

**CITY OF MARCO ISLAND  
ORDINANCE NO. 11-06**

**AN ORDINANCE AMENDING CHAPTER 6, ARTICLE III, DIVISION 2, OF THE CODE OF ORDINANCES, OF THE CITY OF MARCO ISLAND, FLORIDA ENTITLED "SEAWALLS AND REVETMENTS" BY AMENDING SECTION 6-82, DEFINITIONS, ADDING GENERAL INDICATORS OF A FAILED SEAWALL TO THE DEFINITION OF A FAILED SEAWALL OR REVETMENT; AMENDING SECTION 6-83, REQUIRING SUBMITTAL OF A BUILDING PERMIT APPLICATION FOR REPAIR OR REPLACEMENT OF A SEAWALL WITHIN 60 DAYS OF NOTIFICATION OF A FAILED SEAWALL; AMENDING SECTION 6-85 PROVIDING FOR PLACEMENT OF A SEAWALL WATERWARD OF AN EXISTING SEAWALL; PROVIDING FOR INCLUSION IN THE CODE OF ORDINANCES; PROVIDING FOR REPEAL OF CONFLICTS AND SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.**

**WHEREAS**, The City of Marco Island has adopted an ordinance for the construction, maintenance and repair of seawalls and revetments; and

**WHEREAS**, properly maintained seawalls and revetments serve to protect waterfront upland property and improvements located thereon against wave action and serve to stabilize the position of the shoreline; and

**WHEREAS**, a failed seawall or revetment with accompanying loss of soil, unless promptly replaced or repaired, may cause continuing loss of soil on adjoining properties which can seriously and adversely affect the stability of seawalls and revetments on those adjoining properties as well as the value of adjoining properties; and

**WHEREAS**, individual property owners are currently responsible for maintenance, repair, and replacement of seawalls and revetments along their property; and

**WHEREAS**, there exists a threat to public health, safety, and welfare because of the failure of some individual property owners to maintain, repair, or replace their failed seawalls or revetments; and

**WHEREAS**, general indicators of a failed seawall have been identified by the Waterways Advisory Committee following consultation with representatives of the marine construction and contracting industry; and

**WHEREAS**, a clearer and more definitive definition of a failed seawall is necessary to ensure uniform enforcement of the requirements for repair, maintenance and replacement of failing seawalls;

**WHEREAS**, construction of a new seawall waterward of an existing seawall can provide an alternative solution to removal and replacement of a failed seawall;

**Note:**

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**WHEREAS**, after considering the recommendation of the Planning Board, Waterways Advisory Committee and City Staff, and following a public hearing on the subject, the City Council has determined that it is in the best interest of the City of Marco Island to adopt this Ordinance; and

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MARCO ISLAND, FLORIDA:**

**SECTION 1. Recitals.** The foregoing “WHEREAS” clauses are hereby ratified and confirmed as being true, correct and reflective of the legislative intent underlying this Ordinance and are hereby made a specific part of this Ordinance.

**SECTION 2. Amendment and Adoption.** The following sections of the City of Marco Island Code of Ordinances are amended as follows:

**DIVISION 2. SEAWALLS AND REVETMENTS**

**Sec. 6-82. Definitions:** As used in this division, the following words shall have the following meanings:

*Anchor.* The buried portion of the tieback that is typically a reinforced concrete block, which engages the soil to resist the pull on the tie-rod.

*Batter.* The angle from plumb (vertical) deliberately constructed for a bearing pile.

*Concrete cap.* The structural element on top of the seawall panels.

*City.* The City of Marco Island, Collier County, Florida.

*Exposed height.* The distance measured from the top of the toe-berm to the top of the seawall cap.

*Failed seawall or revetment.* A seawall or revetment that has failed structurally for purposes of this Chapter is one that has collapsed and or no longer functions to stabilize the shoreline. ~~or that has moved from its original position and no longer stabilizes the position of the shoreline, or that is allowing significant amounts of soil from the landward property to migrate through the wall or revetment into the adjacent body of water. General indicators of a failed seawall shall include: 1) severe bowing or outward movement of a seawall; and/or 2) broken panels or separation of panels; and/or 3) severe wall rotation; and/or 4) severe wall settlement.~~

*Filter fabric.* A geosynthetic fabric manufactured specifically as a filter to inhibit soil movement through the fabric while allowing water to move through it. The fabric shall comply with Florida Department of Transportation specification for woven fabric specifically used for shore protection and filter applications.

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*French drain.* Stone wrapped with filter fabric to direct water to seawall weep holes to reduce hydrostatic pressure on the seawall.

