

**ORDINANCE 2017-07**

**AN ORDINANCE AMENDING TITLE 5, PLANNING AND DEVELOPMENT, CHAPTER 4, ZONING, ARTICLE 8, FLOOD DAMAGE PREVENTION, OF THE CITY OF ISLE OF PALMS CODE OF ORDINANCES TO PROVIDE A DEFINITION FOR THE NEW REFERENCE DATUM TO BE USED FOR THE BASE FLOOD ELEVATION SHOWN ON THE FLOOD INSURANCE RATE MAPS (FIRM); TO DELETE THE TIME PERIOD FOR MEASURING SUBSTANTIAL IMPROVEMENTS; AND TO PROVIDE A MINIMUM ELEVATION FOR NEW RESIDENTIAL AND NONRESIDENTIAL CONSTRUCTION.**

BE IT ORDAINED AND ENACTED BY THE MAYOR AND COUNCIL MEMBERS OF THE CITY OF ISLE OF PALMS, SOUTH CAROLINA, IN CITY COUNCIL ASSEMBLED:

SECTION 1. That the provisions contained in Article 8, "Flood Damage Prevention," of Chapter 4, Title 5, are hereby amended as set forth in Exhibit A attached hereto and incorporated herein by reference as if set forth verbatim.

SECTION 2. That should any part of this Ordinance be held invalid by a Court of competent jurisdiction, the remaining parts shall be severable therefrom and shall continue to be in full force and effect.

SECTION 3. That all ordinances or parts of ordinances conflicting with the provisions of this Ordinance are hereby repealed insofar as the same affect this Ordinance.

SECTION 4. That this Ordinance take effect and be in full force immediately.

PASSED AND APPROVED BY THE CITY COUNCIL FOR THE CITY OF ISLE OF PALMS, ON THE \_\_\_\_\_ DAY OF \_\_\_\_\_, 2018.

\_\_\_\_\_  
Jimmy Carroll, Mayor

(Seal)

Attest:

\_\_\_\_\_  
Marie B. Copeland, City Clerk

First Reading: \_\_\_\_\_

Public Hearing: \_\_\_\_\_

Second Reading: \_\_\_\_\_

Ratification: \_\_\_\_\_

**EXHIBIT A**  
TITLE 5 – PLANNING AND DEVELOPMENT  
CHAPTER 4 - ZONING  
ARTICLE 8. - FLOOD DAMAGE PREVENTION

Sec. 5-4-151. - Statutory authorization.

Pursuant to S.C. Code 1976, § 6-29-710, as amended, the Legislature of the State has delegated the authority to local governments to adopt regulations designed to protect against and secure safety from floods. Therefore, the City Council hereby adopts the provisions set forth in this article.

Sec. 5-4-152. - Findings of fact.

- (a) The flood hazard areas of the City 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 for flood protection and relief, and impairment of the tax base, all of which adversely affects the public health, safety and general welfare.
- (b) 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 hazard areas by uses vulnerable to floods or hazardous to other lands which are inadequately elevated, floodproofed, or otherwise unprotected from flood damages.

Sec. 5-4-153. - Statement of purpose.

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

- (1) Restrict or prohibit uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;
- (2) Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- (3) Control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of floodwaters; and
- (4) Regulate developments which may increase erosion or flood damage; and, regulate the construction of structures which will unnaturally divert floodwaters which may increase flood hazards to other lands.

Sec. 5-4-154. - Objectives.

The objectives of this article are:

- (1) To protect human life and health;
- (2) To minimize expenditure of public money for costly flood control projects;
- (3) To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- (4) To minimize prolonged business interruptions;
- (5) To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in floodplains;
- (6) To help maintain a stable tax base by providing for the sound use and development of floodprone areas in such a manner as to minimize future flood blight areas;
- (7) To encourage notification to potential real property buyers that a property is located in a special flood hazard area.

Sec. 5-4-155. - Definitions.

The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

*Appeal* means a request for a review of the Building Official's interpretation of any provisions of this chapter or a request for a variance.

*Area of special flood hazard* means the land in the floodplain within a community subject to a one percent (1%) or greater chance of flooding in any given year.

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

*Base flood elevation* means the water surface elevations of the base flood as determined by the Federal Insurance Administrator of the National Flood Insurance Program (NFIP).

*Basement* means any area of the building having its floor subgrade (below ground level) on all sides.

*Building* means any structure built for support, shelter, or enclosure for any occupancy or storage.

*Coastal high hazard area* means an area of special flood hazard extending from offshore to the inland limit of a primary frontal dune along an open coast and any other area subject to high velocity wave action from storms or seismic sources.

*Development* means any manmade change to improved or unimproved real estate, including, but not limited to, building or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations.

*Expansion to an existing manufactured home park or manufactured home subdivision* means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, either final site grading or pouring of concrete pads, or the construction of streets). Any expansion is considered new construction.

*Existing Construction* means, for the purposes of determining rates, structures for which the start of construction commenced before January 1, 1975.

*Fair market value of a structure* means:

- (i) The appraised value of the structure prior to the start of the initial repair or improvement; or
- (ii) In the case of damage, the appraised value of the structure prior to the damage occurring.

*Flood or flooding* means a general and temporary condition of partial or complete inundation of normally dry land areas from:

- a. The overflow of inland or tidal waters;
- b. The unusual and rapid accumulation of runoff of surface waters from any source.

*Flood Hazard Boundary Map (FHBM)* means an official map of a community, issued by the Federal Emergency Management Agency (FEMA), where the boundaries of the areas of special flood hazard have been defined as Zone A.

*Flood Insurance Rate Map (FIRM)* means an official map of a community, on which the Federal Emergency Management Agency (FEMA) has delineated both the special flood hazard areas and the risk premium zones applicable to the community.

*Flood Insurance Study* means the official report provided by the Federal Emergency Management Agency (FEMA). The report contains flood profiles, as well as the Flood Boundary-Floodway Map and the water surface elevation of the base flood.

*Freeboard* means a factor of safety usually expressed in feet above a flood level for purposes of flood plain management. "Freeboard" tends to compensate for the many unknown factors that could contribute

to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, bridge openings, and the hydrological effect of urbanization of the watershed.

*Functionally dependent use* means a use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term "functionally dependent use" includes only docking or port facilities necessary for the loading and unloading of cargo or passengers, shipbuilding and ship repair facilities. The term "functionally dependent use" does not include long-term storage, manufacture, sales, or service facilities.

