



CITY OF FOLLY BEACH

1st Reading: January 8th, 2019

2nd Reading:

Introduced by: Mayor Goodwin

Date: January 8th, 2019

ORDINANCE 09-19

AN ORDINANCE AMENDING CHAPTER 151 (BEACH PRESERVATION AND CONSTRUCTION PROVISIONS) OF THE FOLLY BEACH CODE OF ORDINANCES, SECTION 151.23 (CONSTRUCTION STANDARDS FOR BULKHEADS, SEAWALLS, AND REVETMENTS BY AMENDING THE STANDARDS FOR SEAWALLS AND BULKHEADS.

The City Council of Folly Beach, South Carolina, duly assembled, hereby ordains that the Folly Beach Code of Ordinance be amended as follows:

NOTE: Deleted material struck through, new material in red:

SECTION 151.23 CONSTRUCTION STANDARDS FOR BULKHEADS, **RIPRAP, SEAWALLS AND REVETMENTS.**

(A) For the purposes of the section the following definitions shall apply:

BULKHEAD, a vertical erosion control device installed on high ground which is adjacent to the marsh front critical line as defined by OCRM.

RIPRAP, sloping material installed in front of a bulkhead on the side of the bulkhead facing the marsh front critical line as defined by OCRM.

SEAWALL, a vertical erosion control device installed on high ground which is adjacent to the oceanfront baseline as defined by OCRM.

REVETMENT, sloping material installed seaward of a seawall facing the oceanfront baseline as defined by OCRM.

~~-(A) (1)~~ **(B)** The following minimum construction standards are enacted.

~~{2}~~ **(1)** All erosion control structures placed in the beach and sand dune critical areas, wholly or partly within the Dune Management Area or the setback from the critical line must be maintained in an intact usable condition or removal may be sought at the owners expense.

(2) New or substantially improved seawalls and associated revetments on the beach constructed after March 1, 2019 and placed wholly or partly within the Dune Management Area must be constructed so that the top of the vertical seawall is at an elevation of 8' NAVD '88. Any portion of the Dune Management Area disturbed for the repair of an existing seawall or the construction of a new or substantially improved seawall

after March 1, 2019 shall be filled such that the finished grade of the area of disturbance is at an elevation of 10' NAVD '88 and planted with appropriate vegetation as designated by the Building Official.

(3) New or substantially improved bulkheads and associated riprap constructed along the marsh after March 1, 2019 and placed wholly or partly within the required setback from the critical line must be constructed so that the top of the vertical bulkhead is no higher than the adjacent grade on the landward face. Any portion of the critical line setback disturbed for the repair of an existing bulkhead or the construction of a new or substantially improved bulkhead after March 1, 2019 shall be filled such that the finished grade of the area of disturbance is at an elevation similar to the grade on the landward side and planted with appropriate vegetation as designated by the Building Official.

(4) Construction of bulkheads, seawalls, and revetments as well as the placement of riprap shall require a permit from the City and proof of location behind the SCDHEC OCRM critical line or baseline in the form of an as built current showing a certified baseline or critical line as applicable.

(5) No portion of a bulkhead, riprap, seawall, or revetment shall be placed seaward of the baseline or beyond the critical line without approval of SCDHEC OCRM.

—(3) (6) Bulkheads, riprap, and seawalls, and revetments shall either be designed by a professional engineer, registered in the state or and shall meet the following minimum standards:

(a) *Bulkheads and seawall requirements.*

1. *Materials.*

i. Reinforced concrete six inches thick designed with adequate reinforcement to achieve a 3,000 psi 28-day strength.

ii. Pressure treated wood three inches by ten inches or three inches by 12 inches tongue and groove, or a double thickness of two inches sheeting with staggered joints is acceptable for walls with a standing height of under four feet.

2. *Depth of embedment.* The depth of embedment of a bulkhead shall be at least equal the height of the wall above the ground. An allowance should be made to account for erosion scour after construction.

3. *Tiebacks.* Tiebacks shall be located at a spacing of eight feet or less and attached to secure anchors capable of withstanding a 2,000- pound pull. Tiebacks may be deleted if a revetment is placed seaward of the bulkhead.

4. *Backfill.* The bulkhead will be backfilled with a compacted clean granular material to provide adequate support. "Clean" shall mean no metal, wood or glass.

5. *Protection from flanking.* Bulkheads will either tie into adjacent bulkheads or will have an adequate return wall meeting the same requirements as the seaward wall.

6. *Seawalls.* No new vertical unfaced seawall shall be allowed on the ocean front. Any new vertical seawall surface must be faced with a sloping revetment.

—7. ~~A permit from the City Building Department is required for all seawalls on the beachfront. For any activities that may fall on or seaward of the baseline, proof of coordination with SCDHEC is required.~~

(b) *Revetments.*

1. *Materials.* Broken pavement, blocks or bricks are not acceptable materials for the outer layer of a revetment. However, they may be used for under layers. The outside of a

revetment shall consist of at least two layers of armor stones whose pieces shall range in weight from a minimum of ten pounds to a maximum of 250 pounds; at least 60% shall weigh more than 150 pounds.

2. *Construction.* Revetments shall be underlain with a commercial grade porous filter cloth designed for ocean erosion control and approved by the Building Official (i.e. Phillips 66 stock or equal), and placed on a slope no steeper than one vertical to two horizontal. The toe at the revetment shall extend at least two feet below the existing beach elevation and the ends shall be protected from flanking.

(c) Riprap.

1. *Materials.* Broken pavement, blocks or bricks are not acceptable materials for riprap.

2. *Design.* Riprap placement must be designed by a licensed marine contractor or a designed professional registered in the State of South Carolina.

~~-(B) (C) (1)~~ Adherence to these minimum standards will not guarantee that the bulkhead, riprap, seawall or revetment will withstand wave or tide forces or that it will protect against beach erosion.

~~(2)~~ These standards are to prevent unsightly and inferior structures that would have little or no chance of success, and could possibly become a hazard or nuisance on the beach. (95 Code, § 5-3-22) (Ord. 83-10, passed 8-2-83; Am. Ord. 83-18, passed 1-3-84; Am. Ord. 84-29, passed 12-18-84; Am. Ord. 02-05, passed 1-25-05; Am. Ord. 10-15, passed 8-11-15)

SECTION 151.24 SPECIAL REQUIREMENTS FOR CONSTRUCTION SEAWARD OF THE BASELINE OF FRONT BEACH LOTS.

If an applicant requests to build or rebuild a structure, other than an including an erosion control structure or device, seaward of the proposed baseline that is not allowed otherwise, the City may issue a special permit to the applicant authorizing the construction or reconstruction upon verification from SCDHEC OCRM that the structure has received approval from the State. if the The structure is shall not be constructed or reconstructed on a primary oceanfront sand dune or on the active beach. and, if If the beach erodes to the extent the permitted structure becomes situated on the active beach, the permittee agrees to remove the structure from the active beach. However, the use of the property authorized under this provision, in the determination of the city, must not be detrimental to the public health, safety, or welfare. (Ord. 28-98, passed - - 98)

ADOPTED this ___ day of _____, 2019, at Folly Beach, South Carolina.

Ayes: _____

Nays: _____

Abstains: _____

Municipal Clerk

Tim Goodwin, Mayor