*Minor repairs.* Those repairs that do not include work on existing reinforcing steel or tiebacks, epoxy injection of concrete cracks, or replacement of seawall components. Examples of minor repairs include exterior coatings and repair of concrete spalling that does not have exposed reinforcing steel.

*N.G.V.D.* National Geodetic Vertical Datum of 1929.

*Pre-construction depth.* The depth profile of the waterway in front of and to either side of the seawall requiring repairs prior to initiation of construction. Impact from soil migration into the waterway from the seawall property does not affect pre-construction depth.

*Return wall.* The portion of a seawall that is parallel to and abutting the adjacent property line. ~~Usually, This wall is short and is approximately one foot below grade.~~ The wall provides anchorage and stability to the seawall and provides soil containment.

*Revetment.* A sloping structure that serves to separate real property and/or improvements thereon from any natural or manmade body of water.

*Riprap.* Stone placed on filter fabric to aid in stabilizing soil.

*Seawall.* Any solid vertical structure, which serves to separate landward real property and/or any improvements thereon from any natural or manmade body of water.

*Sheet pile.* Preformed structural element providing vertical stability and separation of soil from an adjacent waterway.

*Tie-back system.* The structural system installed to laterally support the seawall. This system typically consists of a steel rod with one end embedded into the cap and a buried concrete anchor attached to the other end of the rod. However, it could be another assembly performing the same function such as a screw anchor.

*T-pile seawall.* Seawall consisting of specially formed support piles that support sheet piles horizontally with a concrete cap and tie-back at each pile.

*Technical specification.* Construction regulations for seawalls and revetments adopted by resolution by the city council.

*Tie-rod.* The rod connecting the cap to the anchor; part of the tie-back system.

*Toe-berm.* Soil on waterward side of seawall, typically underwater.

*Turbidity barrier.* A floating geotextile barrier that confines turbid water to the immediate construction area in accordance with state law.

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*Wale.* A horizontal structural element laterally supporting sheet piles. A concrete cap typically performs this function, but a wale can be positioned vertically anywhere along the height of the sheet piles.

*Waterward face:* For purposes of Section 6-85 (e) 2, the measurement shall be from the seaward face of the existing seawall panel to the seaward face of the restored seawall panel; for purposes of measurements related to dock protrusion and to required yards, if a wall in front of an existing wall is used, the waterward face shall be synonymous with the wet-face, and shall be measured from the face of the existing (encapsulated) face.

*Weep hole.* A hole through a sheet pile to allow water from behind the sheet pile to drain through the wall without allowing loss of soil.

**Sec. 6-83. Failed seawall or revetment declared to be unlawful and a public nuisance:** It is hereby declared unlawful and a public nuisance for any property owner in the city to allow, or fail to repair or reconstruct, any failed seawall or revetment on the owner's property. Within 60 days of notification of a failed seawall or revetment by the City of Marco Island, the property owner or his representative shall submit a building permit application to the Building Services Division, or otherwise provide proof of contract with a licensed Florida Engineer, for repair or replacement of a failed seawall or revetment. ~~the seawall as necessary to comply with the requirements and technical specifications of this ordinance.~~ Property owners who disagree with the determination of the ~~Seawall Inspector~~ City of Marco Island that a seawall or revetment has failed may provide, within 60 days, an independent inspection report completed by a licensed Florida Engineer describing the condition of the seawall or revetment. ~~The report shall include a description of any remedial repairs that may be necessary to restore the condition of the seawall in compliance with required standards. The report and any accompanying documentation shall be dated, signed and sealed by the Engineer and submitted to the Building Official for review.~~

**Sec. 6-85. Technical specification for seawalls and revetments:** The city shall adopt by resolution the technical specification that establishes minimum performance based standards for seawall and revetment construction and repair. Site-specific designs and specifications are required and shall be appropriate for conditions at each location and construction materials employed. All seawalls and revetments constructed, reconstructed, repaired, or altered in the city after the effective date of this division shall meet or exceed this technical specification as follows:

- (a) Minor repairs to the seawall or revetment that do not require physical alteration to the existing structural support system are exempt from the technical specification.
- (b) Major repairs to the seawall or revetment that requires replacement of any portion of the structural support system, shall comply with all applicable provisions of the technical specification for that portion of the seawall or revetment. Repairs shall restore the original integrity of the seawall or revetment.

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(c) Reconstruction of any seawall or revetment requiring complete reinstallation of the sheet pile portion of the structural support system, or any new seawall or revetment section installed adjacent to or independent from any existing seawall or revetment shall comply with all applicable provisions of the technical specification for that portion of the seawall or revetment.