*Highest adjacent grade* means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

*Historic Structure* means any structure that is: (a) listed individually in the National Register of Historic Places (a listing maintained by the U.S. Department of the Interior (DOI)) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register; (b) certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district; (c) individually listed on a State inventory of historic places; (d) individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified (1) by an approved State program as determined by the Secretary of Interior, or (2) directly by the Secretary of Interior in states without approved programs. Some structures or districts listed on the State or local inventories MAY NOT be "Historic" as cited above, but have been included on the inventories because it was believed that the structures or districts have the potential for meeting the "Historic" structure criteria of the DOI. In order for these structures to meet NFIP historic structure criteria, it must be demonstrated and evidenced that the South Carolina Department of Archives and History has individually determined that the structure or district meets DOI historic structure criteria.

*Lowest floor* means the lowest floor of the lowest enclosed area, including basement. Any unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area, is not considered a building's lowest floor provided that such enclosure is not built so as to render the structure in violation of other provisions of this article.

*Mean sea level* means the average height of the sea for all stages of the tide. It is used as a reference for establishing various elevations within the floodplain. For purposes of this article, the term is synonymous with the National Geodetic Vertical Datum (NGVD) of 1929, North American Vertical Datum (NAVD 88) of 1988, or other datum, to which the base flood elevations shown on a community's Flood Insurance Rate Maps (FIRM) are shown.

*Manufactured home* means a structure, transportable in one (1) 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. It does not include recreational vehicles or travel trailers.

*National Geodetic Vertical Datum (NGVD), as corrected in 1929*, means elevation reference points set by National Geodetic Survey based on mean sea level.

*North American Vertical Datum of 1988 (NAVD 88)*, means a vertical control used as the reference datum on new Flood Insurance Rate Maps.

*New construction* means structures for which the start of construction commenced on or after the effective date of the ordinance from which this article is derived.

*New manufactured home park or manufactured home subdivision* means a parcel or contiguous parcels of land divided into two (2) or more manufactured home lots for rent or sale for which the construction of facilities for servicing the lot on which the manufactured home is to be affixed (including, at a minimum, the installation of utilities, either final site grading or the pouring of concrete pads, and the construction of streets) is completed on or after the effective date of the ordinance from which this article is derived.

*Primary Frontal Dune* means a continuous or nearly continuous mound or ridge of sand with relatively steep seaward and landward slopes immediately landward and subject to erosion and overtopping from

high tides and waves during coastal storms. The inland limit of the primary frontal dune occurs at the point where there is a distinct change from a relatively steep slope to a relatively mild slope.

*Recreational vehicle* means a vehicle which is:

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

*Sand dunes* means naturally occurring or manmade accumulations of sand in ridges or mounds landward of the active beach.

*Start of construction, for other than new construction and substantial improvements under the Coastal Barrier Resources Act, includes substantial improvement, and* means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, or improvement was within one hundred eighty (180) days of the permit date. The actual start means the first placement of permanent construction of a structure on a site, such as the pouring of slabs or footings, installation of piles, 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 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 building. For substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor or other structural part of a building, whether or not that alteration affects the external dimension of the building.

*Structure* means a walled and roofed building that is principally above ground, a manufactured home or a gas or liquid storage tank.

*Substantial damage* means damage of any origin sustained by a structure whereby the cost of restoring the structure to its pre-damaged condition equals or exceeds fifty percent (50%) of the fair market value of the structure before the damage occurred.

*Substantial improvement* means any combination of repairs, reconstruction, alteration, additions or improvements to a structure in which the total cost equals or exceeds fifty percent (50%) of the fair market value of the structure before the start of construction. The term "substantial improvement" does not, however, include either:

- (i) Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications identified by the Building Official which are the minimum necessary to ensure safe living conditions; or
- (ii) Any alteration of a structure listed on a National Register of Historic Places or a State Inventory of Historic Places, provided that the alteration will not preclude the structure's continued designation as a historic structure.

*Variance* means a grant of relief to a property owner from the requirements of this article which permits construction in a manner otherwise prohibited by this article where specific enforcement would result in unnecessary hardship to the owner.

*Violation* means the failure of a structure or other development to be fully compliant with this article.

Sec. 5-4-156. - Areas in which this article applies.

This article applies to all property in the City identified as areas of special flood hazard by the Federal Emergency Management Agency (FEMA) in its Flood Insurance Study dated November 17, 2004 with accompanying maps and other supporting data.

Sec. 5-4-157. - Basis for establishing the areas of special flood hazard.

The special flood hazard areas identified by the Federal Emergency Management Agency (FEMA) in its Flood Insurance Rate Map (FIRM) and Flood Insurance Study dated November 17, 2004, with all attachments thereto, are hereby adopted by reference and made a part of this article as fully and completely as if set forth herein verbatim.

Sec. 5-4-158. - Establishment of building and/or zoning permit.

A building/zoning permit shall be required in conformance with the provisions of this article prior to the commencement of any development activities.

Sec. 5-4-159. - Compliance.

No structure or land shall hereafter be located, extended, converted, or structurally altered without full compliance with the terms of this article and other applicable regulations.

Sec. 5-4-160. - Abrogation and greater restrictions.

Where this article and any other provision of this Code conflict or overlap, whichever provision imposes the more stringent restrictions shall prevail. If two (2) or more flood zones or base flood elevations transect a structure, the structure shall conform to the most stringent zone and the highest base flood elevation.

Sec. 5-4-161. - Interpretation.

In the interpretation and application of this article, all provisions shall be:

- (1) Considered a minimum requirement;
- (2) Liberally construed in favor of the City Council; and
- (3) Deemed neither to limit nor repeal any other powers granted under state statutes.

Sec. 5-4-162. - Partial invalidity and severability.

In the event any section, subsection, sentence, clause or phrase contained in this article shall be declared or adjudicated to be invalid or unconstitutional by a court of competent jurisdiction, all the remaining provisions of this article shall be and remain in full force and effect.

Sec. 5-4-163. - 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 considerations. Larger floods can and will occur. Flood heights may be increased by manmade or natural causes. This article does not imply that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damage. This article shall not create liability on the part of the City or by any officer or employee thereof for any flood damage that results from reliance on or compliance with this article or any administrative decision made hereunder.

Sec. 5-4-164. - Penalties for violation.

Violation of the provisions of this article or failure to comply with any of its requirements, including violation of conditions and safeguards established in connection with grants of variance or special exceptions, shall constitute a misdemeanor. Any person who violates this article or fails to comply with any of its requirements shall, upon conviction thereof, be punished as provided in section 1-3-66, and in addition

shall pay all costs and expenses involved in the case. Each day such violation continues shall be considered a separate offense. Nothing herein contained shall prevent the City from taking such other lawful action as is necessary to prevent, enjoin or remedy any violation.

