ARTICLE 16 – FLOOD DAMAGE PREVENTION

16.1 Statutory Authorization

The Legislature of the State of North Carolina has in Part 6, Article 21 of Chapter 143; Parts 3, 5, and 8 of Article 19 of Chapter 160A; and Article 8 of Chapter 160A of the North Carolina General Statutes, delegated to local governmental units the responsibility to adopt regulations designed to promote the public health, safety, and general welfare.

16.2 Findings Of Fact

- **16.2.1** The flood prone areas within the jurisdiction of the Town of Butner are subject to periodic inundation which results in loss of life, property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures of flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.
- **16.2.2** These flood losses are caused by the cumulative effect of obstructions in floodplains causing increases in flood heights and velocities and by the occupancy in flood prone areas of uses vulnerable to floods or other hazards.

16.3 Statement Of Purpose

It is the purpose of this Article to promote public health, safety, and general welfare and to minimize public and private losses due to flood conditions within flood prone areas by provisions designed to:

- **16.3.1** Restrict or prohibit uses that are dangerous to health, safety, and property due to water or erosion hazards or that result in damaging increases in erosion, flood heights or velocities;
- **16.3.2** Require that uses vulnerable to floods, including facilities that serve such uses, be protected against flood damage at the time of initial construction;
- **16.3.3** Control the alteration of natural floodplains, stream channels, and natural protective barriers, which are involved in the accommodation of floodwaters;
- **16.3.4** Control filling, grading, dredging, and all other development that may increase erosion or flood damage; and
- **16.3.5** Prevent or regulate the construction of flood barriers that will unnaturally divert flood waters or which may increase flood hazards to other lands.

16.4 Objectives

The objectives of this Article are to:

- (1) Protect human life, safety, and health;
- (2) Minimize expenditure of public money for costly flood control projects;

- (3) Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- (4) Minimize prolonged business losses and interruptions;
- (5) Minimize damage to public facilities and utilities (i.e. water and gas mains, electric, telephone, cable and sewer lines, streets, and bridges) that are located in flood prone areas;
- (6) Help maintain a stable tax base by providing for the sound use and development of flood prone areas; and
- (7) Ensure that potential buyers are aware that property is in a Special Flood Hazard Area.

16.5 General Provisions

16.5.1 Applicability

This Article shall apply to all Special Flood Hazard Areas within the corporate limits and extraterritorial jurisdiction (ETJ) of the Town of Butner.

16.5.2 Basis For Establishing The Special Flood Hazard Areas.

The Special Flood Hazard Areas are those identified under the Cooperating Technical State (CTS) agreement between the State of North Carolina and FEMA in its Flood Insurance Study (FIS) for Durham County dated August 2, 2007 and Granville County dated April 16, 2007 and its accompanying Flood Insurance Rate Map Panels (848K, 854J, 855J, 856J, 857J, 864K, 865K, 866K, 867J, 868K, 876K, 877K, 878K, 887J, & 888J), which are adopted by reference and declared to be part of this ordinance.

16.5.3 Establishment Of Floodplain Development Permit.

A Floodplain Development Permit shall be required in conformance with the provisions of this Article prior to the commencement of any development activities within Special Flood Hazard Areas determined in accordance with the provisions of Section 16.5.2.

16.5.4 Warning And Disclaimer Of Liability.

The degree of flood protection required by this Article is considered reasonable for regulatory purposes and is based on scientific and engineering consideration. Larger floods can and will occur. Actual flood heights may be increased by manmade or natural causes. This Article does not imply that land outside the Special Flood Hazard Areas or uses permitted within such areas will be free from flooding or flood damages. This Article shall not create liability on the part of the Town of Butner or by any officer or employee thereof for any flood damages that result from reliance on this Article or any administrative decision lawfully made hereunder.

16.6 Provisions for Flood Hazard Reduction

16.6.1 General Standards

In all Special Flood Hazard Areas the following provisions are required:

- (A) All new construction and substantial improvements shall be designed (or modified) and adequately anchored to prevent flotation, collapse, and lateral movement of the structure.
- (B) All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
- (C) All new construction and substantial improvements shall be constructed by methods and practices that minimize flood damages.
- (D) Electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding to the Regulatory Flood Protection Elevation.

