CHAPTER 12: Flood Damage Prevention

12.1 GENERAL PURPOSE AND INTENT

12.1.1 FINDINGS OF FACT

A. Flood Damage Prevention: The flood prone areas within the jurisdiction of the Town of Tarboro are subject to periodic inundation which can result 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. These flood losses can be caused by the cumulative effect of obstructions in Special Flood Hazard Areas causing increases in flood heights and velocities and by the occupancy in flood prone areas of uses vulnerable to flood and other hazards.

12.1.2 PURPOSE

A. Flood Damage Prevention:

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

a. Restrict or prohibit uses that are dangerous to health, safety, and property due to water or erosion hazards that result in damaging increases in erosion, flood heights, or velocities;

b. Require that uses vulnerable to floods, including facilities that serve such uses, be protected against flood damage at the time of initial construction;

c. Control the alteration of natural Special Flood Hazard Areas, stream channels, and natural protective barriers, which are involved in the accommodation of floodwaters;

d. Control filling, grading, dredging, and all other developments that may increase erosion or flood damage, and;

e. Prevent or regulate the construction of flood barriers that will unnaturally divert floodwaters or which may increase flood hazards to other lands.

2. Specific objectives to the flood damage prevention provisions are as follows:

a. To protect human life and health;

b. To minimize the expenditure of public money for costly flood control projects;

c. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

d. To minimize prolonged business losses and interruptions;

e. To minimize damage to public facilities and utilities;

f. To help maintain a stable tax base by providing for the sound use and development of flood prone areas; and

e. To ensure that potential buyers are aware that property is in a Special Flood Hazard Area.

12.2 FLOOD DAMAGE PREVENTION

12.2.1 ARTIFICIAL OBSTRUCTION WITHIN FLOODWAYS PROHIBITED

A. No artificial obstruction may be located within any floodway, except as provided in §12.2.2 below.

B. The following standards shall apply to any permissible uses as delineated in §12.2.2 or any use allowed by variance:

1. No encroachments, including fill, new construction, substantial improvements, and other developments shall be permitted 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 a base flood discharge.

2. If §12.2.1.B.1 is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions in §12.2.3 of this Ordinance.

3. No manufactured homes shall be permitted nor relocated in a floodway.

12.2.2 PERMISSIBLE USES WITHIN FLOODWAYS

A. Notwithstanding the Permitted Use Table in §2.4.3 of this Ordinance, no permit to make use of land within a floodway may be issued unless the proposed use is listed as allowed both in the Permitted Use Table and is one of the below:

1. General farming, pasture, outdoor plant nurseries, horticulture, forestry, wildlife sanctuary, game farm, and other similar agricultural, wildlife, and related uses.

2. Ground level streets, roads, loading areas, parking areas, rotary aircraft ports, and other similar ground level uses.

3. Lawns, gardens, play areas, and other similar uses.

4. Golf courses, tennis courts, driving ranges, archery ranges, picnic grounds, parks, hiking or horseback riding trails, open space, and similar private and public recreational uses.

B. The uses listed in §12.2.2.A are permissible only if and to the extent that they do not cause any increase in base flood levels, as demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice.

C. Notwithstanding the other provisions of this Chapter, the uses listed in §12.2.A shall be permissible only if and to the extent that any obstructions within the floodway are necessary to accommodate such uses are consistent with the regulations and standards of the Federal Emergency Management Agency.

D. No building may be constructed, and no substantial improvement of any existing building may take place within any floodway.

E. Any accessory structure allowed in §12.2.2.A shall not be used for human habitation.

12.2.3 CONSTRUCTION WITHIN FLOODWAYS AND SPECIAL FLOOD HAZARD AREAS RESTRICTED

A. The use of fill in all special flood hazard areas (100-year floodplains) and 500-year floodplains shall not be used for the purpose of elevating any building located in such areas or for any other purpose except for access to the property.

B. New solid waste disposal facilities, hazardous waste management facilities, salvage yards, and chemical storage facilities are prohibited in the 100-year floodplain except by variance.