Sec. 5-4-165. - Administration; designation of Building Official.

The Building Official is hereby appointed to administer and implement the provisions of this article.

Sec. 5-4-166. - Adoption of letter of map revision (LOMR).

All LOMRs that are issued in the areas identified in section 5-4-156 are hereby adopted.

Sec. 5-4-167. - Permit procedures and certification requirements.

a) *Permit:* Application for a building/zoning permit shall be made to the Building Official on forms provided by him, prior to any development activities, and may include, but not be limited to, the following plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, fill, storage of materials; drainage facilities, and the location of the foregoing. Specifically, the following information is required:

- (1) Elevation in relation to mean sea level of the proposed lowest floor (including basement) of all structures.
- (2) Elevation in relation to mean sea level to which any nonresidential structure will be floodproofed.
- (3) A certificate from a registered professional engineer or architect that the nonresidential floodproofed structure meets the floodproofing criteria in section 5-4-171(b).
- (4) Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

b) *Certifications:*

- (1) *During Construction* - A floor elevation or floodproofing certification is required after the lowest floor is completed, or in instances where the structure is subject to the regulations applicable to coastal high hazard areas, after placement of the horizontal structural members of the lowest floor. Within twenty-one (21) calendar days of establishment of the lowest floor elevation, or floodproofing by whatever construction means, or upon placement of the horizontal structural members of the lowest floor, whichever is applicable, it shall be the duty of the permit holder to submit to the Building Official a certification of the elevation of the lowest floor, floodproofed elevation, or the elevation of the lowest habitable floor, whichever is applicable, as built, in relation to the 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 (21) calendar day period and prior to submission of the certification shall be at the permit holder's risk. The Building Official shall review the floor elevation survey date 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 may result in the issuance of a stop work order for the project from the Building Official.
- (2) *As-built Certification* - Upon completion of the development a registered professional engineer, land surveyor or architect, in accordance with SC law, shall certify according to the requirements section that the development is built in accordance with the submitted plans and previous pre-development certifications.

Sec. 5-4-168. - Duties and responsibilities of the Building Official.

Duties of the Building Official shall include, but not be limited to, the following:

- (1) Review all building and zoning permits to ensure compliance with this article.

- (2) Advise permittees that additional Federal or State or City permits may be required, and, if specific Federal or State or City permits are known to the Building Official, require that copies of such be provided and maintained on file with the building/zoning permit.
- (3) Notify adjacent communities and the State Coordinator, Flood Mitigation Program, S.C. Land, Water and Conservation Division of the South Carolina Department of Natural Resources prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency (FEMA).
- (4) Ensure that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished.
- (5) Verify and record the actual elevation (in relation to mean seal level) of the lowest floor (including basement) of all new or substantially improved structures, in accordance with section 5-4-167(b).
- (6) Verify and record the actual elevation, in relation to mean sea level, to which the new or substantially improved structures have been floodproofed, in accordance with section 5-4-171(b).
- (7) In coastal high hazard areas, certification shall be obtained from a registered professional engineer or architect that the structure is securely anchored to adequately anchored pilings or columns in order to withstand the effects of wind and water loads acting simultaneously on the building.
- (8) In coastal high hazard areas, the Building Official shall review plans for adequacy of breakaway walls in accordance with section 5-4-171(e)8.
- (9) When floodproofing is utilized for a particular structure, require certification from a registered professional engineer or architect.
- (10) 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.
- (11) When base flood elevation data has not been provided in accordance with section 5-4-157, then the Building Official shall either:
  - (a) Obtain, review, and utilize any base flood elevation data available from a federal, state or other source, in order to administer the provisions of sections 5-4-170 and 5-4-171; or
  - (b) Require the applicant to obtain and reasonably utilize any base flood elevation data available from a federal, state or other source, and to determine the base flood elevation in accordance with accepted hydrologic and hydraulic engineering practices.
- (12) Before a certificate of occupancy is issued for a structure, inspect the premises to ensure that the requirements of this article have been met.
- (13) All records pertaining to the provisions of this article shall be maintained in the Office of the City Clerk and shall be made available for public inspection.

Sec. 5-4-169. - Variance procedures.

- (a) The City's Board of Zoning Appeals shall hear and decide appeals and requests for variances hereunder.
- (b) The Board of Zoning Appeals shall hear and decide appeals when it is alleged that there is an error in any requirements, decisions, or determinations made by the Building Official in the enforcement or administration of this article.
- (c) Any person aggrieved by the decision of the Board may appeal such decision to a court of competent jurisdiction as provided by law.
- (d) Notwithstanding any other provision in this article to the contrary, variances may be issued for repair or rehabilitation of historic structures listed on the National Register of Historic Places or the State Inventory of Historic Places upon a finding by the Board that the proposed repair or rehabilitation will

not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.

- (e) In considering appeals or request for variances, the Board shall consider all technical evaluations, all relevant factors, all standards specified in other sections of this article and:
  - (1) The danger that materials may be swept onto other lands to the injury of others;
  - (2) The danger to life and property due to flooding or erosion damage;
  - (3) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
  - (4) The importance to the community of the services provided by the proposed facility; (5) The necessity to the facility of a waterfront location, where applicable;
  - (6) The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
  - (7) The compatibility of the proposed use with existing and anticipated development;
  - (8) The relationship of the proposed use to the comprehensive plan and flood plan management program for that area;
  - (9) The safety of access to the property during floods for emergency and nonemergency vehicles;
  - (10) The expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site; and
  - (11) 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.
- (f) The Board may attach such conditions to the granting of a variance hereunder as it deems necessary to further the purposes of this article.
- (g) Variances shall not be issued within any designated regulatory floodway if any increase in flood levels during the base flood discharge would result.
- (h) Requirements for variances.
  - (1) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
  - (2) 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 to the applicant; 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 nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.
  - (3) Any applicant to whom a variance is granted shall be given written notice by the Board that the issuance of a variance to construct a structure below the base flood level will result in substantially increased premium rates for the flood insurance as specified by the Federal law.
  - (4) The City Clerk shall maintain the records of all appeal actions and report any variances to the Federal Emergency Management Agency (FEMA) as required by law.

Sec. 5-4-170. - General standards.