 These include, but are not limited to, HVAC equipment, water softener units, bath/kitchen fixtures, ductwork, electric/gas meter panels/boxes, utility/cable boxes, hot water heaters, and electric outlets/switches.
- (E) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.
- **(F)** New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into flood waters.
- (G) On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.
- (H) Any alteration, repair, reconstruction, or improvements to a structure, which is in compliance with the provisions of this Article, shall meet the requirements of "new construction" as contained in this Article.
- (I) Nothing in this Article shall prevent the repair, reconstruction, or replacement of a building or structure existing on the effective date of this Ordinance and located totally or partially within the floodway, non-encroachment area, or stream setback, provided there is no additional encroachment below the regulatory flood protection elevation in the floodway, non-encroachment area, or stream setback, and provided that such repair, reconstruction, or replacement meets all of the other requirements of this Article.

- (J) New solid waste disposal facilities and sites, hazardous waste management facilities, salvage yards, and chemical storage facilities shall not be permitted. A structure or tank for chemical or fuel storage incidental to an allowed use or to the operation of a water treatment plant or wastewater treatment facility may be located in a Special Flood Hazard Area only if the structure or tank is either elevated or floodproofed to at least the regulatory flood protection elevation and a certification to this effect is obtained.
- **(K)** All subdivision proposals and other development proposals shall be consistent with the need to minimize flood damage.
- (L) All subdivision proposals and other development proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage.
- (M) All subdivision proposals and other development proposals shall have adequate drainage provided to reduce exposure to flood hazards.
- (N) All subdivision proposals and other development proposals shall have received all necessary permits from those governmental agencies for which approval is required by Federal or State law, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334.
- (O) When a structure is partially located in a special flood hazard area, the entire structure shall meet the requirements for new construction and substantial improvements.
- (P) When a structure is located in multiple flood hazard zones or in a flood hazard risk zone with multiple base flood elevations, the provisions for the more restrictive flood hazard risk zone and the highest base flood elevation shall apply.

16.6.2 Specific Standards

In all Special Flood Hazard Areas where Base Flood Elevation (BFE) data has been provided, the following provisions, in addition to the provisions of 16.6.1, are required:

(A) Residential Construction

New construction and substantial improvement of any residential structure (including manufactured homes) shall have the reference level, including basement, elevated no lower than the regulatory flood protection elevation.

(B) Non-Residential Construction

New construction and substantial improvement of any commercial, industrial, or other non-residential structure shall have the reference level, including basement, elevated no lower than the regulatory flood protection elevation. Structures located in A, AE, AO, and A1-30 Zones may be floodproofed to the regulatory flood protection elevation in lieu of elevation provided that all areas of the structure, together with attendant utility and sanitary facilities, below the regulatory flood protection elevation are watertight with walls substantially impermeable to the passage of water, using structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. For AO Zones, the floodproofing elevation shall be in accordance with Section 16.6.6. A registered professional engineer or architect shall certify that the standards of this Subsection are satisfied. Such certification shall be provided to the Ordinance Administrator along with the operational and maintenance plans.

(C) Manufactured Homes

- (1) New and replacement manufactured homes shall be elevated so that the reference level of the manufactured home is no lower than the regulatory flood protection elevation.
- (2) Manufactured homes shall be securely anchored to an adequately anchored foundation to resist flotation, collapse, and lateral movement, either by a certified engineered foundation system, or in accordance with the most current edition of the State of North Carolina Regulations for Manufactured Homes adopted by the Commissioner of Insurance pursuant to NCGS 143-143.15. Additionally, when the elevation would be met by an elevation of the chassis thirty-six (36) inches or less above the grade at the site, the chassis shall be supported by reinforced piers or engineered foundation. When the elevation of the chassis is above thirty-six (36) inches in height, an engineering certification is required.
- All enclosures or skirting below the lowest floor shall meet the requirements of Section 16.6.2(D).
- (4) An evacuation plan must be developed for evacuation of all residents of all new, substantially improved or substantially damaged manufactured home parks or subdivisions located within flood prone areas. This plan shall be filed with and approved by the Ordinance Administrator and the local Emergency Management coordinator.

