

# Exhibit D2. FLOOD DAMAGE PREVENTION ORDINANCE

STATE OF SOUTH CAROLINA)  
COUNTY OF HORRY)  
TOWN OF ATLANTIC BEACH)

Town of Atlantic Beach  
Ordinance No. 9-2021  
First Reading: 12.13.2021  
Second Reading: 12.21.2021

**AN ORDINANCE TO AMEND EXHIBIT D2, THE FLOOD DAMAGE PREVENTION ORDINANCE IN ORDER TO ADOPT THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S LATEST FLOOD INSURANCE STUDY AND ACCOMPANYING FLOOD INSURANCE RATE MAPS FOR THE TOWN OF ATLANTIC BEACH, SOUTH CAROLINA**

**WHEREAS**, the Town of Atlantic Beach recognizes the importance of protecting life and property from the perils of flooding; and

**WHEREAS**, the Town of Atlantic Beach is a member of the National Flood Insurance program and has adopted a flood damage prevention ordinance; and

**WHEREAS**, the Town of Atlantic has determined that it is in the public interest to re –enact the existing ordinance with certain updates and amendments; and,

**WHEREAS**, the adoption of the latest version of the NFIP's Flood Insurance Rate Maps must be completed prior to December 15, 2021 and requires edits as included herein;

**NOW, THEREFORE**, be it enacted and ordained by the governing body of the Town of Atlantic Beach, in Council duly assembled, that the Town of Atlantic Beach Code is amended by adding:

## ARTICLE I. GENERAL PROVISIONS

### SECTION 1 Statutory Authorization

The Legislature of the State of South Carolina has in SC Code of Laws, Title 5 and Title 6, and amendments thereto, delegated the responsibility to local governmental units to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry. Therefore, the Town Council of the Town of Atlantic Beach, South Carolina, does ordain as follows:

### SECTION 2 Findings of Fact

The Special Flood Hazard Areas of the Town of Atlantic Beach are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare of residents. Furthermore, 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, flood –proofed, or otherwise unprotected from flood damages.

### SECTION 3 Statement Of Purpose & Objectives

It is the purpose of this ordinance to protect human life and health, minimize property damage, and encourage appropriate construction practices to minimize damage to public facilities and utilities such as

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water and gas mains, electric, telephone, and sewer lines, and streets and bridges located in the floodplain by requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction. Uses of the floodplain which are dangerous to health, safety, and property due to water or erosion hazards, or which increase flood heights, velocities, or erosion are restricted or prohibited. These provisions attempt to control the alteration of natural floodplains, stream channels, and natural protective barriers which are critical in the accommodation of flood waters, and control filling, grading, dredging, and other development which may increase flood damage or erosion. Additionally, the ordinance regulates the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands.

## **SECTION 4 Lands to Which this Ordinance Applies**

This ordinance shall apply to all areas of special flood hazard within the Town of Atlantic Beach as identified by the Federal Emergency Management Agency (FEMA) in its Flood Insurance Study, dated December 16, 2021, with accompanying maps and other supporting data that are hereby adopted by reference and declared to be a part of this ordinance.

Upon annexation any special flood hazard areas identified by the Federal Emergency Management Agency (FEMA) in its Flood Insurance Study for the unincorporated areas of Horry County, with accompanying maps and other data are adopted by reference and declared part of this ordinance.

## **SECTION 5 Establishment of Development Permit**

A development permit in conformance with the provisions of this ordinance shall be required prior to the commencement of any developmental activities.

## **SECTION 6 Compliance**

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

## **SECTION 7 Interpretation**

In the interpretation and application of this ordinance, all provisions shall be considered as minimum requirements, liberally construed in favor of the governing body, and deemed neither to limit nor repeal any other powers granted under State law. This ordinance is not intended to repeal, abrogate, or impair any existing easements, covenants, or overlap. Whichever imposes the more stringent restrictions, shall prevail.

## **SECTION 8 Partial Invalidity and Severability**

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

## **SECTION 9 Warning and Disclaimer of Liability**

The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering consideration. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This ordinance 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 damages. This ordinance shall not create liability on the part of the Town of Atlantic Beach or by

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any officer or employee thereof for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made hereunder.

## SECTION 10 Penalties for Violation

Violation of the provisions of this ordinance or failure to comply with any of its requirements, including conditions and safeguards established in connection with grants of variance or special exceptions, shall constitute a misdemeanor. Any person who violates this ordinance or fails to comply with any of its requirements shall, upon conviction thereof, be fined not more than \$500.00 or imprisoned for not more than 30 days, or both, and in addition, shall pay all cost and expenses involved in the case. Each day such violation continues shall be considered a separate offense. Nothing herein contained shall prevent the Town of Atlantic Beach from taking such other lawful actions as is necessary to prevent or remedy any violation.

## SECTIONS 11 through 19 Reserved

# ARTICLE II. DEFINITIONS

## SECTION 20 General

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

1. **Accessory Structure (Appurtenant Structure)** – structures located on the same parcel of property as the principal structure and the use of which is incidental to the use of the principal structure. Accessory structures should constitute a minimal investment, may not be used for human habitation, and be designed to have a minimal flood damage potential. Garages, carports, and storage sheds are common urban accessory structures while pole barns and hay sheds qualify as accessory structures on farms.
2. **Addition (to an Existing Building)** – an extension or increase in the floor area or height of a building or structure. Additions to existing buildings shall comply with the requirements for new construction regardless as to whether the addition is a substantial improvement or not. Where a firewall or load – bearing wall exists between the addition and the existing building, the addition(s) shall be considered a separate building and must comply with the standards for new construction.
3. **Agricultural Structure** – a structure used solely for agricultural purposes in which the use is exclusively in connection with the production, harvesting, storage, drying, or raising of agricultural commodities, including the raising of livestock. Agricultural structures are not exempt from the provisions of this ordinance.
4. **Appeal** – a request for a review of the Planning Administrator’s interpretation of any provision of this ordinance or a request for a variance.
5. **Area of Shallow Flooding** – a designated AO or VO Zone on a community’s Flood Insurance Rate Map (FIRM) with base flood depths from one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable and indeterminate, and where velocity flows may be evident.
6. **Area of Special Flood Hazard** – the land in the floodplain within a community subject to a one (1) percent or greater chance of being equaled or exceeded in any given year.

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7. **Base Flood** – the flood having a one percent chance of being equaled or exceeded in any given year.
8. **Basement** – means any enclosed area of a building that is below grade on all sides.
9. **Building** – see “Structure.”
10. **Coastal High Hazard Area** – an area of special flood hazard extending from offshore to the inland limit of the primary frontal dune along an open coast and any other area subject to velocity wave action from storms or seismic sources.
11. **Critical Development** – development critical to the community’s public health and safety, essential to the orderly functioning of a community, stores or produces highly volatile, toxic, or water –reactive materials, or houses occupants that may be insufficiently mobile to avoid loss of life or injury. Examples of critical development include jails, hospitals, schools, fire stations, nursing homes, wastewater treatment facilities, water plants, and gas/oil/propane storage facilities.
12. **Development** – any man –made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavating, drilling operations, or storage of materials or equipment.
13. **Elevated Building** – a non –basement building built to have the lowest floor elevated above the ground level by means of solid foundation perimeter walls, pilings, columns piers, or shear walls parallel to the flow of water.
14. **Executive Order 11988 (Floodplain Management)** – Issued by President Carter in 1977, this order requires that no federally assisted activities be conducted in or have the potential to affect identified special flood hazard areas, unless there is no practicable alternative.
15. **Existing Construction** – means structures for which the start of construction commenced before the effective date of FIRM, May 15, 1978 in order to determine rates.
16. **Existing Manufactured Home Park or Subdivision** – a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete slabs) is completed before the effective date of the floodplain management regulations adopted by a community (before the effective date of the first floodplain management code, ordinance, or standard based upon specific technical base flood elevation data which established the area of special flood hazard) or May 15, 1978.
17. **Expansion to an Existing Manufactured Home Park or Subdivision** – 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, the construction of streets, and either final site grading or the pouring of concrete slabs).
18. **Flood Hazard Boundary Map (FHBM)** – an official map of a community, issued by the Federal Emergency Management Agency, where the boundaries of the areas of special flood hazard have been defined as Zone A.
19. **Flood Insurance Rate Map (FIRM)** – an official map of a community, on which the Federal Emergency Management Agency has delineated both the areas of special flood hazard and the risk premium zones applicable to the community.