In all areas of the City the following provisions are required:

- (a) All new construction and substantial improvements shall be anchored to prevent flotation, collapse or 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 damage.
- (d) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.
- (e) 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 floodwaters.
- (f) On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.
- (g) Any alteration, repair, reconstruction, or improvements to an existing structure which has the lowest floor, including basement, elevated to the base flood elevation or 14 feet NGVD (13 feet NAVD 88), whichever is higher, shall meet the requirements of new construction as contained in sections 5-4-171(a) and (c) of this article.
- (h) Any alteration, repair, reconstruction, or improvements to an existing structure which has the lowest floor, including basement, below the base flood elevation or 14 feet NGVD (13 feet NAVD 88), whichever is higher, shall meet the requirements contained in sections 5-4-171(b) and (d) of this article, provided that no new floor elevation shall be lower than the existing floor elevation.
- (i) 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 flooding.
- (j) Public utilities and facilities are constructed so as to minimize flood damage and provide adequate drainage.

Sec. 5-4-171. - Specific standards.

In all areas of the City, the following provisions are required:

- (a) *Residential new construction.* New construction, of any residential structure shall have the lowest floor, including basement, elevated no lower than the base flood elevation or 14 feet NGVD (13 feet NAVD 88), whichever is higher. Where permitted, solid foundation perimeter walls used to elevate a structure shall have openings sufficient to facilitate the unimpeded movements of floodwater. The elevation of the lowest floor shall be documented and provided to the Building Official using an elevation certificate in accordance with section 5-4-167(b).
- (b) *Residential substantial improvement or the repair of substantial damage.* Substantial improvement or the repair of substantial damage of any residential structure shall have the lowest floor, including basement, elevated no lower than the base flood elevation. Where permitted, solid foundation perimeter walls used to elevate a structure shall have openings sufficient to facilitate the unimpeded movements of floodwater. The elevation of the lowest floor shall be documented and provided to the Building Official using an elevation certificate in accordance with section 5-4-167(b).
- (c) *Nonresidential new construction.* New construction, of any commercial, industrial, or nonresidential structure shall have the lowest floor, including basement, elevated no lower than the level of the base flood elevation or 14 feet NGVD (13 feet NAVD 88), whichever is higher. Structures may be floodproofed in lieu of elevation, provided that all areas of the structure below the required 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. A registered professional engineer or architect shall document and certify to the Building Official that the standards of this subsection are satisfied, using a certificate in accordance with section 5-4-167(b).

- (d) *Nonresidential substantial improvement or the repair of substantial damage.* Substantial improvement or the repair of substantial damage of any commercial, industrial, or nonresidential structure shall have the lowest floor, including basement, elevated no lower than the level of the base flood elevation. Structures located in A-zones may be floodproofed in lieu of elevation, provided that all areas of the structure below the required 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. A registered professional engineer or architect shall document and certify to the Building Official that the standards of this subsection are satisfied, using a certificate in accordance with section 5-4-167(b).
- (e) *Enclosed areas below the base flood elevation or 14 feet NGVD (13 feet NAVD 88), whichever is higher.* New construction and substantial improvements of elevated buildings that include fully enclosed areas formed by foundation and other exterior walls below the base flood elevation that are usable solely for the parking of vehicles, building access, or storage shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for complying with this requirement must either be certified by a professional engineer or architect or meet the following minimum criteria:
1. A minimum of two (2) openings having a total net area of not less than one (1) square inch per square foot of enclosed area subject to flooding shall be provided. For the purpose of compliance with this article, windows are not included.
  2. The bottom of all opening shall be no higher than one foot (1') above grade.
  3. Openings may be equipped with screens, louvers, valves or other coverings or devices, provided they permit the unimpeded entry and exit of floodwaters.
  4. The interior portion of such enclosed area shall not be partitioned or finished into separate rooms.
  5. Only the portions of openings that are below the base flood elevation (BFE) can be counted towards the required net open area.
  6. Fill placed around foundation walls must be graded so that the grade inside the enclosed area is equal to or higher than the adjacent grade outside the building on at least one side of the building.
- (f) *Temporary structure.* No temporary structures shall be placed in a floodway or coastal high hazard area, or in any area of special flood hazard within the corporate limits of the City unless a permit is obtained from the Zoning Administrator. No such permit shall be issued unless the latest FEMA guidelines regarding such structures are met.
- (g) *Coastal high hazard areas (V zones).* Located within the areas of special flood hazard established in section 5-4-157 are areas designated as coastal high hazard areas. These areas have special flood hazards associated with wave-wash; therefore, the following provisions shall apply:
1. All new construction and substantial improvement shall be located landward of the reach of the mean high tide, first line of stable natural vegetation, and comply with all applicable Department of Health and Environmental Control (DHEC) Ocean and Coastal Resource Management (OCRM) setback requirements.
  2. All new construction shall be elevated so that the bottom of the lowest horizontal structural member supporting the lowest floor (excluding pilings or columns) is located no lower than the base flood elevation level or 14 feet NGVD (13 feet NAVD 88), whichever is higher, with all space below the lowest supporting member open so as not to impede the flow of water. Open lattice work or decorative screening may be permitted for aesthetic purposes only and

must be designed to wash away in the event of flood and wave action and in accordance with subsection (e)9 of this section.

3. All substantial improvements and repairs to substantial damage of any structure shall be elevated so that the bottom of the lowest horizontal structural member supporting the lowest floor (excluding pilings or columns) is located no lower than the base flood elevation with all space below the lowest supporting member open so as not to impede the flow of water. Open lattice work or decorative screening may be permitted for aesthetic purposes only and must be designed to wash away in the event of flood and wave action and in accordance with subsection (e)9 of this section.
  4. All new construction and substantial improvement shall be securely anchored on pilings or columns.
  5. All pile and column foundations and structures attached thereto shall be anchored to resist flotation, collapse, and lateral movement due to the effect of wind and water loads acting simultaneously on all building components. Water loading values shall equal or exceed the base flood. Wind loading values shall be in accordance with the latest edition of the building code or One- and Two-Family Dwelling Code adopted by the City.
  6. Compliance with provisions contained in subsection (e)2, 3 and 5 of this section shall be certified by a licensed professional engineer or architect.
  7. There shall be no fill used as structural support.
  8. There shall be no alteration of sand dunes, which would increase potential flood damage.
  9. Lattice work or decorative screening shall be allowed below the base flood elevation provided they are not part of the structural support of the building and are designed so as to break away, under base flood or lesser conditions, without causing collapse, displacement or other structural damage to the elevated portion of the building or supporting foundation system and provided the following design specifications are met:
    - a. No solid walls are allowed; and
    - b. Materials shall consist of open wooden lattice or insect screening.
  10. Space enclosed by lattice or screening shall not be used for human habitation.
  11. Prior to construction, plans for any structure that will have lattice work or decorative screening must be submitted to the Building Official for approval.
  12. Any alteration, repair, reconstruction or improvement to a structure shall not enclose the space below the lowest floor except for lattice work or decorative screening, as provided for in subsection (e)9 and 10 of this section.
- (f) *Recreational vehicles.* Recreational vehicles placed on lots shall be fully licensed and ready for highway use. A recreational vehicle is ready for highway use if it is on wheels or jacking system, attached to the site only by quick-disconnect-type utilities and security devices, and has no permanently attached additions.