C. No new residential building may be constructed and no substantial improvement of a residential building may take place wholly or partially within any area of special flood hazard unless and to the extent that, in the absence of such authorization, the property owner would be deprived of all reasonable use of the property on which such construction is proposed. If new construction within an area of special flood hazard is allowed pursuant to this subsection, then all such construction shall be in conformity with the remaining provisions of this section.

D. No new nonresidential building may be constructed and no substantial improvements of a nonresidential building (with the exception of public utility structures) may take place wholly or partially within any area of special flood hazard unless and to the extent that, in the absence of such authorization, the property owner would be deprived of all reasonable use of the property on which such construction is proposed. If new construction within an area of special flood hazard is allowed pursuant to this subsection, then all such construction shall be in conformity with the remaining provisions of this section.

E. The following general standards shall apply to any permissible use, any public utility structure and any use allowed by variance in an area of special flood hazard, also known as the 100-year floodplain:

1. All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This standard shall be in addition to and consistent with applicable state requirements for resisting wind forces;

2. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage;

3. All new construction or substantial improvements shall be constructed by methods and practices that minimize flood damages. Flood damage includes injury to persons and damage to property caused by an artificial obstruction or substantial improvement, water backed up or diverted by an artificial obstruction or substantial improvement, and by materials or objects being swept downstream during a flood;

4. 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;

5. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;

6. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters;

7. On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding;

8. Any alteration, repair, reconstruction or improvements to a structure which is in compliance with the provisions of this ordinance shall meet the requirements of "new construction" as contained in this article; and

9. Nonconforming buildings or uses may not be enlarged, replaced, or rebuilt unless such enlargement or reconstruction is accomplished in conformance with the provisions of this ordinance. Provided, however, nothing in this article shall prevent the repair, reconstruction, or replacement of a building or structure existing on the effective date of this article and located totally or partially within the Floodway Zone, provided that the bulk of the building or structure below base flood elevation in the Floodway Zone is not increased and provided that such repair, reconstruction, or replacement meets all of the other requirements of this ordinance.

10. Adequate drainage on the property shall be provided to reduce exposure to floods.

F. In all areas of special flood hazard (100-year floodplain) where base flood elevation data has been provided, the following specific standards shall apply to any building authorized pursuant to §12.2.3.B or 12.2.3.C, any public utility structure and any use allowed by variance:

1. **Residential construction.** New construction or substantial improvement of any residential structure shall have the lowest floor, including basement, elevated no lower than three (3) feet above the base flood elevation. This requirement also includes machinery and equipment whose use is directly related to that structure. Should solid foundation perimeter walls be used to elevate a structure, openings sufficient to facilitate the unimpeded movements of floodwaters shall be provided.

2. **Nonresidential construction.** New construction or substantial improvement of any commercial, industrial, or nonresidential structure shall have the lowest floor, including basement, elevated no lower than three (3) feet above the level of the base flood elevation. This requirement also includes machinery and equipment whose use is directly related to that structure. Structures located in A-zones may be floodproofed in lieu of elevation provided that all areas of the structure, including attendant utility and sanitary facilities, below the required elevation are water tight 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. A registered professional engineer or architect shall develop and/or review structural design

3. Manufactured homes.

a. Manufactured homes that are placed or substantially improved on sites (i) outside a manufactured home park or subdivision; (ii) in a new manufactured home park or subdivision; (iii) in an expansion to an existing manufactured home park or subdivision; or (iv) in an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood, must be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated three (3) feet above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

b. Manufactured homes that are to be placed or substantially improved on sites in an existing manufactured home park or subdivision that are not subject to the provisions of subsection (a) above of this ordinance must be elevated so that the lowest floor of the manufactured home is elevated three (3) feet above the base flood elevation, and be securely anchored to an adequately anchored foundation to resist flotation, collapse, and lateral movement.

c. Manufactured homes shall be anchored to prevent flotation, collapse, or lateral movement. For the purpose of this requirement, manufactured homes must be anchored to resist flotation, collapse, or lateral movement in accordance with the Regulations for Mobile Homes and Modular Housing 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 at least thirty-six (36) inches or less above the grade at the site, the chassis shall be supported by reinforced piers or other foundation elements of at least equivalent strength. When the elevation of the chassis is above thirty-six (36) inches in height, the manufactured home chassis shall be supported by reinforced piers or other foundation elements of at least equivalent strength and an engineering certification is required.

d. 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 zoning administrator and the local emergency management coordinator.

