrologic and hydraulic analyses to adequately demonstrate the effects of the proposed fill. The conditions described in Sect. 6.8 must be met whenever fill is used.

Sect. 5.4 Flood Protection Setback Requirement

A minimum 100 foot flood protection setback shall be maintained from the edge of the banks of any watercourse delineated as having a floodplain on the Floodway Map or FIRM, except where the setback may extend beyond the floodplain. To prevent erosion, natural vegetation shall be maintained in this area. Where natural vegetation does not exist along the water course and conditions for replanting are suitable, high priority shall be given to planting trees in the setback area to stabilize banks and enhance aquatic resources.

A minimum 50 foot flood protection setback shall be maintained from the top of the bank of any stream which has no designated floodplain and/or wetlands. Natural vegetation shall be maintained and, if needed, trees planted.

For activities within the Chesapeake Bay Critical Area, a Critical Area buffer exemption will exempt proposed development from the flood protection setback requirement. However, new construction is prohibited within the reach of mean high tide.

The Local Permitting Official may consider a variance if the applicant demonstrates that it is impossible to allow any development without encroachment into the flood protection setback area. The variance shall be the minimum necessary and shall be made only after due consideration is given to varying other siting standards, such as side, front, and back lot line setbacks. Necessary public works and temporary construction may be exempted from this Section.

Part B. Floodways

Sect. 5.5 General

Floodways shall be preserved to carry the discharge of the 100-year flood. Floodways present increased risks to human life and property because of their relatively faster and deeper flowing waters. Fill shall not be permitted. New structures shall not be permitted. New development shall not be permitted in the floodway where alternatives exist elsewhere or if any increase in water surface elevations will result from the 100-year flood.

Any development in the floodway which may result in any increase in water surface elevations or change to the floodway must be submitted to FEMA for a Conditional Letter of Map Revision. Hydrologic and hydraulic analyses based on existing floodway models and performed in accordance with standard engineering practices and certified by a registered professional engineer must be submitted. Failure to receive this Letter shall be grounds for denial of the permit.

An alternative analysis must be prepared for any development in the floodway before a permit may be issued. The provisions of Part A above, as well as Part B, apply to floodways.

Sect. 5.6 Alternative Analysis Requirement

Before a permit may be issued, an applicant shall submit an alternative analysis which demonstrates that:

a. no reasonable alternatives exist outside the floodway;
b. encroachment in the floodway is the minimum necessary;
c. the development will withstand the 100-year flood without significant damage; and
d. the development will not increase downstream or upstream flooding or erosion.

Sect. 5.7 Existing Structures

Existing structures in the floodway shall be substantially improved only by variance and if they can be brought into conformance with this Ordinance without increasing the footprint. Minor additions (less than substantial) must be elevated to the Flood Protection Elevation on pilings or columns. In the event of substantial damage or replacement, the applicant shall submit an alternative analysis to determine if the structure can be relocated to a less hazardous site. Where replacement structures cannot be relocated, they shall be limited to the footprint of the previous structure and must comply with the elevation requirements of Sect. 5.2 of this Ordinance. Permits for incremental

improvements and additions shall be tracked by the Local Permitting Official, and if cumulative improvements constitute substantial improvement, no further permits may be issued unless the structure conforms to the provisions of this Ordinance.

Sect. 5.8 Maintenance of Natural Channel

The natural watercourse shall be maintained for protection of aquatic resources. A variance is required for alteration of watercourses. Any variance issued must assure that the conditions for encroachment in the floodway are met, adverse impacts to aquatic resources are minimized, and the public good outweighs the adverse impacts. The provisions of Article V pertaining to altering a watercourse must be met.

Sect. 5.9 Obstructions

Structures or fill which may impede, retard, or change the direction of the flow of flood waters, or any materials that may be carried downstream to cause damage shall not be placed in the floodway. Fences, except two wire fences, shall not be placed in the floodway.

Article VI Specific Requirements

In addition to the requirements outlined in Article V, the following specific requirements must be applied.

Sect. 6.1 Placement of Buildings and Materials

In general, buildings and accessory structures should be located entirely out of the floodplain, out of the flood protection setback, on land that is least susceptible to flooding or wetlands. All structures permitted in the floodplain shall be oriented so as to offer the least resistance to the flow of flood waters.

Materials which are buoyant, flammable, explosive, hazardous to health, or which at times of flooding may be injurious to human, animal, or plant life, shall not be stored below the Flood Protection Elevation.

Sect. 6.2 Enclosures Below Lowest Floor

Buildings which have been elevated and have fully enclosed areas below the Flood Protection Elevation, as well as garages and accessory structures which are not elevated (Sect. 6.6), shall be constructed with water equalizing vents which meet or exceed the following standards:

1. a minimum of two openings on different walls having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding;
2. the bottom of all openings shall be no higher than one foot above grade; and
3. openings may be equipped with screens, louvers, valves, or other coverings or devices, provided that they permit the automatic entry and exit of floodwaters to equalize hydrostatic forces on the walls.