(D) Elevated Buildings

Fully enclosed area of new construction and substantially improved structures, which is below the lowest floor:

- (1) Shall not be designed or used for human habitation, but shall only be used for parking of vehicles, building access, or limited storage of maintenance equipment used in connection with the premises. Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door) or limited storage of maintenance equipment (standard exterior door), or entry to the living area (stairway or elevator). The interior portion of such enclosed area shall not be finished or partitioned into separate rooms, except to enclose storage areas;
- (2) Shall be constructed entirely of flood resistant materials at least to the regulatory flood protection elevation;
- (3) Shall include, in Zones A, AO, AE, and A1-30, flood openings to automatically equalize hydrostatic flood forces on walls by allowing for the entry and exit of floodwaters. To meet this requirement, the openings must either be certified by a professional engineer or architect or meet or exceed the following minimum design criteria:
 - (i) A minimum of two flood openings on different sides of each enclosed area subject to flooding;
 - (ii) The total net area of all flood openings must be at least one (1) square inch for each square foot of enclosed area subject to flooding;
 - (iii) If a building has more than one enclosed area, each enclosed area must have flood openings to allow floodwaters to automatically enter and exit;
 - (iv) The bottom of all required flood openings shall be no higher than 1 foot above the adjacent grade;
 - (v) Flood openings may be equipped with screens, louvers, or other coverings or devices, provided they permit the automatic flow of floodwaters in both directions; and
 - (vi) Enclosures made of flexible skirting are not considered enclosures for regulatory purposes, and, therefore, do not require flood openings. Masonry or wood underpinning, regardless of structural status, is considered an enclosure and requires flood openings as outlined above.

(E) Additions / Improvements

(1) Additions and/or improvements to pre-FIRM structures when the addition and/or improvements in combination with any interior modifications to the existing structure are:

- (i) Not a substantial improvement, the addition and/or improvements must be designed to minimize flood damages and must not be any more non-conforming than the existing structure.
- (ii) A substantial improvement, both the existing structure and the addition and/or improvements must comply with the standards for new construction.
- (2) Additions to post-FIRM structures with no modifications to the existing structure other than a standard door in the common wall shall require only the addition to comply with the standards for new construction.
- (3) Additions and/or improvements to post-FIRM structures when the addition and/or improvements in combination with any interior modifications to the existing structure are:
 - (i) Not a substantial improvement, the addition and/or improvements only must comply with the standards for new construction.
 - (ii) A substantial improvement, both the existing structure and the addition and/or improvements must comply with the standards for new construction.

(F) Recreational Vehicles

Recreational vehicles shall either:

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

(G) Temporary Non-Residential Structures

Prior to the issuance of a Floodplain Development Permit for a temporary structure, the applicant must submit to the Ordinance Administrator a plan for the removal of such structure(s) in the event of a hurricane, flash flood or other type of flood warning notification. The following information shall be submitted in writing to the Ordinance Administrator for review and written approval:

(1) A specified time period for which the temporary use will be permitted. Time specified may not exceed three (3) months, renewable up to one (1) year;

- (2) The name, address, and phone number of the individual responsible for the removal of the temporary structure;
- (3) The time frame prior to the event at which a structure will be removed (i.e., minimum of 72 hours before landfall of a hurricane or immediately upon flood warning notification);
- (4) A copy of the contract or other suitable instrument with the entity responsible for physical removal of the structure; and
- (5) Designation, accompanied by documentation, of a location outside the Special Flood Hazard Area, to which the temporary structure will be moved.

(H) Accessory Structures

When accessory structures (sheds, detached garages, etc.) are to be placed within a Special Flood Hazard Area, the following criteria shall be met:

- (1) Accessory structures shall not be used for human habitation (including working, sleeping, living, cooking or restroom areas);
- (2) Accessory structures shall not be temperature-controlled;
- (3) Accessory structures shall be designed to have low flood damage potential;
- (4) Accessory structures shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters;
- (5) Accessory structures shall be firmly anchored in accordance with the provisions of Section 16.6.1(A);
- (6) All service facilities such as electrical shall be installed in accordance with the provisions of Section 16.6.1(D) and
- (7) Flood openings to facilitate automatic equalization of hydrostatic flood forces shall be provided below regulatory flood protection elevation in conformance with the provisions of Section 16.6.2(D)(3).
- (8) An accessory structure with a footprint less than 150 square feet that satisfies the criteria outlined above does not require an elevation or floodproofing certificate. Elevation or floodproofing certifications are required for all other accessory structures.