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20. **Flood Insurance Study** – the official report provided by the Federal Emergency Management Agency which contains flood profiles, as well as the Flood Boundary Floodway Map and the water surface elevation of the base flood.
21. **Flood –Resistant Material** – any building material capable of withstanding direct and prolonged contact (minimum 72 hours) with floodwaters without sustaining damage-that requires more than low –cost cosmetic repair. Any material that is water –soluble or is not resistant to alkali or acid in water, including normal adhesives for above –grade use, is not flood –resistant. Pressure –treated lumber or naturally decay –resistant lumber is acceptable flooring material. Sheet –type flooring coverings that restrict evaporation from below and materials that are impervious, but dimensionally unstable, are not acceptable. Materials that absorb or retain water excessively after submergence are not flood –resistant. Please refer to Technical Bulletin 2 *Flood Damage –Resistant Materials*, dated 8/08, and available from the Federal Emergency Management Agency. Class 4 and 5 materials, referenced therein, are acceptable flood –resistant materials.
22. **Floodway** – the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base of the flood without cumulatively increasing the water surface elevation by more than one (1) foot.
23. **Freeboard** – a factor of safety usually expressed in feet above a flood level for purpose 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.
24. **Functionally Dependent Use** – a use which cannot be utilized for its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, ship building, and ship repair facilities but does not include longterm storage or related manufacturing facilities.
25. **Highest Adjacent Grade** – the highest natural elevation of the ground surface, prior to construction, next to the proposed walls of the structure.
26. **Historic Structure** – 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.
27. **Increased Cost of Compliance (ICC)** – applies to all new and renewed flood insurance policies effective on and after June 1, 1997. The NFIP shall enable the purchase of insurance to cover the cost of compliance with land use and control measures established under Section 1316 of the National Flood Insurance Act of 1968. It provides coverage for the payment of a claim to help pay for the cost

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to comply with State or community floodplain management laws or ordinances after a flood event in which a building has been declared substantially or repetitively damaged.

28. **Limited Storage** – an area used for storage and intended to be limited to incidental items which can withstand exposure to the elements and have low flood damage potential. Such an area must be of flood resistant or breakaway material, void of utilities except for essential lighting and cannot be temperature controlled. If the area is located below the base flood elevation in an A, AE, A1 –A30, V, VE, or VI –V30 zone, it must meet the requirements of Section 41 of this ordinance.
29. **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 an enclosure is not built so as to render the structure in violation of the applicable non –elevation design requirements of this ordinance.
30. **Manufactured Home** – 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. The term “manufactured home” does not include a “recreational vehicle.”
31. **Manufactured Home Park or Subdivision** – a parcel (or contiguous parcels) of land divided into two (2) or more manufactured home lots for rent or sale.
32. **Mean Sea Level** – means, for the purpose of this ordinance, the National Geodetic Vertical Datum (NGVD) of 1929, North American Vertical Datum (NAVD) of 1988, or other datum, to which the base flood elevations shown on a community's Flood Insurance Rate Maps (FIRM) are shown.
33. **National Geodetic Vertical Datum (NGVD) of 1929**– as corrected in 1929, elevation reference points set by National Geodetic Survey based on mean sea level.
34. **North American Vertical Datum (NAVD) of 1988** – vertical control, as corrected in 1988, used as the reference datum on Flood Insurance Rate Maps.
35. **New Construction** – structure for which the “start of construction” commenced on or after (the effective date of the first floodplain management code, ordinance, or standard based upon specific technical base flood elevation data which establishes the area of special flood hazard.) or May 15, 1978. The term also includes any subsequent improvements to such structure.
36. **New Manufactured Home Park or Subdivision** – a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete slabs) is completed on or after October 6, 2003, the effective date of floodplain management regulations adopted by a community.
37. **Primary Frontal Dune** – a continuous or nearly continuous mound or ridge of sand with relatively steep seaward and landward slopes 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.
38. **Recreational Vehicle** – a vehicle which is: (a) built on a single chassis; (b) 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.

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39. **Repetitive Loss** – a building covered by flood insurance that has incurred flood –related damages on two (2) occasions during a ten (10) year period ending on the date of the event for which a second claim is made, in which the cost of repairing the flood damage, on the average, equaled or exceeded 25 percent of the market value of the building at the time of each such flood event.
40. **Section 1316 of the National Flood Insurance Act of 1968** – the act provides that no new flood insurance shall be provided for any property found by the Federal Emergency Management Agency to have been declared by a state or local authority to be in violation of state or local ordinances.
41. **Stable Natural Vegetation** – the first place on the oceanfront where plants such as sea oats hold sand in place.
42. **Start of Construction** – for other than new construction or substantial improvements under the Coastal Barrier Resources Act (P.L. 97 –348), includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, or improvement was within 180 days of the permit date. The actual start means the first placement of permanent construction of a structure (including a manufactured home) 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 and/or walkways; nor does it include excavation for footings, piers or foundations, or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.
43. **Structure** – a walled and roofed building or manufactured home, including a gas or liquid storage tank that is principally above ground.
44. **Substantial Damage** – damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred. Such repairs may be undertaken successively and their costs counted cumulatively. Please refer to the definition of "substantial improvement."
45. **Substantial Improvement** – any repair, reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the start of construction of the improvement. This term includes structures that have incurred repetitive loss or substantial damage, regardless of the actual repair work performed. The term does not, however, include:
  - a. Improvement projects to a structure in order to correct existing violations of State or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions; or
  - b. Any alteration of a historic structure, provided that the alteration will not preclude the structure's continued designation as a historic structure.
  - c. Permits shall be cumulative for a period of five (5) years. If the improvement project is conducted in phases, the total of all costs associated with each phase, beginning with the issuance of the first permit, shall be utilized to determine whether substantial improvement will occur.

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46. **Substantially Improved Existing Manufactured Home Parks or Subdivision** – where the repair, reconstruction, rehabilitation or improvement of the streets, utilities, and slabs equals or exceeds 50 percent of the value of the streets, utilities, and slabs before the repair, reconstruction or improvement commenced.
47. **Variance** – means a grant of relief from the terms of this ordinance.
48. **Violation** – the failure of a structure or other development to be fully compliant with these regulations.

### SECTIONS 21 through 29 Reserved

## ARTICLE III. ADMINISTRATION

### SECTION 30 Designation of Flood Plain Management, Code Enforcement, and Building Inspectors

The Town Manager is hereby appointed to administer and implement the provisions of this ordinance. Under the current administrative structure as approved by the Town Council there are five (5) departments including the Planning Department. The Town Manager's designee, the Planning Administrator, who is responsible for the Planning Department, shall be responsible for flood plain management, code enforcement and building inspection. Building inspectors shall be contract personnel.