Fully enclosed areas below the Flood Protection Elevation shall be used solely for parking of vehicles, access to the building, or storage. If such areas are enclosed, a Declaration of Land Restriction as described in Sect. 3.4 must be recorded against the deed to the property by the applicant.

In coastal high hazard areas, enclosures below the Flood Protection Elevation shall comply with the provisions of Sect. 5.12 of this Ordinance.

Sect. 6.3 Manufactured Homes and Manufactured Home Parks

New manufactured homes and manufactured home parks are prohibited in the coastal high hazard area and in the floodway. In other floodplain zones, all new,

replacement, or substantially improved manufactured homes, whether in a manufactured home park or not, shall comply with Sect. 5.2 of this Ordinance.

Methods of anchoring shall include use of over-the-top and frame ties to ground anchors. Pilings or columns shall be used to maintain storage capacity of the floodplain. Concrete block support pilings must be reinforced by placing reinforcing bars inside and extending them into the footing, filling the hollows with cement, and using mortar to cement the blocks together. FEMA Publication 85, "Manufactured Home Installation in Flood Hazard Areas", should be consulted for specific recommendations.

Manufactured homes repaired or replaced because of substantial damage due to flooding or other causes are considered to be new structures and must fully comply with Sect 5.2.

Owners of manufactured home parks or subdivisions that are partially or fully within the floodplain must file an evacuation plan with the local emergency management agency. In non-tidal floodplains, a flood free access road shall be provided in all new manufactured home parks and subdivisions.

Sect. 6.4 Anchoring

All structures shall be firmly anchored in accordance with acceptable engineering practices to prevent flotation, collapse, and lateral movement during flooding. All air ducts, large pipes, and storage tanks located below the Flood Protection Elevation shall be firmly anchored to resist flotation.

Sect. 6.5 Utilities

Electric

All electric utilities to the building side of the meter, both interior and exterior to the building, are regulated by this Ordinance. Distribution panel boxes must be at least 2 feet above the Flood Protection Elevation. All outlets and electrical installations, such as heat pumps, air conditioners, water heaters, furnaces, generators, distribution systems, including duct work, must be installed at or above the Flood Protection Elevation. Replacement HVAC equipment shall be elevated to the Flood Protection Elevation unless proven to be impractical.

Plumbing

Toilets, sinks, showers, water heaters, pressure tanks, furnaces, and other permanent plumbing installations must be installed at or above the Flood Protection Elevation.

Gas

Gas meters and gas appliances must be installed at or above the Flood Protection Elevation.

Fuel Tanks

All gas (propane) tanks installed in the floodplain are required to be anchored to prevent flotation in accordance with the National Fire Protection Association Code 58, Section 3-2.2.7 (h), which states: "Where necessary to prevent flotation due to possible high flood waters around aboveground or mounded containers, or high water table for those underground and partially underground, containers shall be secured." This ordinance also requires that all tanks installed in floodplain areas be either elevated or adequately anchored to prevent flotation up to the Flood Protection Elevation.

All fuel oil storage tanks installed in the floodplain must be either elevated or securely anchored to prevent flotation up to the Flood Protection Elevation. Vent pipes must extend to or above the Flood Protection Elevation and fill caps below the Flood Protection Elevation must be screw type with a tight fitting gasket to prevent mixing of water with oil.

Water Supply and Sanitary Facilities

Water supply distribution and sanitary disposal collection systems must be designed to minimize or eliminate the infiltration of flood waters into the systems or discharges from the systems into flood waters and shall be located and constructed so as to minimize or eliminate flood damage. On-site sewage disposal systems shall meet these same standards.

Sect. 6.6 Accessory Structures and Garages

Where feasible, accessory structures and garages should be located out of the floodplain or elevated to or above the Flood Protection Elevation. When these measures are not feasible the following apply:

a. the floor of the structure must be at or above grade;
b. the structure must be located, oriented, and constructed to minimize flood damage; and
c. the structure must be firmly anchored to prevent flotation.

Attached Garages

A garage attached to the main structure shall be elevated to the greatest extent possible, but may be permitted as an exemption to the strict elevation requirement if it is used solely for parking of vehicles, storage,

or building access and is no more than 600 square feet in area. Attached garages must meet the venting requirements of Sect. 6.2, have all interior walls, ceilings, and floors below the Flood Protection Elevation unfinished, and have no machinery or electric devices or appliances located below the Flood Protection Elevation. A Declaration of Land Restriction as described in Sect. 3.4 must be recorded against the deed to the property by the owner stating that the garage may never be used for human habitation without first becoming fully compliant with this Ordinance for attached garages.

Detached Garages and Accessory Structures

An accessory structure or detached garage may be permitted below the 100-year flood elevation if it is less than 300 square feet, used solely for parking of vehicles and limited storage, meets the venting requirements of Sect. 6.2, has all interior wall, ceiling, and floor elements below the Flood Protection Elevation unfinished, and has no machinery, electric devices, or appliances located below the Flood Protection Elevation. A Non-conversion Agreement must be signed by the property owner.