16.6.3 Standards For Floodplains Without Established Base Flood Elevations

Within the Special Flood Hazard Areas designated as Approximate Zone A and established in Section 16.5.2, where no Base Flood Elevation (BFE) data has been provided by FEMA, the following provisions, in addition to the provisions of Section 16.6.1, shall apply:

- (A) No encroachments, including fill, new construction, substantial improvements or new development shall be permitted within a distance of 20 feet each side from top of bank or five times the width of the stream, whichever is greater, unless certification with supporting technical data by a registered professional engineer is provided demonstrating that such encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.
- (B) The BFE used in determining the regulatory flood protection elevation shall be determined based on the following criteria:
 - (1) When Base Flood Elevation (BFE) data is available from other sources, all new construction and substantial improvements within such areas shall also comply with all applicable provisions of this Article and shall be elevated or floodproofed in accordance with standards in Sections 16.6.1 and 16.6.2.
 - (2) When floodway data is available from a Federal, State, or other source, all new construction and substantial improvements within floodway areas shall also comply with the requirements of Sections 16.6.2 and 16.6.5.
 - All subdivision, manufactured home park and other development proposals shall provide Base Flood Elevation (BFE) data if the development is greater than 5 acres or has more than 50 lots/manufactured home sites. Such Base Flood Elevation (BFE) data shall be adopted by reference in accordance with Section 16.5.2 and utilized in implementing this Article.
 - (4) When Base Flood Elevation (BFE) data is not available from a Federal, State, or other source as outlined above, the reference level shall be elevated or floodproofed (nonresidential) to or above the Regulatory Flood Protection Elevation. All other applicable provisions of Section 16.6.2 shall also apply.

16.6.4 Standards For Riverine Floodplains With BFE But Without Established Floodways Or Non-Encroachment Areas

Along rivers and streams where BFE data is provided by FEMA or is available from another source but neither floodway nor non-encroachment areas are identified for a Special Flood Hazard Area on the FIRM or in the FIS report, the following requirements shall apply to all development within such areas:

(A) Standards of Sections 16.6.1 and 16.6.2; ands

(B) Until a regulatory floodway or non-encroachment area is designated, no encroachments, including fill, new construction, substantial improvements, or other development, shall be permitted unless certification with supporting technical data by a registered professional engineer is provided demonstrating that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than 1 foot at any point within the community.

16.6.5 Floodways And Non-Encroachment Areas

Areas designated as floodways or non-encroachment areas are located within the Special Flood Hazard Areas established in 16.5.2. The floodways and non-encroachment areas are extremely hazardous areas due to the velocity of floodwaters that have erosion potential and carry debris and potential projectiles. The following provisions, in addition to standards outlined in Sections 16.6.1 and 16.6.2, shall apply to all development within such areas:

- (A) No encroachments, including fill, new construction, substantial improvements and other developments shall be permitted unless:
 - (1) It is demonstrated that the proposed encroachment would not result in any increase in the flood levels during the occurrence of the base flood, based on hydrologic and hydraulic analyses performed in accordance with standard engineering practice and presented to the Ordinance Administrator prior to issuance of floodplain development permit; or
 - (2) A Conditional Letter of Map Revision (CLOMR) has been approved by FEMA. A Letter of Map Revision (LOMR) must also be obtained upon completion of the proposed encroachment.
- **(B)** If Section 16.6.5(A) is satisfied, all development shall comply with all applicable flood hazard reduction provisions of this Article.
- (C) No manufactured homes shall be permitted, except replacement manufactured homes in an existing manufactured home park or subdivision, provided the following provisions are met:
 - (1) The anchoring and the elevation standards of Section 16.6.2(C); and
 - (2) The no encroachment standard of Section 16.6.5(A).

16.6.6 Standards For Areas Of Shallow Flooding (Zone AO)

Located within the Special Flood Hazard Areas established in Section 16.5.2, are areas designated as shallow flooding areas. These areas have special flood hazards associated with base flood depths of 1 to 3 feet where a clearly defined channel does not exist and where the path of flooding is unpredictable and indeterminate. In addition to Sections 16.6.1 and 16.6.2, all new construction and substantial improvements shall meet the following requirements:

- (A) The reference level shall be elevated at least as high as the depth number specified on the Flood Insurance Rate Map (FIRM), in feet, plus a freeboard of 4 feet, above the highest adjacent grade; or at least 4 feet above the highest adjacent grade if no depth number is specified.
- (B) Non-residential structures may, in lieu of elevation, be floodproofed to the same level as required in Section 16.6.6(1) that the structure, together with attendant utility and sanitary facilities, below that level shall be 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. Certification of compliance with these requirements shall be provided to the Ordinance Administrator.
- (C) Adequate drainage paths shall be provided around structures on slopes, to guide floodwaters around and away from proposed structures.