### SECTION 31 Adoption of Letter of Map Revisions (LOMR)

All LOMRs that are issued in the areas identified in Section 3 of this ordinance are hereby adopted.

### SECTION 32 Development Permit and Certification Requirements

- A. **Development Permit** – Application for a development permit shall be made to the Planning Administrator on forms furnished by him or her 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, the location of fill materials, storage of materials or equipment, drainage facilities, and the location of the foregoing. Specifically, the following information is required:
  1. A plot plan that shows the 100 –year floodplain contour or a statement that the entire lot is within the floodplain must be provided by the development permit applicant when the lot is within or appears to be within the floodplain as mapped by the Federal Emergency Management Agency or when the floodplain is identified pursuant to either the duties and responsibilities of the local floodplain administrator of Section 33 or the standards for subdivision proposals of Section 41L and the standards for streams without estimated base flood elevations and floodways of Section 42. The plot plan must be prepared by or under the direct supervision of a registered land surveyor or professional engineer and certified. The plot plan must show the floodway, if any, as identified by the Federal Emergency Management Agency or the floodway identified pursuant to either the duties or responsibilities of the local floodplain administrator of Section 33 or the standards for subdivision proposals of Section 41L and the standards for streams without estimated base flood elevations and floodways of Section 42.



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2. Where base flood elevation data is provided as set forth in Section 3 or the duties and responsibilities of the local floodplain administrator of Section 33, the application for a development permit within the flood hazard area shall show:
  - a. The elevation (in relation to mean sea level) of the lowest floor of all new and substantially improved structures; and,
  - b. If the structure will be floodproofed in accordance with the Non –Residential Construction requirements of Section 41B the elevation (in relation to mean sea level) to which the structure will be floodproofed.
3. Where base flood elevation data is not provided as set forth in Section 3 or the duties and responsibilities of the local floodplain administrator of Section 33, then the provisions in the standards for streams without estimated base flood elevations and floodways of Section 42 must be met.
4. Alteration of Watercourse – Where any watercourse will be altered or relocated as a result of proposed development, the application for a development permit shall include a description of the extent of watercourse alteration or relocation, an engineering study to demonstrate that the flood – carrying capacity of the altered or relocated watercourse is maintained and a map showing the location of the proposed watercourse alteration or relocation.

### B. Certifications

1. Floodproofing Certification – When a structure is floodproofed, the applicant shall provide certification from a registered, professional engineer or architect that the non –residential, floodproofed structure meets the floodproofing criteria in the non –residential construction requirements of Section 41B and Section 44B.
2. Certification During Construction – A lowest floor elevation or floodproofing certification is required after the lowest floor is completed. As soon as possible after completion of the lowest floor and before any further vertical construction commences, or floodproofing by whatever construction means, whichever is applicable, it shall be the duty of the permit holder to submit to the local floodplain 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 it. Any work done prior to submission of the certification shall be at the permit holder's risk. The local floodplain administrator shall review the floor elevation survey data submitted. The permit holder immediately, and prior to further progressive work being permitted to proceed, shall correct deficiencies detected by such review. 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.
3. V –Zone Certification – When a structure is located in Zones V, VE, or V1 –30, certification shall be provided from a registered professional engineer or architect, separate from submitted plans, that new construction and substantial improvement meets the criteria for the coastal high hazard areas outlined in Section 45.
4. As –built Certification – Upon completion of the development, a registered professional engineer, land surveyor or architect, in accordance with South Carolina law, shall certify according to the requirements of Section 32B that the development is built in accordance with the submitted plans and previous pre –development certifications.

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## SECTION 33 Duties and Responsibilities of the Planning Administrator

- A. **Permit Review** – Review all development permits to assure that the permit requirements of this ordinance have been satisfied.
- B. **Requirement of Federal and/or State Permits** – Review proposed development to assure that all necessary permits have been received from those governmental agencies from which approval is required by Federal or State law, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C 1334.
- C. **Watercourse Alterations** –
1. Notify adjacent communities and the South Carolina Department of Natural Resources, Land, Water and Conservation Division, State Coordinator for Flood Mitigation Program prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.
  2. In addition to the notifications required for watercourse alterations per Section 33C, written reports of maintenance records must be maintained to show that maintenance has been provided within the altered or relocated portion of said watercourse so that the flood –carrying capacity is maintained. This maintenance must consist of a comprehensive program of periodic inspections, and routine channel clearing and dredging, or other related functions. The assurance shall consist of a description of maintenance activities, frequency of performance, and the local official responsible for maintenance performance. Records shall be kept on file for FEMA inspection.
  3. If the proposed project will modify the configuration of the watercourse, floodway, or base flood elevation for which a detailed Flood Insurance Study has been developed, the applicant shall apply for and must receive approval for a Conditional Letter of Map Revision with the Federal Emergency Management Agency prior to the start of construction.
  4. Within sixty (60) days of completion of an alteration of a watercourse, referenced in the certification requirements of Section 32B, the applicant shall submit as –built certification by a registered professional engineer to the Federal Emergency Management Agency.
- D. **Floodway Encroachments** – Prevent encroachments within floodways unless the certification and flood hazard reduction provisions of Section 41E are met.
- E. **Adjoining Floodplains** – Cooperate with neighboring communities with respect to the management of adjoining floodplains and/or flood –related erosion areas in order to prevent aggravation of existing hazards.
- F. **Notifying Adjacent Communities** – Notify adjacent communities prior to permitting substantial commercial developments and large subdivisions to be undertaken in areas of special flood hazard and/or flood –related erosion hazards.
- G. **Certification Requirements** –
1. Obtain and review actual elevation (in relation to mean sea level) of the lowest floor of all new or substantially improved structures, in accordance with administrative procedures outlined in Section 32B or the coastal high hazard area requirements outlined in Section 45E.

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2. Obtain the actual elevation (in relation to mean sea level) to which the new or substantially improved structures have been floodproofed, in accordance with the floodproofing certification outlined in Section 32B.
  3. When floodproofing is utilized for a particular structure, obtain certifications from a registered professional engineer or architect in accordance with the non-residential construction requirements outlined in Section 41B.
  4. A registered professional engineer or architect shall certify that the design, specifications and plans for construction are in compliance with the provisions contained in the coastal high hazard area requirements outlined in Sections 45D through 45H of this ordinance.
- H. **Map Interpretation** – 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 ordinance.
- I. **Prevailing Authority** – Where a map boundary showing an area of special flood hazard and field elevations disagree, the base flood elevations for flood protection elevations (as found on an elevation profile, floodway data table, etc.) shall prevail. The correct information should be submitted to FEMA as per the map maintenance activity requirements outlined in Section 41G2.
- J. **Use of Best Available Data** – When base flood elevation data and floodway data has not been provided in accordance with Section 3, obtain, review, and reasonably utilize best available base flood elevation data and floodway data available from a federal, state, or other source, including data developed pursuant to the standards for subdivision proposals outlined in Section 41L in order to administer the provisions of this ordinance. Data from preliminary, draft, and final Flood Insurance Studies constitutes best available data from a federal, state, or other source. Data must be developed using hydraulic models meeting the minimum requirement of NFIP approved model. If an appeal is pending on the study in accordance with 44 CFR Ch. 1, Part 67.5 and 67.6, the data does not have to be used.
- K. **Special Flood Hazard Area/Topographic Boundaries Conflict** – When the exact location of boundaries of the area's special flood hazards conflict with the current, natural topography information at the site, site information takes precedence when the lowest adjacent grade is at or above the BFE. Additionally, the property owner may apply and be approved for a Letter of Map Amendment (LOMA) by FEMA. The local floodplain administrator in the permit file will then maintain a copy of the Letter of Map Amendment issued from FEMA.
- L. **On-Site Inspections** – Make on-site inspections of projects in accordance with the administrative procedures outlined in Section 34A.
- M. **Administrative Notices** – Serve notices of violations, issue stop-work orders, revoke permits and take corrective actions in accordance with the administrative procedures in Section 34.
- N. **Records Maintenance** – Maintain all records pertaining to the administration of this ordinance and make these records available for public inspection.
- O. **Annexations and Detachments** – Notify the South Carolina Department of Natural Resources, Land, Water and Conservation Division, State Coordinator for the National Flood Insurance Program within six (6) months, of any annexations or detachments that include special flood hazard areas.