G. Recreational vehicles. A recreational vehicle is ready for highway use if it is on wheels or jacking system, is attached to the site only by quick-disconnect type utilities and security devices, and has no permanently attached additions. Recreation vehicles placed on sites shall either:

1. Be on site for fewer than 180 consecutive days;

2. Be fully licensed and ready for highway use; or

3. Meet the requirements of §12.2.3.D and §12.2.3.E.3 and §12.2.6.

H. Elevated buildings. New construction or substantial improvements of elevated buildings that include fully enclosed areas formed by foundation and other exterior walls below the base flood elevation shall be designed to preclude finished living space and designed to allow for the entry and exit of floodwaters to automatically equalize hydrostatic flood forces on exterior walls.

1. Designs for complying with this requirement must either be certified by a professional engineer or architect or meet the following minimum criteria:

a. Provide a minimum of two (2) openings having a total net area of not less than one (1) square inch for every square foot of enclosed area subject to flooding;

b. The bottom of all openings shall be no higher than one (1) foot above grade; and

c. Openings may be equipped with screens, louvers, valves or other coverings or devices provided they permit the automatic flow of floodwaters in both directions.

2. Electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities shall be located a minimum of three (3) feet above base flood elevation except for duct work that shall be located above the base flood elevation. This requirement also includes machinery and equipment whose use is directly related to that structure.

3. Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door) or limited storage of maintenance equipment used in connection with the premises (standard exterior door) or entry to the living area (stairway or elevator).

4. The interior portion of such enclosed area shall not be partitioned or finished into separate rooms, except to enclose storage areas.

I. Temporary structures. Prior to the issuance of a building zoning permit, for a temporary structure, the following requirements must be met:

1. All applicants must submit to the zoning administrator a plan for the removal of such structure(s) in the event of a hurricane or flash flood notification. The plan must include the following information:

   a. The name, address and phone number of the individual responsible for the removal of the temporary structure;

   b. The time frame prior to the event at which a structure will be removed;

   c. A copy of the contract or other suitable instrument with a trucking company to insure the availability of removal equipment when needed; and

   d. Designation, accompanied by documentation, of a location outside the floodplain to which the temporary structure will be moved.

2. The above information shall be submitted in writing to the zoning administrator for review and written approval.

J. Accessory structure. When accessory structures (sheds, detached garages, etc.) with a value of three thousand dollars ($3,000.00) or less, are to be placed in the floodplain the following criteria shall be met:

1. Accessory structures shall not be used for human habitation;

2. Accessory structures shall be designed to have low flood damage potential;

3. Accessory structures shall be firmly anchored in accordance with §12.2.3.D.1; and

4. Service facilities such as electrical and heating equipment shall be elevated in accordance with §12.2.3.D.5.

K. Structure or tank for chemical or fuel storage. A structure or tank for chemical or fuel storage incidental to a use that is allowed under §12.2.3.F or to the operation of a water treatment plant or wastewater treatment facility may be located in a 100-year floodplain only if the structure or tank is either elevated above base flood elevation or designed to be watertight with walls substantially impermeable to the passage of water and with structural components capable of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy.

L. Floodways. Located within areas of special flood hazard are areas designated as floodways. The floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris and potential projectiles and has erosion potential. The following provisions shall apply within such areas:

1. No encroachments, including fill, new construction, substantial improvements and other developments shall be permitted unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in the flood levels during the occurrence of the base flood. Such certification and technical data shall be presented to the administrator.

2. If the requirements of subsection (a) are satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of this section.

3. No manufactured homes shall be permitted, except in an existing manufactured home park or subdivision. A replacement manufactured home may be placed on a lot in an existing manufactured home park or subdivision provided the anchoring and the elevation standards of §12.2.3.E.3 are met and the encroachment standards of subsection (a) above.