ARTICLE 17- DEFINITIONS

17.2 Flood Damage Prevention

Unless specifically defined below, words or phrases used in this ordinance related to flood damage prevention shall be interpreted so as to give them the meaning they have in common usage and to give the flood damage prevention related portions of this ordinance its most reasonable application.

For the purpose of this Ordinance, certain words or terms used in reference to Flood Damage Prevention herein shall be defined as follows:

Α

ACCESSORY STRUCTURE (APPURTENANT STRUCTURE)

A structure located on the same parcel of property as the principal structure and the use of which is incidental to the use of the primary structure. Garages, carports and storage sheds are common urban accessory structures. Pole barns, hay sheds and the like qualify as accessory structures on farms, and may or may not be located on the same parcel as the farm dwellings or shop building.

ADDITION

An extension or increase in the floor area or height of a building or structure.

APPEAL

A request for review of the Floodplain Administrator's interpretation of any provision of this ordinance.

AREA OF SHALLOW FLOODING

A designated Zone AO on a community's Flood Insurance Rate Map (FIRM) with base flood depths determined to be from one (1) to three (3) feet. These areas are located where a clearly defined channel does not exist, where the path of flooding is unpredictable and indeterminate, and where velocity flow may be evident.

AREA OF SPECIAL FLOOD HAZARD

See Special Flood Hazard Area (SFHA).

В

BASE FLOOD

The flood having a one (1) percent chance of being equaled or exceeded in any given year.

BASE FLOOD ELEVATION

A determination of the water surface elevations of the base flood as published in the Flood Insurance Study. When the BFE has not been provided in a Special Flood Hazard Area, it may be obtained from engineering studies available from a Federal, State, or other source using FEMA approved engineering methodologies. This elevation, when combined with the Freeboard, establishes the Regulatory Flood Protection Elevation.

BASEMENT

Any area of the building having its floor subgrade (below ground level) on all sides.

BUILDING

See Structure.

C

CHEMICAL STORAGE FACILITY

A building, portion of a building, or exterior area adjacent to a building used for the storage of any chemical or chemically reactive products.

D

DEVELOPMENT

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

DISPOSAL

As defined in NCGS 130A-290(a)(6), the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste into or on any land or water so that the solid waste or any constituent part of the solid waste may enter the environment or be emitted into the air or discharged into any waters, including groundwaters.

ELEVATED BUILDING

A non-basement building which has its lowest elevated floor raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns.

ENCROACHMENT

The advance or infringement of uses, fill, excavation, buildings, structures or development into a floodplain, which may impede or alter the flow of capacity of a floodplain.

EXISTING MANUFACTURED HOME PARK OR MANUFACTURED HOME SUBDIVISION

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

F

FLOOD OR FLOODING

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

the overflow of inland or tidal waters and/or the unusual and rapid accumulation of runoff of surface waters from any source.

FLOOD BOUNDARY AND FLOODWAY MAP (FBFM)

An official map of a community, issued by the Federal Emergency Management Agency, on which the Special Flood Hazard Areas and the floodways are delineated. This official map is a supplement to and shall be used in conjunction with the Flood Insurance Rate Map (FIRM).

FLOOD HAZARD BOUNDARY MAP (FHBM)

An official map of a community, issued by the Federal Emergency Management Agency, where the boundaries of the Special Flood Hazard Areas have been defined as Zone A.

FLOOD INSURANCE

The insurance coverage provided under the National Flood Insurance Program.

FLOOD INSURANCE RATE MAP (FIRM)

An official map of a community, issued by the Federal Emergency Management Agency, on which both the Special Flood Hazard Areas and the risk premium zones applicable to the community are delineated.

FLOOD INSURANCE STUDY (FIS)

An examination, evaluation, and determination of flood hazards, corresponding water surface elevations (if appropriate), flood hazard risk zones, and other flood data in a community issued by the Federal Emergency Management Agency. The Flood Insurance Study report includes Flood Insurance Rate Maps (FIRMs) and Flood Boundary and Floodway Maps (FBFMs), if published.