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- P. **Federally Funded Development** – The President issued Executive Order 11988, Floodplain Management (E.O. 11988) in May of 1977 directing federal agencies to assert a leadership role in reducing flood losses and losses to environmental values served by floodplains. Proposed developments must go through an eight –step review process. Evidence of compliance with the executive order must be submitted as part of the permit review process.
- Q. **Substantial Damage Determination** – Perform an assessment of damage from any origin to the structure using FEMA’s Residential Substantial Damage Estimator (RSDE) software to determine if the damage equals or exceeds 50 percent of the market value of the structure before the damage occurred.
- R. **Substantial Improvement Determinations** – Perform an assessment of permit applications for improvements or repairs to be made to a building or structure that equals or exceeds 50 percent of the market value of the structure before the start of construction. Cost of work counted for determining if and when substantial improvement to a structure occurs shall be cumulative for a period of five (5) years. If the improvement project is conducted in phases, the total of all costs associated with each phase, beginning with the issuance of the first permit, shall be utilized to determine whether a substantial improvement will occur.

The market values shall be determined by one of the following methods:

1. The current assessed building value as determined by the county’s assessor’s office or the value of an appraisal performed by a licensed appraiser at the expense of the owner within the past six (6) months.
2. One (1) or more certified appraisals from a registered professional licensed appraiser in accordance with the laws of South Carolina. The appraisal shall indicate actual replacement value of the building or structure in its pre –improvement condition, less the cost of site improvements and depreciation for functionality and obsolescence.
3. Real Estate purchase contract within six (6) months prior to the date of the application for a permit.

### SECTION 34 Administrative Procedures

- A. **Inspections of Work in Progress** – As the work pursuant to a permit progresses, the local floodplain administrator shall make as many inspections of the work as may be necessary to ensure that the work is being done according to the provisions of the local ordinance and the terms of the permit. In exercising this power, the floodplain administrator has a right, upon presentation of proper credentials, to enter on any premises within the territorial jurisdiction at any reasonable hour for the purposes of inspection or other enforcement action.
- B. **Stop –Work Orders** – Whenever a building or part thereof is being constructed, reconstructed, altered, or repaired in violation of this ordinance, the floodplain administrator may order the work to be immediately stopped. The stop –work order shall be in writing and directed to the person doing the work. The stop –work order shall state the specific work to be stopped, the specific reasons for the stoppage, and the conditions under which the work may be resumed. Violation of a stop –work order constitutes a misdemeanor.
- C. **Revocation of Permits** – The local floodplain administrator may revoke and require the return of the development permit by notifying the permit holder in writing, stating the reason for the revocation. Permits shall be revoked for any substantial departure from the approved application, plans, or specifications; for refusal or failure to comply with the requirements of state or local laws; or for false

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statements or misrepresentations made in securing the permit. Any permit mistakenly issued in violation of an applicable state or local law may also be revoked.

- D. **Periodic Inspections** – The local floodplain administrator and each member of his or her inspections department shall have a right, upon presentation of proper credentials, to enter on any premises within the territorial jurisdiction of the department at any reasonable hour for the purposes of inspection or other enforcement action.
- E. **Violations to be Corrected** – When the local floodplain administrator finds violations of applicable state and local laws, it shall be his or her duty to notify the owner or occupant of the building of the violation. The owner or occupant shall immediately remedy each of the violations of law on the property in question.
- F. **Actions in Event of Failure to Take Corrective Action:** If the owner of a building or property shall fail to take prompt corrective action, the floodplain administrator shall give him or her written notice, by certified or registered mail to the last known address or by personal service, that:
1. The building or property is in violation of the Town of Atlantic Beach's Flood Damage Prevention Ordinance;
  2. A hearing will be held before the local floodplain administrator at a designated place and time, not later than ten (10) days after the date of the notice, at which time the owner shall be entitled to be heard in person or by counsel and to present arguments and evidence pertaining to the matter; and,
  3. Following the hearing, the local floodplain administrator may issue such order to alter, vacate, demolish the building, or remove fill as appears appropriate.
- G. **Order to Take Corrective Action:** If, upon a hearing held pursuant to the notice prescribed above, the floodplain administrator shall find that the building or development is in violation of the Flood Damage Prevention Ordinance, he or she shall make an order in writing to the owner, requiring the owner to remedy the violation within such period, not less than sixty (60) days, the floodplain administrator may prescribe. Provided that where the floodplain administrator finds that there is imminent danger to life or other property, he or she may order that corrective action be taken in such lesser period as may be feasible.
- H. **Appeal:** Any owner who has received an order to take corrective action may appeal from the order to the local elected governing body by giving notice of appeal in writing to the floodplain administrator and the clerk within ten (10) days following issuance of the final order. In the absence of an appeal, the order of the floodplain administrator shall be final. The local governing body shall hear an appeal within a reasonable time and may affirm, modify and affirm, or revoke the order.
- I. **Failure to Comply with Order:** If the owner of a building or property fails to comply with an order to take corrective action from which no appeal has been taken, or fails to comply with an order of the governing body following an appeal, he shall be guilty of a misdemeanor and shall be punished in the discretion of the court.
- J. **Denial of Flood Insurance under the NFIP:** If a structure is declared in violation of this ordinance, and after all other penalties are exhausted to achieve compliance with this ordinance, then the local floodplain administrator shall notify the Federal Emergency Management Agency (FEMA) to initiate Section 1316 of the National Flood Insurance Act of 1968 action against the structure upon the finding that the violator refuses to bring the violation into compliance with the ordinance. Once a violation has been remedied, the local floodplain administrator shall notify FEMA of the remedy and ask that the Section 1316 be rescinded.

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K. The following documents are incorporated by reference and may be used by the local floodplain administrator to provide further guidance and interpretation of this ordinance as found on FEMA's website at [www.fema.gov](http://www.fema.gov):

1. FEMA 55 Coastal Construction Manual
2. All FEMA Technical Bulletins
3. All FEMA Floodplain Management Bulletins
4. FEMA 348 Protecting Building Utilities from Flood Damage
5. FEMA 499 Home Builder's Guide to Coastal Construction Technical Fact Sheets

### SECTIONS 35 through 39 Reserved

## ARTICLE IV. PROVISIONS FOR FLOOD HAZARD REDUCTION

### SECTION 40 General Standards

Development may not occur in the Special Flood Hazard Area (SFHA) where alternative locations exist due to the inherent hazards and risks involved. Before a permit is issued, the applicant shall demonstrate that new structures cannot be located out of the SFHA and that encroachments onto the SFHA are minimized. In all areas of special flood hazard the following provisions are required:

- A. **Reasonably Safe from Flooding** – Review all permit applications to determine whether proposed building sites will be reasonably safe from flooding.
- B. **Anchoring** – All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.
- C. **Flood Resistant Materials and Equipment** – All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage in accordance with Technical Bulletin 2, *Flood Damage –Resistant Materials Requirements*, dated 8/08, and available from the Federal Emergency Management Agency (FEMA).
- D. **Minimize Flood Damage** – All new construction and substantial improvements shall be constructed by methods and practices that minimize flood damage.
- E. **Critical Development** – shall be elevated to the 500 year flood elevation or be elevated to the highest known historical flood elevation (where records are available), whichever is greater. If no data exists establishing the 500 year flood elevation or the highest known historical flood elevation, the applicant shall provide a hydrologic and hydraulic engineering analysis that generates 500 year flood elevation data.
- F. **Utilities** – Electrical, heating, ventilation, plumbing, air conditioning equipment (including ductwork), 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 the base flood plus three (3) feet.
- G. **Water Supply Systems** – All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.