M. The following general standards shall apply to any permissible use, any public utility structure and any use allowed by variance (in accordance with §12.2.8 in the 500-year floodplain:

1. All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This standard shall be in addition to and consistent with applicable state requirements for resisting wind forces;

2. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage;

3. All new construction or substantial improvements shall be constructed by methods and practices that minimize flood damages. Flood damage includes injury to persons and damage to property caused by an artificial obstruction or substantial improvement, water backed up or diverted by an artificial obstruction or substantial improvement, and by materials or objects being swept downstream during a flood;

4. 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;

5. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;

6. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters;

7. On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.

8. Adequate drainage on the property shall be provided to reduce exposure to floods.

N. In the 500-year floodplain where base flood elevation data has been provided, the following specific standards shall apply to any permissible use, public utility structure and any use allowed by variance (in accordance with §12.2.8:

1. **Residential construction.** New construction or substantial improvement of any residential structure shall have the lowest floor, including basement, elevated no lower than two (2) feet above the base flood elevation. Should solid foundation perimeter walls be used to elevate a structure, openings sufficient to facilitate the unimpeded movements of floodwaters shall be provided.

2. **Nonresidential construction.** New construction or substantial improvement of any commercial, industrial, or nonresidential structure shall have the lowest floor, including basement, elevated no lower than two (2) feet above the level of the base flood elevation. Structures located in X-zones may be floodproofed in lieu of elevation provided that all areas of the structure below the required elevation are water tight 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. A registered professional engineer or architect shall certify that the standards of this subsection are satisfied. Such certification shall be provided to the official as set forth in §12.2.6.A.7.

3. *Elevated buildings.* New construction or substantial improvements of elevated buildings that include fully enclosed areas formed by foundation and other exterior walls below the base flood elevation shall be designed to preclude finished living space and designed to allow for the entry and exist of floodwaters to automatically equalize hydrostatic flood forces on exterior walls.

    a. Designs for complying with this requirement must either be certified by a professional engineer or architect or meet the following minimum criteria:

    i. Provide a minimum of two (2) openings having a total net area of not less than one (1) square inch for every square foot of enclosed area subject to flooding;

    ii. The bottom of all openings shall be no higher than one (1) foot above grade; and

    iii. Openings may be equipped with screens, louvers, valves or other coverings or devices provided they permit the automatic flow of floodwaters in both directions.

b. Electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities shall be located a minimum of two (2) feet above base flood elevation.

c. Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door) or limited storage of maintenance equipment used in connection with the premises (standard exterior door) or entry to the living area (stairway or elevator).

d. The interior portion of such enclosed area shall not be partitioned or finished into separate rooms, except to enclose storage areas.

O. Located within the areas of special flood hazard and the 500-year floodplain are small streams where no base flood data has been provided or where no floodways have been identified. The following provisions apply within such areas to any permissible use or any use allowed by variance (in accordance with §12.2.8:

1. No encroachments, including fill, new construction, substantial improvements or new development shall be permitted within a distance of the stream bank equal to five (5) times the width of the stream at the top of bank or twenty (20) feet each side from top of bank, 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.

2. If §12.2.3.E.1 is satisfied and base flood elevation data is available from other sources, all new construction and substantial improvements within such areas shall comply with all applicable flood hazard ordinance provisions of §12.2.3 and shall be elevated or floodproofed in accordance with elevations established in accordance with §12.2.6.A.7. When base flood elevation data is not available from a federal, state, or other source, the lowest floor, including basement, shall be elevated at least two (2) feet above the highest adjacent grade.

3. No manufactured home shall be permitted.

P. Whenever any portion of an area of special flood hazard outside of the floodway is filled in with fill dirt, slopes shall be adequately stabilized to withstand the erosive force of the base flood.

12.2.4 SPECIAL PROVISIONS FOR SUBDIVISIONS

A. An applicant for a conditional use permit authorizing a major subdivision and an applicant for minor subdivision plat approval shall be informed by the Administrator of the use and construction restrictions contained within this Chapter if any portion of the land to be subdivided lies within a floodway or Special Flood Hazard Area.

B. Final plat approval for any subdivision containing land that lies within a floodway or Special Flood Hazard Area may not be given unless the plat shows the boundary of the floodway or Special Flood Hazard Area and contains, in clearly discernible print, the following statement:

"Use of land within a floodway or Special Flood Hazard Area is substantially restricted by Chapter 12 of the Town of Tarboro Unified Development Ordinance."