FLOOD PRONE AREA

see Floodplain

FLOODPLAIN

The one percent Annual Chance Floodplain as delineated by the North Carolina Floodplain Mapping Program in the Division of Emergency Management.

FLOODPLAIN ADMINISTRATOR

The individual appointed to administer and enforce the floodplain management regulations.

FLOODPLAIN DEVELOPMENT PERMIT

A permit that is required in conformance with the provisions of this ordinance, prior to the commencement of any development activity within an area subject to the Flood Damage Prevention Regulations in this Ordinance.

FLOODPLAIN MANAGEMENT

The operation of an overall program of corrective and preventive measures for reducing flood damage and preserving and enhancing, where possible, natural resources in the floodplain, including, but not limited to, emergency preparedness plans, flood control works, floodplain management regulations, and open space plans.

FLOODPLAIN MANAGEMENT REGULATIONS

This ordinance and other zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances, and other applications of police power. This term describes Federal, State or local regulations, in any combination thereof, which provide standards for preventing and reducing flood loss and damage.

FLOODPROOFING

Any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitation facilities, structures, and their contents.

FLOODWAY

The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one (1) foot.

FLOOD ZONE

A geographical area shown on a Flood Hazard Boundary Map or Flood Insurance Rate Map that reflects the severity or type of flooding in the area.

FREEBOARD

The height added to the Base Flood Elevation (BFE) to account for the many unknown factors that could contribute to flood heights greater that the height calculated for a selected size flood and floodway conditions, such as wave action, blockage of bridge openings, and the hydrological effect of urbanization of the watershed. The Base Flood Elevation plus the freeboard establishes the Regulatory Flood Protection Elevation.

FUNCTIONALLY DEPENDENT FACILITY

A facility which cannot be used for its intended purpose unless it is located in close proximity to water, limited to a docking or port facility necessary for the loading or unloading of cargo or passengers, shipbuilding, or ship repair. The term does not include long-term storage, manufacture, sales, or service facilities.

Н

HAZARDOUS WASTE MANAGEMENT FACILITY

As defined in NCGS 130A, Article 9, a facility for the collection, storage, processing, treatment, recycling, recovery, or disposal of hazardous waste.

HIGHEST ADJACENT GRADE (HAG)

The highest natural elevation of the ground surface, prior to construction, immediately next to the proposed walls of the structure.

HISTORIC STRUCTURE

Any structure that is:

- 1. Listed individually in the National Register of Historic Places (alisting maintained by the US Department of Interior) or preliminarily determined by the Secretary of Interior as meeting the requirements for individual listing on the National Register;
- 2. Certified or preliminarily determined by the Secretary of 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;
- 3. Individually listed on a local inventory of historic landmarks in communities with a "Certified Local Government (CLG) Program"; or
- 4. Certified as contributing to the historical significance of a historic district designated by a community with a "Certified Local Government (CLG) Program".

Certified Local Government (CLG) Programs are approved by the US Department of the Interior in cooperation with the North Carolina Department of Cultural Resources through the State Historic Preservation Officer as having met the requirements of the National Historic Preservation Act of 1966 as amended in 1980.

L

LOWEST ADJACENT GRADE (LAG)

The elevation of the ground, sidewalk or patio slab immediately next to the building, or deck support, after completion of the building.

LOWEST FLOOR

The lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access, or limited storage in an area other than a basement area is not considered a building's lowest floor, provided that such an enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this ordinance.

MANUFACTURED HOME

A structure, transportable in one or more sections, which is built on a permanent chassis and designed to be used with or without a permanent foundation when connected to the required utilities. The term manufactured home does not include a recreational vehicle.

MANUFACTURED HOME PARK OR SUBDIVISION

A parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

MARKET VALUE

The building value, not including the land value and that of any accessory structures or other improvements on the lot. Market value may be established by independent certified appraisal; replacement cost depreciated for age of building and quality of construction (Actual Cash Value); or adjusted tax assessed values.

MEAN SEA LEVEL

For purposes of this ordinance, the National Geodetic Vertical Datum (NGVD) as corrected in 1929, the North American Vertical Datum (NAVD) as corrected in 1988, or other vertical control datum used as a reference for establishing varying elevations within the floodplain, to which Base Flood Elevations (BFEs) shown on a FIRM are referenced. Refer to each FIRM panel to determine datum used.