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- H. **Sanitary Sewage Systems** – 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. On –site waste disposal systems shall be located and constructed to avoid impairment to or contamination from them during flooding.
- I. **Gas or Liquid Storage Tanks** – All gas or liquid storage tanks, either located above ground or buried, shall be anchored to prevent flotation and lateral movement resulting from hydrodynamic and hydrostatic loads.
- J. **Alteration, Repair, Reconstruction, or Improvements** – Any alteration, repair, reconstruction, or improvement to a structure that is in compliance with the provisions of this ordinance, shall meet the requirements of "new construction" as contained in this ordinance. This includes post –FIRM development and structures.
- K. **Non –Conforming Buildings or Uses** – Non –conforming 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 ordinance shall prevent the repair, reconstruction, or replacement of an existing building or structure located totally or partially within the floodway, as long as the bulk of the building or structure below base flood elevation in the floodway is not increased and that such repair, reconstruction, or replacement meets all of the other requirements of this ordinance.
- L. **Americans with Disabilities Act (ADA)** – A building must meet the specific standards for floodplain construction outlined in Section 41 as well as any applicable ADA requirements. The ADA is not justification for issuing a variance or otherwise waiving these requirements. Also, the cost of improvements required to meet the ADA provisions shall be included in the costs of the improvements for calculating substantial improvement.

### SECTION 41 Specific Standards

In all areas of special flood hazard (Zones A, AE, AH, AO, A1 –30, V, and VE) where base flood elevation data has been provided, as set forth in Section 31 or outlined in the Duties and Responsibilities of the local floodplain administrator (Section 33), the following provisions are required:

#### A. Residential Construction

- 1. New construction and substantial improvement of any residential structure (or manufactured home) shall have the lowest floor elevated no lower than three (3) feet above the base flood elevation. No basements are permitted. Should solid foundation perimeter walls be used to elevate a structure, flood openings sufficient to automatically equalize hydrostatic flood forces, shall be provided in accordance with the elevated buildings in Section 41D.

#### B. Non –Residential Construction

- 1. New construction and substantial improvement of any commercial, industrial, or non –residential building (including manufactured home) shall have the lowest floor elevated no lower than three (3) feet above the level of the base flood elevation. Should solid foundation perimeter walls be used to elevate a structure, flood openings sufficient to automatically equalize hydrostatic flood forces, shall be provided in accordance with the elevated buildings requirements in Section 41D. No basements are permitted. Buildings located in all A –zones may be flood –proofed in lieu of being elevated provided that all areas of the building below the required elevation are water tight

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with walls substantially impermeable to the passage of water, and use structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy.

2. A registered, professional engineer or architect shall certify that the standards of this subsection are satisfied. Such certifications shall be provided to the official as set forth in the floodproofing certification requirements in Section 32B1. A variance may be considered for wet –floodproofing agricultural structures in accordance with the criteria outlined in Section 50D. Agricultural structures not meeting the criteria of Section 50D must meet the non –residential construction standards and all other applicable provisions of this ordinance. Structures that are floodproofed are required to have an approved maintenance plan with an annual exercise. The local floodplain administrator must approve the maintenance plan and notification of the annual exercise shall be provided to it.

### C. Manufactured Homes

1. Manufactured homes that are placed or substantially improved on sites outside a manufactured home park or subdivision, in a new manufactured home park or sub –division, in an expansion to 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 no lower than three (3) feet above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist floatation, collapse, and lateral movement.
2. 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 for residential construction in Section 41A of this ordinance must be elevated so that the lowest floor of the manufactured home is elevated no lower than three (3) feet above the base flood elevation, and be securely anchored to an adequately anchored foundation to resist floatation, collapse, and lateral movement.
3. For the purpose of this requirement, manufactured homes shall be anchored to resist floatation, collapse, and lateral movement in accordance with Section 40 –29 –10 of the South Carolina Manufactured Housing Board Regulations, as amended. Additionally, when the elevation requirement would be met by an elevation of the chassis 36 inches or less above the grade at the site, the chassis shall be supported by reinforced piers or engineered foundation. When the elevation of the chassis is above 36 inches in height an engineering certification is required.
4. An evacuation plan must be developed for the 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 local floodplain administrator and the local Emergency Preparedness Coordinator.

### D. Elevated Buildings – New construction and substantial improvements of elevated buildings that include fully enclosed areas below the lowest floor that are usable solely for the parking of vehicles, building access, or limited storage in an area other than a basement, and which are subject to flooding shall be designed to preclude finished space and be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters.

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



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- a. Provide a minimum of two (2) openings on different walls 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 each opening must be no more than one (1) foot above the higher of the interior of exterior grade immediately under the opening;
  - c. Only the portions of openings that are below the base flood elevation (BFE) can be counted towards the required net open area.
  - d. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided they permit the automatic flow of floodwaters in both directions.
  - e. 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 (1) side of the building.
2. **Hazardous Velocities** – Hydrodynamic pressure must be considered in the design of any foundation system where velocity waters or the potential for debris flow exists. If flood velocities are excessive (greater than five (5) feet per second), foundation systems other than solid foundation walls should be considered so that obstructions to damaging flood flows are minimized.
3. **Enclosures Below Lowest Floor** –
- a. 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).
  - b. The interior portion of such enclosed area shall not be partitioned or finished into separate rooms, must be void of utilities except for essential lighting as required for safety, and cannot be temperature controlled.
  - c. One (1) wet location switch and/or outlet connected to a ground fault interrupt breaker may be installed below the required lowest floor elevation specified in the specific standards outlined in Sections 41A through 41D.
  - d. All construction materials below the required lowest floor elevation specified in the specific standards outlined in Sections 41A through 41D should be of flood resistant materials.
- E. **Floodways** – Located within areas of special flood hazard established in Section 3 are areas designated as floodways. The floodway is an extremely hazardous area due to the velocity of flood waters 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, additions, and other developments shall be permitted unless:
    - a. 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 local floodplain administrator.
    - b. A Conditional Letter of Map Revision (CLOMR) has been approved by FEMA. A Letter of Map Revision must be obtained upon completion of the proposed development.