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**EXHIBIT A**  
**TITLE 5 – PLANNING AND DEVELOPMENT**  
**CHAPTER 4 - ZONING**  
**ARTICLE 8. - FLOOD DAMAGE PREVENTION**

Sec. 5-4-151. - Statutory authorization.

Pursuant to S.C. Code 1976, § 6-29-710, as amended, the Legislature of the State has delegated the authority to local governments to adopt regulations designed to protect against and secure safety from floods. Therefore, the City Council hereby adopts the provisions set forth in this article.

Sec. 5-4-152. - Findings of fact.

- (a) The flood hazard areas of the City 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 for flood protection and relief, and impairment of the tax base, all of which adversely affects the public health, safety and general welfare.
- (b) 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 hazard areas by uses vulnerable to floods or hazardous to other lands which are inadequately elevated, floodproofed, or otherwise unprotected from flood damages.

Sec. 5-4-153. - Statement of purpose.

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

- (1) Restrict or prohibit uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;
- (2) Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- (3) Control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of floodwaters; and
- (4) Regulate developments which may increase erosion or flood damage; and, regulate the construction of structures which will unnaturally divert floodwaters which may increase flood hazards to other lands.

Sec. 5-4-154. - Objectives.

The objectives of this article are:

- (1) To protect human life and health;
- (2) To minimize expenditure of public money for costly flood control projects;
- (3) To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- (4) To minimize prolonged business interruptions;
- (5) To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in floodplains;
- (6) To help maintain a stable tax base by providing for the sound use and development of floodprone areas in such a manner as to minimize future flood blight areas;

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- (7) To encourage notification to potential real property buyers that a property is located in a special flood hazard area.

Sec. 5-4-155. - Definitions.

The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

*Appeal* means a request for a review of the Building Official's interpretation of any provisions of this chapter or a request for a variance.

*Area of special flood hazard* means the land in the floodplain within a community subject to a one percent (1%) or greater chance of flooding in any given year.

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

*Base flood elevation* means the water surface elevations of the base flood as determined by the Federal Insurance Administrator of the National Flood Insurance Program ([NFIP](#)).

*Basement* means any area of the building having its floor subgrade (below ground level) on all sides.

*Building* means any structure built for support, shelter, or enclosure for any occupancy or storage.

*Coastal high hazard area* means an area of special flood hazard extending from offshore to the inland limit of a primary frontal dune along an open coast and any other area subject to high velocity wave action from storms or seismic sources.

*Development* means any manmade change to improved or unimproved real estate, including, but not limited to, building or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations.

*Expansion to an existing manufactured home park or manufactured home subdivision* means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, either final site grading or pouring of concrete pads, or the construction of streets). Any expansion is considered new construction.

*Existing Construction* means, for the purposes of determining rates, structures for which the start of construction commenced before January 1, 1975.

*Fair market value of a structure* means:

- (i) The appraised value of the structure prior to the start of the initial repair or improvement; or
- (ii) In the case of damage, the appraised value of the structure prior to the damage occurring.

*Flood or flooding* means a general and temporary condition of partial or complete inundation of normally dry land areas from:

- a. The overflow of inland or tidal waters;
- b. The unusual and rapid accumulation of runoff of surface waters from any source.

*Flood Hazard Boundary Map (FHBM)* means an official map of a community, issued by the Federal Emergency Management Agency ([FEMA](#)), where the boundaries of the areas of special flood hazard have been defined as Zone A.

*Flood Insurance Rate Map (FIRM)* means an official map of a community, on which the Federal Emergency Management Agency ([FEMA](#)) has delineated both the special flood hazard areas and the risk premium zones applicable to the community.

*Flood Insurance Study* means the official report provided by the Federal Emergency Management Agency ([FEMA](#)). The report contains flood profiles, as well as the Flood Boundary-Floodway Map and the water surface elevation of the base flood.

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*Freeboard* means a factor of safety usually expressed in feet above a flood level for purposes of flood plain management. "Freeboard" tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, bridge openings, and the hydrological effect of urbanization of the watershed.

*Functionally dependent use* means a use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term "functionally dependent use" includes only docking or port facilities necessary for the loading and unloading of cargo or passengers, shipbuilding and ship repair facilities. The term "functionally dependent use" does not include long-term storage, manufacture, sales, or service facilities.

*Highest adjacent grade* means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

*Historic Structure* means any structure that is: (a) listed individually in the National Register of Historic Places (a listing maintained by the U.S. Department of the Interior (DOI)) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register; (b) certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district; (c) individually listed on a State inventory of historic places; (d) individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified (1) by an approved State program as determined by the Secretary of Interior, or (2) directly by the Secretary of Interior in states without approved programs. Some structures or districts listed on the State or local inventories MAY NOT be "Historic" as cited above, but have been included on the inventories because it was believed that the structures or districts have the potential for meeting the "Historic" structure criteria of the DOI. In order for these structures to meet NFIP historic structure criteria, it must be demonstrated and evidenced that the South Carolina Department of Archives and History has individually determined that the structure or district meets DOI historic structure criteria.

*Lowest floor* means the lowest floor of the lowest enclosed area, including basement. Any unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area, is not considered a building's lowest floor provided that such enclosure is not built so as to render the structure in violation of other provisions of this article.

*Mean sea level* means the average height of the sea for all stages of the tide. It is used as a reference for establishing various elevations within the floodplain. For purposes of this article, the term is synonymous with the National Geodetic Vertical Datum (NGVD) of 1929, North American Vertical Datum (NAVD 88) of 1988, or other datum, to which the base flood elevations shown on a community's Flood Insurance Rate Maps (FIRM) are shown.

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*Manufactured home* means a structure, transportable in one (1) 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. It does not include recreational vehicles or travel trailers.