C. A conditional use permit for a major subdivision and final plat approval for any subdivision may not be granted if any portion of one or more lots lies within an area of special flood hazard unless it reasonably appear that, with respect to each lot that lies wholly or partly within an area of special flood hazard:

1. A building of the type that is consistent with the zoning of the property can practically be located in accordance with applicable regulations on the portion of such lot that is located outside the area of special flood hazard; or

2. Such lot has already been developed; or

3. Such lot is formed as the result of an adjustment of lot lines between lots in existence on the effective date of this section, and such readjustment does not result in a previously developable lot being rendered undevelopable; or

4. It plainly appears that such lot is intended to be devoted to a permissible use that does not involve the construction of any building (e.g., a recreational area or open space).

D. All subdivision proposals shall be consistent with the need to minimize flood damage.

E. All subdivision proposals shall have public utilities and facilities such as water, sewer, gas, and electrical systems located and constructed so as to minimize flood damage.

F. All subdivisions shall have adequate drainage provided to reduce exposure to flood hazards.

G. Base flood elevation data shall be provided for subdivision proposals which contain fifty (50) lots or five (5) acres, whichever is less.

12.2.5 WATER SUPPLY AND SANITARY SEWER SYSTEMS IN FLOODWAYS AND SPECIAL FLOOD HAZARD AREAS

Whenever any portion of a proposed development is located within a floodway or Special Flood Hazard Area, the agency or agencies responsible for certifying to the Town the adequacy of the water supply and disposal systems for the development, as described in Chapter 6 of this Ordinance, shall be informed by the developer that a specified area within the development lies within a floodway or Special Flood Hazard Area. Thereafter, approval of the proposed system by that agency shall constitute a certification that:

A. Such water supply system is designed to minimize or eliminate infiltration of flood waters into it.

B. Such sanitary sewer system is designed to eliminate infiltration of flood waters and discharges from it into flood waters.

C. Any on-site sewage disposal system is located to avoid impairment to it or contamination from it during flooding.

12.2.6 PERMIT REQUIREMENTS, CERTIFICATIONS, DUTIES AND RESPONSIBILITIES OF THE ADMINISTRATOR

A. Applications for a zoning, special use, or conditional use permit shall be made to the administrator on forms furnished by the administrator prior to any development activities. The application permit may include, but not be limited to, plans in duplicate drawn to scale showing: the nature, location, dimensions, and elevations of the area in question; existing or proposed structures; land the location of fill materials, storage areas, and drainage facilities. Specifically, the following information is required:

1. Applications for zoning, special use, or conditional use permits shall include a plot plan that shows the 100-year floodplain contour or shall contain a statement that the entire lot is within the floodplain when the lot is within or appears to be within the floodplain as mapped by the Federal Emergency Management Agency or the floodplain identified pursuant to either §12.2.6.B.2, §12.2.3.G , or §12.2.4. The plot plan must be prepared by or under the direct supervision of a registered land surveyor or professional engineer and certified by same.

2. The plot plan required in subsection (1) must show the floodway, if any, as identified by the Federal Emergency Management Agency or the floodway identified pursuant to either §12.2.6.B.2, §12.2.3.G, or §12.2.4.

3. Where base flood elevation data are provided in accordance with a Flood Insurance Rate Map, a Flood Hazard Boundary Map, or §12.2.6.B.2, the application for a permit within the Zone A on the flood insurance rate map shall show:

    a. The elevation (in relation to mean sea level) of the lowest floor (including basement) of all new and substantially improved structures, and

    b. If the structure has been floodproofed in accordance with §12.2.3.E.2, the elevation (in relation to mean sea level) to which the structure was floodproofed.

4. Where the base flood elevation data are not provided, the application for a permit must show construction of the lowest floor at least two (2) feet above the highest adjacent grade.

5. Where any watercourse will be altered or relocated as a result of proposed development, the application for a permit shall include: a description of the extent of watercourse alteration or relocation; an engineering report on the effects of the proposed project on the flood-carrying capacity of the watercourse and the effects to properties located both upstream and downstream; and a map showing the location of the proposed watercourse alteration or relocation.