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2. If Section 41E1 is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Article IV.
  3. No manufactured homes shall be permitted except in an existing manufactured homes park or subdivision. A replacement manufactured home park may be placed on a lot in an existing manufactured home park or subdivision provided in the anchoring and elevation standards of Section 41C and the encroachment standards of Section 41E1 are met.
  4. Permissible uses within floodways may include: general farming, pastures, outdoor plant nurseries, horticulture, forestry, wildlife sanctuary, game farm, and other similar agricultural, wildlife, and related uses. Lawns, gardens, play areas, picnic grounds, and hiking and horsebackriding trails are acceptable uses provided that they do not employ structures or fill. Substantial development of a permissible use may require a no –impact certification. The uses listed in this subsection are permissible only if and to the extent that they do not cause any increase in base flood elevations or changes to the floodway configuration.
- F. **Requirements for Recreational Vehicles** – Recreational vehicles placed on sites within AE zones and within coastal high hazard areas on the city's flood insurance rate map shall be on the site for fewer than 180 consecutive days and be ready for highway use. A recreational vehicle is ready for highway use. A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions. The recreational vehicle must meet all the requirements for new construction, including anchoring and elevation requirements of Section 41D, above.
- G. **Map Maintenance Activities** – The National Flood Insurance Program (NFIP) requires flood data to be reviewed and approved by FEMA. This ensures that flood maps, studies, and other data identified in Section 3 accurately represent flooding conditions so appropriate floodplain management criteria are based on current data. The following map maintenance activities are identified:
1. Requirement to Submit New Technical Data
    - a. For all development proposals that impact floodway delineations or base flood elevations, the community shall ensure that technical or scientific data reflecting such changes be submitted to FEMA as soon as practicable, but no later than six (6) months of the date such information becomes available. These development proposals include but are not limited to:
      - (1) Floodway encroachments that increase or decrease base flood elevations or alter floodway boundaries;
      - (2) Fill sites to be used for the placement of proposed structures where the applicant desires to remove the site from the special flood hazard area;
      - (3) Alteration of watercourses that result in a relocation or elimination of the special flood hazard area, including the placement of culverts; and
      - (4) Subdivision or large scale development proposals requiring the establishment of base flood elevations in accordance with Section 42A.
    - b. It is the responsibility of the applicant to have technical data, required in accordance with Section 41G, prepared in a format required for a Conditional Letter of Map Revision or Letter of Map Revision, and submitted to FEMA. Submittal and processing fees for these map revisions shall also be the responsibility of the applicant.

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- c. The local floodplain administrator shall require a Conditional Letter of Map Revision prior to the issuance of a floodplain development permit for:
  - (1) Proposed floodway encroachments that increase the base flood elevation; and
  - (2) Proposed development which increases the base flood elevation by more than one (1) foot in areas where FEMA has provided base flood elevations but no floodway.
- d. Floodplain development permits issued by the local floodplain administrator shall be conditioned upon the applicant obtaining a Letter of Map Revision from FEMA for any development proposal subject to Section 41G.
2. Right to Submit New Technical Data – The floodplain administrator may request changes to any of the information shown on an effective map that does not impact floodplain or floodway delineations or base flood elevations, such as labeling or planimetric details. Such a submission shall include appropriate supporting documentation made in writing by the local jurisdiction and may be submitted at any time.

### H. Accessory Structures

1. Detached accessory structures used only for parking or storage are permitted at grade if:
  - a. In special flood hazard areas other than coastal high hazard areas (Zones A, AE, AH, AO, and A1-30), they are not larger than one-story and 600 square feet in area. Walls must have openings in compliance with Article IV.B.4.(a).
  - b. In coastal high hazard areas (Zones V, VE, V1-30, and VO) they are not larger than 100 square feet and in compliance with Section 45.
  - c. Anchored to resist flotation, collapse, and lateral movement.
  - d. Flood damage resistant materials used below the base elevation in accordance with Technical Bulletin 2, Flood Damage Resistant Materials Requirement.
  - e. Mechanical, electrical, and utility equipment comply with the requirements of 40 F.
  - f. Accessory structures shall be designed to have low flood damage potential.
  - g. Accessory structures shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters.
- I. **Swimming Pool Utility Equipment Rooms** – If the building cannot be built at or above the BFE, because of functionality of the equipment then a structure to house the utilities for the pool may be built below the BFE with the following provisions:
  1. Meet the requirements for accessory structures in Section 41H.
  2. The utilities must be anchored to prevent flotation and shall be designed to prevent water from entering or accumulating within the components during conditions of the base flood.

### J. Elevators

1. Install a float switch system or another system that provides the same level of safety necessary for all elevators where there is a potential for the elevator cab to descend below the BFE during a flood

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per FEMA's Technical Bulletin 4-93 Elevator Installation for Buildings Located in Special Flood Hazard Areas.

2. All equipment that may have to be installed below the BFE such as counter weight roller guides, compensation cable and pulleys, and oil buffers for traction elevators and the jack assembly for a hydraulic elevator must be constructed using flood-resistant materials where possible per FEMA's Technical Bulletin 4-93 Elevator Installation for Buildings Located in Special Flood Hazard Areas.
- K. Fill** – An applicant shall demonstrate that fill is the only alternative to raising the building to meet the residential and non-residential construction requirements of Section 41A or Section 41B, and that the amount of fill used will not affect the flood storage capacity or adversely affect adjacent properties. The following provisions shall apply to all fill placed in the special flood hazard area:
1. Fill may not be placed in the floodway unless it is in accordance with the requirements in Section 41E1.
  2. Fill may not be placed in tidal or non-tidal wetlands without the required state and federal permits.
  3. Fill must consist of soil and rock materials only. A registered professional geotechnical engineer may use dredged material as fill only upon certification of suitability. Landfills, rubble fills, dumps, and sanitary fills are not permitted in the floodplain.
  4. Fill used to support structures must comply with ASTM Standard D-698, and its suitability to support structures certified by a registered, professional engineer.
  5. Fill slopes shall be no greater than two (2) horizontal to one (1) vertical. Flatter slopes may be required where velocities may result in erosion.
  6. The use of fill shall not increase flooding or cause drainage problems on neighboring properties.
  7. Fill may not be used for structural support in the coastal high hazard areas.
  8. Will meet the requirements of FEMA Technical Bulletin 10-01, Ensuring That Structures Built On Fill in or Near Special Flood Hazard Areas Are Reasonable Safe from Flooding.
- L. Standards for Subdivision Proposals and Other Development**
1. All subdivision proposals and other proposed new development shall be consistent with the need to minimize flood damage and are subject to all applicable standards in these regulations.
  2. All subdivision proposals and other proposed new development shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage.
  3. All subdivision proposals and other proposed new development shall have adequate drainage provided to reduce exposure to flood damage.
  4. The applicant shall meet the requirement to submit technical data to FEMA in Section 41G when a hydrologic and hydraulic analysis is completed that generates base flood elevations.

### **SECTION 42 Standards for Streams without Established Base Flood Elevation and/or Floodways**

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Located within the areas of special flood hazard established in Section 4, where streams exist but where no base flood data has been provided or where base flood data has been provided without floodways, the following provisions apply:

- A. In all areas of special flood hazard where base flood elevation data are not available, the applicant shall provide a hydrologic and hydraulic engineering analysis that generates base flood elevations for all subdivision proposals and other proposed developments containing at least fifty (50) lots or five (5) acres, whichever is less.
- B. No encroachments, including fill, new construction, substantial improvements and new development shall be permitted within 100 feet of the stream bank 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.
- C. If Section 42A 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 Article IV and shall be elevated or floodproofed in accordance with elevations established in accordance with Section 34K.
- D. Data from preliminary, draft, and final Flood Insurance Studies constitutes best available data. Refer to FEMA Floodplain Management Technical Bulletin 1-98 Use of Flood Insurance Study (FIS) Data as Available Data. If an appeal is pending on the study in accordance with 44 CFR Ch. 1, Part 67.5 and 67.6, the data does not have to be used.
- E. When base flood elevation (BFE) data is not available from a federal, state, or other source one (1) of the following methods may be used to determine a BFE For further information regarding the methods for determining BFEs listed below, refer to FEMA's manual Managing Floodplain Development in Approximate Zone A Areas:
  1. Contour Interpolation
    - a. Superimpose approximate Zone A boundaries onto a topographic map and estimate a BFE.
    - b. Add one-half of the contour interval of the topographic map that is used to the BFE.
  2. Data Extrapolation – A BFE can be determined if a site within 500 feet upstream of a reach of a stream reach for which a 100-year profile has been computed by detailed methods, and the floodplain and channel bottom slope characteristics are relatively similar to the downstream reaches. No hydraulic structures shall be present.
  3. Hydrologic and Hydraulic Calculations – Perform hydrologic and hydraulic calculations to determine BFEs using FEMA approved methods and software.