Ν

NEW CONSTRUCTION

Structures for which the start of construction commenced on or after the effective date of the initial floodplain management regulations and includes any subsequent improvements to such structures.

NON-ENCROACHMENT AREA

The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one (1) foot as designated in the Flood Insurance Study report.

Ρ

POST-FIRM

Construction or other development for which the start of construction occurred on or after the effective date of the initial Flood Insurance Rate Map.

PRE-FIRM

Construction or other development for which the start of construction occurred before the effective date of the initial Flood Insurance Rate Map.

PRINCIPALLY ABOVE GROUND

At least 51% of the actual cash value of the structure is above ground.

PUBLIC SAFETY AND/OR NUISANCE

Anything which is injurious to the safety or health of an entire community or neighborhood, or any considerable number of persons, or unlawfully obstructs the free passage or use, in the customary manner, of any navigable lake, or river, bay, stream, canal, or basin.

R

REAR LOT LINE

The rear lot line is the line connecting the two side lot lines along the edge of the lot opposite from the frontage line.

RECREATIONAL VEHICLE (RV)

A vehicle which is:

- 1. Built on a single chassis;
- 2. 400 square feet or less when measured at the largest horizontal projection;
- 3. Designed to be self-propelled or permanently towable by a light duty truck; and
- 4. Designed primarily not for use as a permanent dwelling, but as temporary living quarters for recreational, camping, travel, or seasonal use.

REFERENCE LEVEL

The top of the lowest floor for structures within Special Flood Hazard Areas designated as Zone A1-A30, AE, A, A99 or AO.

REGULATORY FLOOD PROTECTION ELEVATION

The Base Flood Elevation plus the Freeboard. In Special Flood Hazard Areas where Base Flood Elevations (BFEs) have been determined, this elevation shall be the BFE plus two (2) feet of freeboard. In Special Flood Hazard Areas where no BFE has been established, this elevation shall be at least two (2) feet above the highest adjacent grade.

REMEDY A VIOLATION

To bring the structure or other development into compliance with State and community floodplain management regulations, or, if this is not possible, to reduce the impacts of its noncompliance. Ways that impacts may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of the ordinance or otherwise deterring future similar violations, or reducing Federal financial exposure with regard to the structure or other development.

RIVERINE

Relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

S

SALVAGE YARD

Any non-residential property used for the storage, collection, and/or recycling of any type of equipment, and including but not limited to vehicles, appliances and related machinery.

SOLID WASTE DISPOSAL FACILITY

Any facility involved in the disposal of solid waste, as defined in NCGS 130A-290(a)(35).

SOLID WASTE DISPOSAL SITE

As defined in NCGS 130A-290(a)(36), any place at which solid wastes are disposed of by incineration, sanitary landfill, or any other method.

SPECIAL FLOOD HAZARD AREA (SFHA)

The land in the floodplain subject to a one percent (1%) or greater chance of being flooded in any given year, as determined by section 16.5.2 of this ordinance.

START OF CONSTRUCTION

Includes substantial improvement, and means 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 a slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of the building, whether or not that alteration affects the external dimensions of a building.

STRUCTURE

A walled and roofed building, a manufactured home, or a gas, liquid, or liquefied gas storage tank that is principally above ground.

SUBSTANTIAL DAMAGE

Damage of any origin sustained by a structure during any one-year period whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred. See definition of substantial improvement. Substantial damage also means 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 percent of the market value of the structure before the damage occurred.

SUBSTANTIAL IMPROVEMENT

Any combination of repairs, reconstruction, rehabilitation, addition, or other improvement of a structure, taking place during any one-year period for which the cost equals or exceeds 50 percent of the market value of the structure before the start of construction of the improvement. This term includes structures which have incurred substantial damage, regardless of the actual repair work performed. The term does not, however, include either:

- 1. Any correction of existing violations of State or community health, sanitary, or safety code specifications which have been identified by the community code enforcement official 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.

VARIANCE

A grant of relief from the requirements of this ordinance.

VIOLATION

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

W

WATER SURFACE ELEVATION (WSE)

The height, in relation to mean sea level, of floods of various magnitudes and frequencies in the floodplains of riverine areas.

WATERCOURSE

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