6. When a structure is floodproofed, the applicant shall provide a certificate from a registered professional engineer or architect that the nonresidential floodproofed structure meets the floodproofing criteria in §12.2.3.E.2.

7. A floor elevation or floodproofing certification is required after the lowest floor is completed. Within twenty-one (21) calendar days of establishment of the lowest floor elevation, or floodproofing by whatever construction means, whichever is applicable, it shall be the duty of the permit holder to submit to the administrator a certification of the elevation of the lowest floor, or floodproofed elevation, whichever is applicable, as built, in relation to mean sea level. Said certification shall be prepared by or under the direct supervision of a registered land surveyor or professional engineer and certified by same. When floodproofing is utilized for a particular building, said certification shall be prepared by or under the direct supervision of a professional engineer or architect and certified by same. Any work done within the twenty-one-day calendar period and prior to submission of the certification shall be at the permit holder's risk. The administrator shall review the floor elevation survey data submitted. Deficiencies detected by such review shall be corrected by the permit holder immediately and prior to further progressive work being permitted to proceed. Failure to submit the survey or failure to make said corrections required hereby shall be cause to issue a stop-work order for the project.

B. The administrator shall review all zoning, special use, or conditional use permits to assure that any development within an area of special flood hazard is reasonably safe from the hazards of flooding and shall:

1. Where base flood elevation data or floodway data are available:

a. Obtain the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures;

b. Obtain, for all structures that have been floodproofed (whether or not such structures contain a basement), the actual elevation (in relation to mean sea level) to which the structure was floodproofed; and

c. Maintain a record of all such information.

2. Where base flood elevation data or floodway data have not been provided:

1. Obtain, review, and reasonably utilize any base flood elevation data and floodway data available from a federal, state or other source, including data developed pursuant to §12.2.4.G, for enforcing the requirements set forth in Part I of this article; and

b. Obtain and record the actual elevation constituting the highest adjacent grade, to which all new or substantially improved structures are elevated or floodproofed.

c. Maintain a record of all such information.

C. Notify, in riverine situations, adjacent communities, the N .C. Department of Crime Control and Public Safety, Division of Emergency Management prior to any alteration or relocation of a watercourse, and submit copies of such notification to the Federal Emergency Management Agency.

D. Ensure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained.

E. Ensure that all necessary permits have been received from those agencies from which approval is required by federal or state law.

F. When floodproofing is utilized for a particular structure, obtain certifications from a registered professional engineer or architect in accordance with §12.2.30.E.2.

G. Where interpretation is needed as to the exact location of boundaries of the areas of special flood hazard (for example, where there appears to be a conflict between a mapped boundary and actual field conditions), make the necessary interpretation. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in this article.

H. Provide the North Carolina Department of Crime Control and Public Safety, Division of Emergency Management, State Coordinator for the National Flood Insurance Program with two (2) copies of the maps delineating new corporate limits within six (6) months from the date of annexation or change in corporate boundaries.

I. Prevent encroachment within floodways unless the certification and flood hazard reduction provisions of §12.2.3 are met.

J. Make on-site inspections of projects, issue notices of violations, revoke permits and take corrective action in accordance with the provisions of this article.

K. Notify the North Carolina Secretary of Crime Control and Public Safety of its intention to grant a variance under §12.2.8.B.4 at least thirty (30) days prior to the granting of the variance.

12.2.7 LOCATION OF BOUNDARIES OF SPECIAL FLOOD HAZARD AREAS AND FLOODWAYS

As used in this article, the terms Special Flood Hazard Areas and floodway refer in the first instance to certain areas whose boundaries are determined and can be located on the ground by reference to the specific fluvial characteristics set forth in the definitions of these terms. These terms also refer to overlay zoning districts whose boundaries are the boundaries of the floodways and Special Flood Hazard Areas shown on the most recently adopted Flood Insurance Rate Maps, which boundaries are intended to correspond to the actual, physical location of floodways and Special Flood Hazard Areas. (These overlay districts thus differ from other zoning districts whose boundaries are established solely according to planning or policy, rather than physical, criteria.) Therefore, the Administrator is authorized to make necessary interpretations as to the exact location of the boundaries of floodways or Special Flood Hazard Areas if there appears to be a conflict between a mapped boundary and actual field conditions. Such interpretations, like other decisions of the Administrator, may be appealed to the Board of Adjustment in accordance with the applicable provisions in Chapter 15 of this Ordinance.