*National Geodetic Vertical Datum (NGVD), as corrected in 1929, means elevation reference points set by National Geodetic Survey based on mean sea level.*

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North American Vertical Datum of 1988 (NAVD 88), means a vertical control used as the reference datum on new Flood Insurance Rate Maps.

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*New construction* means structures for which the start of construction commenced on or after the effective date of the ordinance from which this article is derived.

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*New manufactured home park or manufactured home subdivision* means a parcel or contiguous parcels of land divided into two (2) or more manufactured home lots for rent or sale for which the construction of facilities for servicing the lot on which the manufactured home is to be affixed (including, at a minimum, the installation of utilities, either final site grading or the pouring of concrete pads, and the

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construction of streets) is completed on or after the effective date of the ordinance from which this article is derived.

*Primary Frontal Dune* means a continuous or nearly continuous mound or ridge of sand with relatively steep seaward and landward slopes immediately landward and subject to erosion and overtopping from high tides and waves during coastal storms. The inland limit of the primary frontal dune occurs at the point where there is a distinct change from a relatively steep slope to a relatively mild slope.

*Recreational vehicle* means a vehicle which is:

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

*Sand dunes* means naturally occurring or manmade accumulations of sand in ridges or mounds landward of the active beach.

*Start of construction, for other than new construction and substantial improvements under the Coastal Barrier Resources Act, includes substantial improvement, and* means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, or improvement was within one hundred eighty (180) days of the permit date. The actual start means the first placement of permanent construction of a structure on a site, such as the pouring of slabs or footings, installation of piles, 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 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 building. For substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor or other structural part of a building, whether or not that alteration affects the external dimension of the building.

*Structure* means a walled and roofed building that is principally above ground, a manufactured home or a gas or liquid storage tank.

*Substantial damage* means damage of any origin sustained by a structure whereby the cost of restoring the structure to its pre-damaged condition equals or exceeds fifty percent (50%) of the fair market value of the structure before the damage occurred.

*Substantial improvement* means any combination of repairs, reconstruction, alteration, additions or improvements to a structure occurring within ~~one (1) year, measured from the date of the start of construction of improvement~~ in which the ~~cumulative total~~ cost equals or exceeds fifty percent (50%) of the fair market value of the structure before the start of construction. The term "substantial improvement" does not, however, include either:

- (i) Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications identified by the Building Official which are the minimum necessary to ensure safe living conditions; or
- (ii) Any alteration of a structure listed on a National Register of Historic Places or a State Inventory of Historic Places, provided that the alteration will not preclude the structure's continued designation as a historic structure.

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*Variance* means a grant of relief to a property owner from the requirements of this article which permits construction in a manner otherwise prohibited by this article where specific enforcement would result in unnecessary hardship to the owner.

*Violation* means the failure of a structure or other development to be fully compliant with this article.

Sec. 5-4-156. - Areas in which this article applies.

This article applies to all property in the City identified as areas of special flood hazard by the Federal Emergency Management Agency (FEMA) in its Flood Insurance Study dated November 17, 2004 with accompanying maps and other supporting data.

Sec. 5-4-157. - Basis for establishing the areas of special flood hazard.

The special flood hazard areas identified by the Federal Emergency Management Agency (FEMA) in its Flood Insurance Rate Map (FIRM) and Flood Insurance Study dated November 17, 2004, with all attachments thereto, are hereby adopted by reference and made a part of this article as fully and completely as if set forth herein verbatim.

Sec. 5-4-158. - Establishment of building and/or zoning permit.

A building/zoning permit shall be required in conformance with the provisions of this article prior to the commencement of any development activities.

Sec. 5-4-159. - Compliance.

No structure or land shall hereafter be located, extended, converted, or structurally altered without full compliance with the terms of this article and other applicable regulations.

Sec. 5-4-160. - Abrogation and greater restrictions.

Where this article and any other provision of this Code conflict or overlap, whichever provision imposes the more stringent restrictions shall prevail. If two (2) or more flood zones or base flood elevations transect a structure, the structure shall conform to the most stringent zone and the highest base flood elevation.

Sec. 5-4-161. - Interpretation.

In the interpretation and application of this article, all provisions shall be:

- (1) Considered a minimum requirement;
- (2) Liberally construed in favor of the City Council; and
- (3) Deemed neither to limit nor repeal any other powers granted under state statutes.

Sec. 5-4-162. - Partial invalidity and severability.

In the event any section, subsection, sentence, clause or phrase contained in this article shall be declared or adjudicated to be invalid or unconstitutional by a court of competent jurisdiction, all the remaining provisions of this article shall be and remain in full force and effect.

Sec. 5-4-163. - 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 considerations. Larger floods can and will occur. Flood heights may be increased by manmade or natural causes. This article does not imply that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damage. This article shall not create liability on the part of the City or by any officer or employee thereof for any flood

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damage that results from reliance on or compliance with this article or any administrative decision made hereunder.

Sec. 5-4-164. - Penalties for violation.

Violation of the provisions of this article or failure to comply with any of its requirements, including violation of conditions and safeguards established in connection with grants of variance or special exceptions, shall constitute a misdemeanor. Any person who violates this article or fails to comply with any of its requirements shall, upon conviction thereof, be punished as provided in section 1-3-66, and in addition shall pay all costs and expenses involved in the case. Each day such violation continues shall be considered a separate offense. Nothing herein contained shall prevent the City from taking such other lawful action as is necessary to prevent, enjoin or remedy any violation.

Sec. 5-4-165. - Administration; designation of Building Official.

The Building Official is hereby appointed to administer and implement the provisions of this article.

Sec. 5-4-166. - Adoption of letter of map revision (LOMR).

All LOMRs that are issued in the areas identified in section 5-4-156 are hereby adopted.

Sec. 5-4-167. - Permit procedures and certification requirements.