### **SECTION 43 Standards for Streams with Established Base Flood Elevations but without Floodways**

Along rivers and streams where Base Flood Elevation (BFE) data is provided but no floodway is identified for a Special Flood Hazard Area on the FIRM or in the FIS, no encroachments including fill, new construction, substantial improvements, or other development shall be permitted unless certification with supporting technical data by a registered professional engineer is provided demonstrating that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one (1) foot at any point within the community.

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### **SECTION 44 Standards for Areas of Shallow Flooding (AO Zones)**

Located within the areas of special flood hazard established in Section 4, are areas designated as shallow flooding areas. These areas have special flood hazards associated with flood depths of one (1) to three (3) feet where a clearly defined channel does not exist and where the path of flooding is unpredictable and indeterminate; therefore, the following provisions apply:

- A. All new construction and substantial improvements of residential structures shall have the lowest floor, elevated to at least as high as the depth number specified on the Flood Insurance Rate Map, in feet, above the highest adjacent grade. If no depth number is specified, the lowest floor shall be elevated at least two (2) feet above the highest adjacent grade.
- B. All new construction and substantial improvements of non –residential structures shall:
  1. Have the lowest floor elevated to at least as high as the depth number specified on the Flood Insurance Rate Map, in feet, above the highest adjacent grade. If no depth number is specified, the lowest floor shall be elevated at least two (2) feet above the highest adjacent grade; or,
  2. Be completely flood –proofed together with attendant utility and sanitary facilities to or above that level so that any space below that level is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effect of buoyancy. Certification is required as stated in Section 32.
- C. All structures on slopes must have drainage paths around them to guide water away from the structure.

### **SECTION 45 Coastal High Hazard Areas (V –Zones)**

Located within the areas of special flood hazard established in Section 4 or Section 34K are areas designated as coastal high hazard areas. These areas have special flood hazards associated with wave wash. The following provisions shall apply within such areas:

- A. All new construction and substantial improvements shall be located landward of the reach of 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.
- B. All new construction and substantial improvements shall be elevated so that the bottom of the lowest supporting horizontal structural member (excluding pilings or columns) of the lowest floor is located no lower than three (3) feet above the base flood elevation.
- C. All buildings or structures shall be securely anchored on pilings or columns, extending vertically below a grade of sufficient depth and the zone of potential scour, and securely anchored to the subsoil strata.
- D. All pilings and columns and the attached structures shall be anchored to resist flotation, collapse, lateral movement and scour due to the effect of wind and water loads acting simultaneously on all building components.
- E. A registered professional engineer or architect shall certify that the design, specifications and plans for construction are in compliance with the provisions contained in subsections C, D, F, and J of Section 45 of this ordinance.

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- F. There shall be no fill used as structural support. Non-compacted fill may be used around the perimeter of a building for landscaping/aesthetic purposes provided the fill will wash out from storm surge, thereby rendering the building free of obstruction prior to generating excessive loading forces, ramping effects, or wave deflection. Only beach compatible sand may be used. The local floodplain administrator shall approve design plans for landscaping/ aesthetic fill only after the applicant has provided an analysis by an engineer, architect, and/or soil scientist that demonstrates that the following factors have been fully considered:
1. Particle composition of fill material does not have a tendency for excessive natural compaction,
  2. Volume and distribution of fill will not cause wave deflection to adjacent properties; and
  3. Slope of fill will not cause wave run-up or ramping.
- G. There shall be no alteration of sand dunes that would increase potential flood damage.
- H. All new construction and substantial improvements have the space below the lowest floor either free of obstruction or constructed with non-supporting breakaway walls, open wood lattice-work, or insect screening intended to collapse under wind and water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system. For the purpose of this section, a breakaway wall shall have a design safe loading resistance of not less than ten (10) and no more than twenty (20) pounds per square foot. Breakaway wall enclosures shall not exceed 299 square feet. Only flood resistant materials shall be used below the required flood elevation specified in Section 41. One (1) wet location switch and/or outlet connected to a ground fault interrupt breaker may be installed below the required lowest floor elevation specified in Section 41.
- I. Use of breakaway walls which exceed a design safe loading resistance of twenty (20) pounds per square foot may be permitted only if a registered professional engineer or architect certifies that the designs proposed meet the following conditions:
1. Breakaway wall collapse shall result from water load less than that which would occur during the base flood.
  2. The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components (structural and nonstructural). The water loading shall be those values associated with the base flood. The wind loading values shall be those required by applicable IBC International Building Code.
  3. Such enclosed space shall be useable solely for parking of vehicles, building access, or storage. Such space shall not be used for human habitation, finished or partitioned into multiple rooms, or temperature-controlled.
- J. 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 elevation standards of Section 41C.
- K. Recreational vehicles shall be permitted in Coastal High Hazard Areas provided that they meet the Recreational Vehicle criteria of Section 41F.
- L. Accessory structures, below the required lowest floor elevation specified in Section 45B, are prohibited except for the following:

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### **1. Swimming Pools**

- a. They are installed at –grade or elevated so long as the pool will not act as an obstruction.
- b. They must be structurally independent of the building and its foundation.
- c. They may be placed beneath a coastal building only if the top of the pool and any accompanying decking or walkway are flush with the existing grade and only if the lower area remains unenclosed.
- d. As part of the certification process for V –zone buildings the design professional must consider the effects that any of these elements will have on the building in question and any nearby buildings.

### **2. Access Stairs Attached to or Beneath an Elevated Building**

- a. Must be constructed of flood –resistant materials.
- b. Must be constructed as open staircases so they do not block flow under the structure in accordance with Section 45B.

### **3. Decks**

- a. If the deck is structurally attached to a building then the bottom of the lowest horizontal member must be at or above the elevation of the buildings lowest horizontal member.
- b. If the deck is to be built below the BFE, then it must be structurally independent of the main building and must not cause an obstruction.
- c. If an at –grade, structurally independent deck is proposed, then a design professional must evaluate the design to determine if it will adversely affect the building and nearby buildings.

M. Parking areas should be located on a stable grade under or landward of a structure. Any parking surface shall consist of gravel or aggregate.

N. Electrical, ventilation, plumbing, heating and air conditioning equipment (including ductwork), 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 base flood event plus three (3) feet. This requirement does not exclude the installation of outdoor faucets for shower heads, sinks, hoses, etc., as long as cut off devices and back flow prevention devices are installed to prevent contamination to the service components and thereby minimize any flood damages to the building. No utilities or components shall be attached to breakaway walls.

**SECTIONS 46 through 49 Reserved**

## **ARTICLE V. VARIANCE PROCEDURES**

### **SECTION 50 Establishment of Appeal Board**

The Planning Commission as established by the Town of Atlantic Beach shall hear and decide appeals and requests for variances from the requirements of this ordinance when it is alleged there is an error in any



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requirement, decision, or determination made by the Planning Administrator in the enforcement or administration of this ordinance.