12.2.8 AMENDMENTS TO THE OFFICIAL FLOOD HAZARD ZONING, FLOOD HAZARD BOUNDARY MAP, VARIANCE PROCEDURES

A. Amendments to the official flood hazard zoning and flood hazard boundary map.

1. All requests for revisions of areas of special flood hazard boundaries and base flood elevations shall be reviewed and approved by the Federal Emergency Management Agency.

2. The existing location of any area of special flood hazard as hereinabove defined may be amended in cases where:

a. A flood control project of the federal, state, county or town government has substantially altered the flood hazard;

b. Flood data indicates that the boundaries of either of the areas as shown on the official flood boundary and floodway map are no longer correct; or

c. A private individual, corporation, firm or town agency has submitted plans for a channel improvement or relocation requiring an amendment to the official flood hazard boundary map.

B. Variance procedures.

1. In passing upon an application for a variance, the board of adjustment shall consider all technical evaluations, all relevant factors, all standards specified in other sections of this ordinance, and:

a. The danger that materials may be swept onto other lands to the injury of others;

b. The danger of life and property due to flooding or erosion damage;

c. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;

d. The importance of the services provided by the proposed facility to the community;

e. The necessity of the facility of a waterfront location, where applicable.

f. The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;

g. The compatibility of the proposed use with existing and anticipated development.

h. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;

i. The safety of access to the property in times of flood for ordinary and emergency vehicles;

j. The expected heights, velocity, duration, rate of rise and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site; and;

h. The costs of providing governmental services during and after flood conditions including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges. Upon consideration of the factors listed above and the purposes of this ordinance, the planning board may attach such conditions to the granting of variances as it deems necessary to further the purposes of this

ordinance. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

2. Conditions for variances.

a. Variances may not be issued when the variance will make the structure in violation of other federal, state, or local laws, regulations, or ordinances.

b. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

c. Variances shall only be issued upon (i) a showing of good and sufficient cause; (ii) a determination that failure to grant the variance would result in exceptional hardship; and (iii) a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisance, cause fraud on or victimization of the public, or conflict with existing local law or ordinances.

d. Any applicant to whom a variance is granted shall be given written notice specifying the difference between the base flood elevation and the elevation to which the structure is to be built and a written statement that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation. Such notification shall be maintained with a record of all variance actions.

e. The local administrator shall maintain the records of all appeal actions and report any variances to the Federal Emergency Management Agency upon request.

3. Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or the State Inventory of Historic Places without regard to the procedures set forth in subsections §12.2.8.B.1 and §12.2.8.B.2.

4. In addition to the factors to be considered under §12.2.8.B.1 and the conditions required by §12.2.8.B.2, the board of adjustment may grant a variance to allow new solid waste disposal facilities, hazardous waste management facilities, salvage yards, or chemical storage facilities only if the board finds that *all* four of the following have been satisfied:

a. The use serves a critical need in the community;

b. No feasible location exists for the location of the use outside the 100-year floodplain;

c. The lowest floor of any structure is elevated above the base flood elevation or is designed to be watertight with walls substantially impermeable to the passage of water and with structural components capable of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy; and

d. The use complies with all other applicable laws and regulations.

12.2.9 REGULATIONS DO NOT GUARANTEE FLOOD PROTECTION

The degree of flood protection required by this Ordinance is considered reasonable for regulating purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increase by manmade or natural causes.

12.2.10 SETBACKS FROM STREAMS OUTSIDE OF DESIGNATED FLOODPLAINS

In any area that is located outside of a designated Special Flood Hazard Area but where a stream is located, no building or fill may be located within a distance of the stream bank equal to 20 feet on each side.

12.2.11 ACQUISITION OF EXISTING STRUCTURES

The Town may acquire, by purchase or exchange, or condemnation, an existing structure located in the 100-year floodplain or 500-year floodplain if the Town Council determines that acquisition is necessary to prevent damage from flooding. The procedure in all condemnation proceeding pursuant to this Section shall conform as nearly as possible to the procedure provided in N.C.G.S §4, Article 3.