An accessory structure or a detached garage between 300 and 600 square feet may be permitted below the Flood Protection Elevation only by a conditioned permit described in Sect. 3.4, and having a Declaration of Land Restriction recorded against the deed to the property prior to permit issuance.

Any accessory structure or garage larger than 600 square feet in area must be elevated properly or be able to meet all applicable requirements under the variance procedure in Sect. 7.1 and 7.2 of this Ordinance, and meet the conditions of the paragraph above.

Sect. 6.7 Recreational Vehicles

Recreational vehicles located within the floodplain may be exempted from the elevation and anchoring requirements provided they are:

a. located on the site less than 180 consecutive days per year;
b. fully licensed and ready for highway use; and
c. properly permitted.

A recreational vehicle is ready for highway use if it is on its wheels and jacking system, is attached to the site only by quick disconnect type utilities and securing devices, and has no permanently attached additions. If it cannot meet all of these criteria, the recreational vehicle must be considered a manufactured home and is subject to the elevation and construction standards of this Ordinance.

Sect. 6.8 Fill

Fill is discouraged because storage capacity is removed from floodplains. Other methods of elevating structures should be considered first, and fill used only if other methods are not feasible. Fill may not be placed in the floodway. Fill may not be used for structural support in coastal high hazard areas. Fill may not be placed in tidal or non-tidal wetlands without the required State and federal permits.

Fill must consist of soil and rock materials only. Dredged material may be used as fill only upon certification of suitability by a registered professional geotechnical engineer. Landfills, rubble fills, dumps and sanitary fills are not permitted in the floodplain.

Fill used to support structures must be compacted to 95% of the maximum density obtainable by the Standard Proctor Test (ASTM Standard D-698), and its suitability to support structures certified by a registered professional engineer. Fill slopes shall be no greater than two horizontal to one vertical. Flatter slopes may be required where velocities may result in erosion.

The use of fill shall not increase flooding or cause drainage problems on neighboring properties.

Article VII - Variances

Sect. 7.1 Reasons for Granting

The Board of Zoning Appeals shall hear and decide appeals and requests for variances from the requirements of this Ordinance. Conditions may be attached to the variance action, and variance actions must be consistent with sound floodplain management. Variances may not be issued except as specified below, nor shall variances be issued for any encroachment in floodways if any increase in the 100-year flood levels will result. Historic structures may be granted variances consistent with regard to a proper balance between maintaining their historic nature and good floodplain management, provided that the proposed improvements will not affect their historic listing.

Variances shall only be issued upon:

a. a showing of good and sufficient cause;
b. a determination that failure to grant a variance would result in exceptional hardship (other than economic) to the applicant; and
c. a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud or victimization of the public, or conflict with existing local and State laws or ordinances.

The variance action shall be the minimum necessary, considering the flood hazard, to afford relief. In considering a variance action, comments from the NFIP Coordinating Office, Maryland Department of the Environment must be taken into account and maintained with the permit file.

Sect 7.2 Conditions

Variances may not be granted for the following:

a. placement of fill or any development in the floodway if any increase in flood levels would result;
b. placement of fill in the coastal high hazard area for structural support; or
c. new buildings in the floodway.

For any variance issued, a letter shall be sent to the applicant indicating the terms and conditions of the variance, the increased risk to life and property in granting the variance, and the increased premium rates for National Flood Insurance coverage. The applicant shall be notified in writing of the requirement for recordation of these conditions on the deed or Declaration of Land Restriction

prior to obtaining a permit, and of the need to secure all necessary permits as conditions for granting a variance. The Declaration is described in Article 3-102 and 3-103 of the Real Property Article of the Annotated Code of Maryland.

The Local Permitting Official shall maintain a record of all variance actions and the justification for their issuance, as well as all correspondence. This record must be available for periodic review by FEMA and its agents. The number of variance actions should be kept to a minimum.

Sect. 7.3 Functionally Dependent Uses

Variances may be issued for new construction and substantial improvements for the conduct of a functionally dependent use. A functionally dependent use cannot perform its intended purpose unless it is located or carried out in close proximity to water. It 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. The variance may be issued only upon sufficient proof of the functional dependence. The provisions of Sect. 7.1 and 7.2 must be met and the structure must be protected by methods that minimize flood damage up to the Flood Protection Elevation and must create no additional threats to public safety. This may require methods of "wet floodproofing" which allow the structure to flood without significant damage. Methods of floodproofing must not require human intervention.

Article VIII - Effective Date and Subsequent Amendments

This Ordinance is hereby enacted and shall become effective September 9, 2007.

This Ordinance shall be amended as required by the Federal Emergency Management Agency, 44 Code of Federal Regulations. All subsequent amendments to this ordinance are subject to approval of the Federal Emergency Management Agency and the NFIP Coordinating Office, Maryland Department of the Environment.