- A. Right to Appeal – Any person or taxpayer aggrieved by the decision of the Planning Commission may appeal such decision to the Fifteenth Judicial Circuit Court of Common, as provided in Section 5 –23 –150 of the SC Code of Laws.
- B. Historic Structures – Variances may be issued for the repair or rehabilitation of historic structures upon the determination that the proposed repair or rehabilitation will not preclude the structure's continue designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.
- C. Functionally Dependent Uses – Variances may be issued for development necessary for the conduct of a functionally dependant use, provided the criteria of this Ordinance are met, no reasonable alternatives exist, and the development is protected by methods that minimize flood damage and create no additional threat to public safety.
- D. Agricultural Structures – Variances may be issued to wet floodproof an agricultural structure provided it is used solely for agricultural purposes. In order to minimize flood damages during the base flood and the threat to public health and safety, the structure must meet all of the conditions and considerations of Section 50H, this section, and the following standards:
  1. Use of the structure must be limited to agricultural purposes as listed below:
    - a. Pole frame buildings with open or closed sides used exclusively for the storage of farm machinery and equipment;
    - b. Steel grain bins and steel frame corncribs;
    - c. General –purpose barns for the temporary feeding of livestock that are open on at least one (1) side; and,
    - d. For livestock confinement buildings, poultry houses, dairy operations, and similar livestock operations, variances may not be issued for structures that were substantially damaged. New construction and substantial improvement of such structures must meet the elevation requirements of Section 41B of this ordinance.
  2. The agricultural structure must be built or rebuilt, in the case of an existing building that is substantially damaged, with flood –resistant materials for the exterior and interior building components and elements below the base flood elevation.
  3. The agricultural structure must be adequately anchored to prevent flotation, collapse, or lateral movement. All of the structure's components must be capable of resisting specific flood –related forces including hydrostatic, buoyancy, hydrodynamic, and debris impact forces. Where flood velocities exceed five (5) feet per second, fast –flowing floodwaters can exert considerable pressure on the building's enclosure walls or foundation walls.
  4. The agricultural structure must meet the venting requirement of Section 41D of this ordinance.
  5. Any mechanical, electrical, or other utility equipment must be located above the base flood elevation (BFE), plus any required freeboard, or be contained within a watertight, floodproofed enclosure that is capable of resisting damage during flood conditions in accordance with Section 40F of this ordinance.

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6. The agricultural structure must comply with the floodway encroachment provisions of Section 41E of this ordinance.
  7. Major equipment, machinery, or other contents must be protected. Such protection may include protective watertight floodproofed areas within the building, the use of equipment hoists for readily elevating contents, permanently elevating contents on pedestals or shelves above the base flood elevation, or determining that property owners can safely remove contents without risk to lives and that the contents will be located to a specified site out of the floodplain.
- E. Considerations – In passing upon such applications, the Board of Zoning Appeals shall consider all technical evaluations, all relevant factors, all standards specified in other sections of this ordinance, 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, and the safety of access to the property in times of flood for ordinary and emergency vehicles;
  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 of the services provided by the proposed facility to the community;
  5. The necessity of the facility to a waterfront location, where applicable;
  6. The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;
  7. The compatibility of the proposed use with existing and anticipated development, and the relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
  8. 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;
  9. 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; and
  10. Agricultural structures must be located in wide, expansive floodplain areas, where no other alternative location for the agricultural structure exists. The applicant must demonstrate that the entire farm acreage, consisting of a contiguous parcel of land on which the structure is to be located, must be in the Special Flood Hazard Area and no other alternative locations for the structure are available.
- F. Findings – Findings listed above shall be submitted to the Board of Zoning Appeals, in writing, and included in the application for a variance. Additionally, comments from the Department of Natural Resources, Land, Water and Conservation Division, State Coordinator's Office, must be taken into account and included in the permit file.
- G. Floodways – Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result unless a CLOMR is obtained prior to issuance of the variance. In order to ensure the project is built in compliance with the CLOMR for which the

## Exhibit D2. FLOOD DAMAGE PREVENTION ORDINANCE

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variance is granted, the applicant must provide a bond for 100 percent of the cost to perform the development.

- H. Conditions – Upon consideration of the factors listed above and the purpose of this ordinance, the Board of Zoning Appeals may attach such conditions to the granting of variances as it deems necessary to further the purposes of this ordinance. The following conditions shall apply to all variances:
1. Variances may not be issued when the variance will make the structure in violation of other federal, state, or local laws, regulations, or ordinances.
  2. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
  3. 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 an 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 laws or ordinances;
  4. Any applicant to whom a variance is granted shall be given written notice specifying the difference between the base flood elevation (BFE) 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. Such notification shall be maintained with a record of all variance actions.
  5. The Planning Administrator shall maintain the records of all appeal actions and report any variances to the Federal Emergency Management Agency (FEMA) upon request.
  6. Variances shall not be issued for unpermitted development or other development that is not in compliance with the provisions of this ordinance. Violations must be corrected in accordance with Section 34E of this ordinance.

### SECTIONS 51 through 59 Reserved

## ARTICLE VI. LEGAL STATUS PROVISIONS

### SECTION 60 Effect on Rights and Liabilities under the Existing Flood Damage Prevention Ordinance

This Ordinance comes forward to address the adoption of the latest Flood Insurance Study by the Federal Emergency Management Agency (FEMA) and the latest Flood Insurance Rate Maps (FIRM). It is intended to update the current Flood Damage Prevention Ordinance for the Town of Atlantic Beach, adopted on December 2, 2019 to make it consistent with the South Carolina State Model Ordinance.

- A. Effect upon Outstanding Building Permits – Nothing herein contained shall require any change in the plans, construction, size, or designated use of any building, structure, or part thereof for which a building permit has been granted by the Chief Building Inspector or his authorized agents before the time of passage of this ordinance; provided, however, that when start of construction has not occurred under such outstanding permit within a period of sixty (60) days subsequent to passage of this ordinance, construction or use shall be in conformity with the provisions of this ordinance.
- B. Effective Date – This ordinance shall become effective upon adoption.

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PASSED:

1st Reading: December 13, 2021

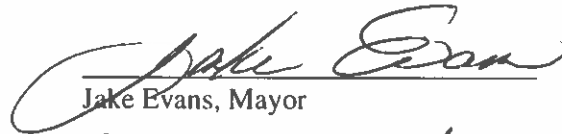
2nd Reading: December 21, 2021

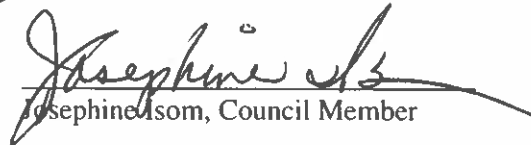
WITNESS my hand and the official seal of the Town of Atlantic Beach this the 21<sup>st</sup> day of 2021.

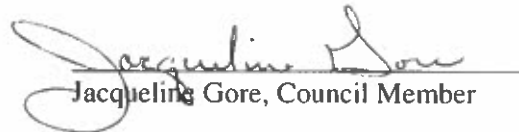
  
Signature

TOWN MANAGER  
Title

Duty Assembled in Council, assembled this 21<sup>st</sup> Day of December 2021.

  
Jake Evans, Mayor

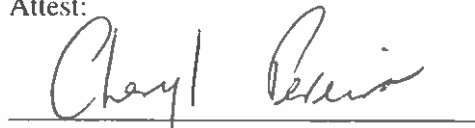
  
Josephine Isom, Council Member

  
Jacqueline Gore, Council Member

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Lenearl Evans, Council Member

Second Reading: December 21, 2021

Attest:

  
Town Clerk

  
Town Manager