- a) *Permit*: Application for a building/zoning permit shall be made to the Building Official on forms provided by him, prior to any development activities, and may include, but not be limited to, the following plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, fill, storage of materials; drainage facilities, and the location of the foregoing. Specifically, the following information is required:
- (1) Elevation in relation to mean sea level of the proposed lowest floor (including basement) of all structures.
  - (2) Elevation in relation to mean sea level to which any nonresidential structure will be floodproofed.
  - (3) A certificate from a registered professional engineer or architect that the nonresidential floodproofed structure meets the floodproofing criteria in section 5-4-171(b).
  - (4) Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.
- b) *Certifications*:
- (1) During Construction - A floor elevation or floodproofing certification is required after the lowest floor is completed, or in instances where the structure is subject to the regulations applicable to coastal high hazard areas, after placement of the horizontal structural members of the lowest floor. Within twenty-one (21) calendar days of establishment of the lowest floor elevation, or floodproofing by whatever construction means, or upon placement of the horizontal structural members of the lowest floor, whichever is applicable, it shall be the duty of the permit holder to submit to the Building Official a certification of the elevation of the lowest floor, floodproofed elevation, or the elevation of the lowest habitable floor, whichever is applicable, as built, in relation to the 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 (21) calendar day period and prior to submission of the certification shall be at the permit holder's risk. The Building Official shall review the floor elevation survey date 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

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to make said corrections required hereby may result in the issuance of a stop work order for the project from the Building Official.

- (2) As-built Certification - Upon completion of the development a registered professional engineer, land surveyor or architect, in accordance with SC law, shall certify according to the requirements section that the development is built in accordance with the submitted plans and previous pre-development certifications.

Sec. 5-4-168. - Duties and responsibilities of the Building Official.

Duties of the Building Official shall include, but not be limited to, the following:

- (1) Review all building and zoning permits to ensure compliance with this article.
- (2) Advise permittees that additional Federal or State or City permits may be required, and, if specific Federal or State or City permits are known to the Building Official, require that copies of such be provided and maintained on file with the building/zoning permit.
- (3) Notify adjacent communities and the State Coordinator, Flood Mitigation Program, S.C. Land, Water and Conservation Division of the South Carolina Department of Natural Resources prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency ([FEMA](#)).
- (4) Ensure that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished.
- (5) Verify and record the actual elevation (in relation to mean seal level) of the lowest floor (including basement) of all new or substantially improved structures, in accordance with section 5-4-167(b).
- (6) Verify and record the actual elevation, in relation to mean sea level, to which the new or substantially improved structures have been floodproofed, in accordance with section 5-4-171(b).
- (7) In coastal high hazard areas, certification shall be obtained from a registered professional engineer or architect that the structure is securely anchored to adequately anchored pilings or columns in order to withstand the effects of wind and water loads acting simultaneously on the building.
- (8) In coastal high hazard areas, the Building Official shall review plans for adequacy of breakaway walls in accordance with section 5-4-171(e).
- (9) When floodproofing is utilized for a particular structure, require certification from a registered professional engineer or architect.
- (10) 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.
- (11) When base flood elevation data has not been provided in accordance with section 5-4-157, then the Building Official shall either:
  - (a) Obtain, review, and utilize any base flood elevation data available from a federal, state or other source, in order to administer the provisions of sections 5-4-170 and 5-4-171; or
  - (b) Require the applicant to obtain and reasonably utilize any base flood elevation data available from a federal, state or other source, and to determine the base flood elevation in accordance with accepted hydrologic and hydraulic engineering practices.
- (12) Before a certificate of occupancy is issued for a structure, inspect the premises to ensure that the requirements of this article have been met.
- (13) All records pertaining to the provisions of this article shall be maintained in the Office of the City Clerk and shall be made available for public inspection.

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Sec. 5-4-169. - Variance procedures.

- (a) The City's Board of Zoning Appeals shall hear and decide appeals and requests for variances hereunder.
- (b) The Board of Zoning Appeals shall hear and decide appeals when it is alleged that there is an error in any requirements, decisions, or determinations made by the Building Official in the enforcement or administration of this article.
- (c) Any person aggrieved by the decision of the Board may appeal such decision to a court of competent jurisdiction as provided by law.
- (d) Notwithstanding any other provision in this article to the contrary, variances may be issued for repair or rehabilitation of historic structures listed on the National Register of Historic Places or the State Inventory of Historic Places upon a finding by the Board that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.
- (e) In considering appeals or request for variances, the Board shall consider all technical evaluations, all relevant factors, all standards specified in other sections of this article and:
  - (1) The danger that materials may be swept onto other lands to the injury of others;
  - (2) The danger to life and property due to flooding or erosion damage;
  - (3) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
  - (4) The importance to the community of the services provided by the proposed facility; (5) The necessity to the facility of a waterfront location, where applicable;
  - (6) The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
  - (7) The compatibility of the proposed use with existing and anticipated development;
  - (8) The relationship of the proposed use to the comprehensive plan and flood plan management program for that area;
  - (9) The safety of access to the property during floods for emergency and nonemergency vehicles;
  - (10) The expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site; and
  - (11) 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.
- (f) The Board may attach such conditions to the granting of a variance hereunder as it deems necessary to further the purposes of this article.
- (g) Variances shall not be issued within any designated regulatory floodway if any increase in flood levels during the base flood discharge would result.
- (h) Requirements for variances.
  - (1) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
  - (2) Variances shall only be issued upon:
    - (i) A showing of good and sufficient cause;

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- (ii) A determination that failure to grant the variance would result in exceptional hardship to the applicant; 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 nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.
- (3) Any applicant to whom a variance is granted shall be given written notice by the Board that the issuance of a variance to construct a structure below the base flood level will result in substantially increased premium rates for the flood insurance as specified by the Federal law.
- (4) The City Clerk shall maintain the records of all appeal actions and report any variances to the Federal Emergency Management Agency ([FEMA](#)) as required by law.

Sec. 5-4-170. - General standards.

In all areas of the City the following provisions are required:

- (a) All new construction and substantial improvements shall be anchored to prevent flotation, collapse or 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 damage.
- (d) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.
- (e) 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 floodwaters.
- (f) On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.
- (g) Any alteration, repair, reconstruction, or improvements to ~~an existing structure which has the lowest floor, including basement, elevated to the base flood elevation or 14 feet NGVD (13 feet NAVD 88), whichever is higher, shall meet the requirements of new construction as contained in sections 5-4-171(a) and (c) of this article.~~
- (h) ~~Any alteration, repair, reconstruction, or improvements to an existing structure which has the lowest floor, including basement, below the base flood elevation or 14 feet NGVD (13 feet NAVD 88), whichever is higher, shall meet the requirements contained in sections 5-4-171(b) and (d) of this article, provided that no new floor elevation shall be lower than the existing floor elevation.~~
- (i) 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 flooding.
- (j) Public utilities and facilities are constructed so as to minimize flood damage and provide adequate drainage.

Sec. 5-4-171. - Specific standards.

In all areas of the City where base flood elevation data has been provided as set forth in section 5-4-157, or section 5-4-168(14), the following provisions are required:

- (a) ~~Residential new construction.~~ New construction, ~~substantial improvement or the repair of substantial damage~~ of any residential structure shall have the lowest floor, including basement,

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elevated no lower than **the base flood elevation or 14 feet NGVD (13 feet NAVD 88), whichever is higher**. Where permitted, solid foundation perimeter walls used to elevate a structure shall have openings sufficient to facilitate the unimpeded movements of floodwater. The elevation of the lowest floor shall be documented and provided to the Building Official using an elevation certificate in accordance with section 5-4-167(b).

**(b) Residential substantial improvement or the repair of substantial damage. Substantial improvement or the repair of substantial damage of any residential structure shall have the lowest floor, including basement, elevated no lower than the base flood elevation. Where permitted, solid foundation perimeter walls used to elevate a structure shall have openings sufficient to facilitate the unimpeded movements of floodwater. The elevation of the lowest floor shall be documented and provided to the Building Official using an elevation certificate in accordance with section 5-4-167(b).**

**(c) Nonresidential new construction.** New construction, ~~substantial improvement or the repair of substantial damage~~ of any commercial, industrial, or nonresidential structure shall have the lowest floor, including basement, elevated no lower than the level of **the base flood elevation or 14 feet NGVD (13 feet NAVD 88), whichever is higher**. Structures may be floodproofed in lieu of elevation, provided that all areas of the structure below the required 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. A registered professional engineer or architect shall document and certify to the Building Official that the standards of this subsection are satisfied, using a certificate in accordance with section 5-4-167(b).

**(d) Nonresidential substantial improvement or the repair of substantial damage. Substantial improvement or the repair of substantial damage of any commercial, industrial, or nonresidential structure shall have the lowest floor, including basement, elevated no lower than the level of the base flood elevation. Structures located in A-zones may be floodproofed in lieu of elevation, provided that all areas of the structure below the required 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. A registered professional engineer or architect shall document and certify to the Building Official that the standards of this subsection are satisfied, using a certificate in accordance with section 5-4-167(b).**

**(e) Enclosed areas below the base flood elevation, or 14 feet NGVD (13 feet NAVD 88), whichever is higher.** New construction and substantial improvements of elevated buildings that include fully enclosed areas formed by foundation and other exterior walls below the base flood elevation that are usable solely for the parking of vehicles, building access, or storage shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for complying with this requirement must either be certified by a professional engineer or architect or meet the following minimum criteria:

1. A minimum of two (2) openings having a total net area of not less than one (1) square inch per square foot of enclosed area subject to flooding shall be provided. For the purpose of compliance with this article, windows are not included.
2. The bottom of all opening shall be no higher than one foot (1') above grade.
3. Openings may be equipped with screens, louvers, valves or other coverings or devices, provided they permit the unimpeded entry and exit of floodwaters.
4. The interior portion of such enclosed area shall not be partitioned or finished into separate rooms.

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5. Only the portions of openings that are below the base flood elevation (BFE) can be counted towards the required net open area.
6. Fill placed around foundation walls must be graded so that the grade inside the enclosed area is equal to or higher than the adjacent grade outside the building on at least one side of the building.

(i) *Temporary structure.* No temporary structures shall be placed in a floodway or coastal high hazard area, or in any area of special flood hazard within the corporate limits of the City unless a permit is obtained from the Zoning Administrator. No such permit shall be issued unless the latest FEMA guidelines regarding such structures are met.

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(g) *Coastal high hazard areas (V zones).* Located within the areas of special flood hazard established in section 5-4-157 are areas designated as coastal high hazard areas. These areas have special flood hazards associated with wave-wash; therefore, the following provisions shall apply:

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1. All new construction and substantial improvement shall be located landward of the reach of the mean high tide, first line of stable natural vegetation, and comply with all applicable Department of Health and Environmental Control (DHEC) Ocean and Coastal Resource Management (OCRM) setback requirements.
2. All new construction and substantial improvement shall be elevated so that the bottom of the lowest horizontal structural member supporting the lowest floor (excluding pilings or columns) is located no lower than the base flood elevation level or 14 feet NGVD (13 feet NAVD 88), whichever is higher, with all space below the lowest supporting member open so as not to impede the flow of water. Open lattice work or decorative screening may be permitted for aesthetic purposes only and must be designed to wash away in the event of flood and wave action and in accordance with subsection (e) 9 of this section.

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3. All substantial improvements and repairs to substantial damage of any structure shall be elevated so that the bottom of the lowest horizontal structural member supporting the lowest floor (excluding pilings or columns) is located no lower than the base flood elevation with all space below the lowest supporting member open so as not to impede the flow of water. Open lattice work or decorative screening may be permitted for aesthetic purposes only and must be designed to wash away in the event of flood and wave action and in accordance with subsection (e) 9 of this section.

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4. All new construction and substantial improvement shall be securely anchored on pilings or columns.

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5. All pile and column foundations and structures attached thereto shall be anchored to resist flotation, collapse, and lateral movement due to the effect of wind and water loads acting simultaneously on all building components. Water loading values shall equal or exceed the base flood. Wind loading values shall be in accordance with the latest edition of the building code or One- and Two-Family Dwelling Code adopted by the City.

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6. Compliance with provisions contained in subsection (e) 2, 3 and 5 of this section shall be certified by a licensed professional engineer or architect.

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7. There shall be no fill used as structural support.

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8. There shall be no alteration of sand dunes, which would increase potential flood damage.

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9. Lattice work or decorative screening shall be allowed below the base flood elevation provided they are not part of the structural support of the building and are designed so as to break away, under base flood or lesser conditions, without causing collapse, displacement

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or other structural damage to the elevated portion of the building or supporting foundation system and provided the following design specifications are met:

- a. No solid walls are allowed; and
- b. Materials shall consist of open wooden lattice or insect screening.

~~10~~ Space enclosed by lattice or screening shall not be used for human habitation.

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~~11~~ Prior to construction, plans for any structure that will have lattice work or decorative screening must be submitted to the Building Official for approval.

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~~12~~ Any alteration, repair, reconstruction or improvement to a structure shall not enclose the space below the lowest floor except for lattice work or decorative screening, as provided for in subsection ~~(e)~~ and ~~11~~ of this section.

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(f) *Recreational vehicles*. Recreational vehicles placed on lots shall be fully licensed and ready for highway use. A recreational vehicle is ready for highway use if it is on wheels or jacking system, attached to the site only by quick-disconnect-type utilities and security devices, and has no permanently attached additions.

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