(d) Seawalls shall be placed so that the waterward face of the wall is coincidental with the platted property or bulkhead line, if one exists, or at the intersection of the mean high water line with the existing shoreline. Upon specific request to the city, an administrative variance to the above may be approved by the city for seawalls that were originally constructed with an intentional offset from the property line provided the offset shall not be increased.

(e) The placing of a new seawall water ward (in front of) of an existing seawall is permitted in artificially created waterway such as a man-made canal/basin or in a natural or man-altered waterbody in accordance with 40E-4.051 (4) (a), (b), and (c) of Florida Administrative Code (FAC), pursuant to the following conditions:

1. 1. A Florida registered Professional Engineer certifies the new seawall design.
2. 2. The new seawall does not extend more than ~~12~~ 18 inches from the water ward face of the ~~original~~ existing vertical seawall location.
3. ~~The cap shall not extend more than 18 inches water ward from the water ward face of the previous seawall.~~
4. ~~The new seawall is in contact with the existing seawall.~~
5. 3. The new seawall is placed vertically plumb.
6. ~~The existing seawall was not constructed with an initial water ward offset from the property line.~~
7. 4. Placing a seawall in front of an existing seawall shall only be permitted once.
8. 5. Existing seawall sections that interfere with new seawall location shall be removed.
9. 6. The new seawall shall include an adequate “closure” at each property line.

(f) The placing of a new seawall waterward (in front of) of an existing seawall where the seawall is located on sovereign submerged land (Barfield Bay) may qualify for a consent by rule (18-21.005 (1)(b), FAC or a letter of consent (18-21.005 (1)(c), FAC if it meets the regulatory exemption criteria listed in these Rules.

(g) The top of cap elevation for all replacement and new seawalls and top elevation for all other revetments shall be equal to or greater than 4.5 feet N.G.V.D. but not exceeding 5.5 feet N.G.V.D. If the top of a seawall cap is constructed at an elevation differing from the adjacent property owner top of cap elevation by greater than one foot, then a return wall is required to sufficiently provide for the break in grade at the property line. ~~The return wall shall include one five-foot wide, sixteen-foot long panel installed one foot below grade.~~

(h) The community development director or his designee may approve after-the-fact height encroachments of up to three inches for seawall caps for which a certificate of completion or a final development order has not been granted. After-the-fact encroachments are subject to the following criteria:

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- (1) A survey must be prepared and certified by a Florida licensed registered engineer or surveyor identifying the exact location and size of the encroachment;
- (2) A statement of how and when the encroachment was created;
- (3) A statement of current ownership and ownership at the time the encroachment was created;
- (4) A letter of no objection from each adjacent property owner;
- (5) Any other factors which may show the encroachment was not intentionally created; and
- (6) Payment of any applicable fees imposed by the city council.

(i) A property owner desiring shoreline protection may request permission from the city to construct a seawall or revetment. In general, revetments would be constructed adjoining natural bodies of water (if allowed by the State of Florida), and seawalls adjoining manmade channels.

(i) A building permit is required for all seawall and revetment work. The building and planning divisions shall review the plans and specifications to determine compliance with the minimum requirements set forth herein.

(1) For minor repairs only, the application for permit shall include a drawing prepared by a licensed contractor with the legal description of the property signed by the owner or contractor as owner's representative.

(2) For all other seawall and revetment repair, alteration, reconstruction, or replacement, the application for permit shall include two copies of scaled plans and specifications signed and sealed by a professional engineer registered in the State of Florida including the legal description of the property.

(3) Seawall construction shall be subject to inspections by the building and planning division for the purpose of determining conformance of seawall construction with the permitted plans and this division. A schedule of quality control and inspections is given in the technical specification.

(4) Note there are State of Florida environmental regulations (F.A.C. ch. 40E-4) governing seawall and revetment work including exemptions to the state permit process. It remains the responsibility of the property owner where seawall and revetment work is to be performed to comply with all state and federal regulations governing the work. Additionally, the property owner shall comply with state and federal regulations concerning vegetation affected by the work, including the restoration of mangroves.

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(k) Existing seawall construction does not coordinate with location of perpendicular platted property lines throughout the city. Accordingly, a burden exists on the property owners to cooperate during seawall repair or replacement. If the permitted seawall or revetment repair or replacement would require entry onto neighboring properties to properly locate and construct the seawall expansion, joint tie-in or return wall, the owner seeking the repair or replacement should seek permission from the neighboring property owner. If said neighbor owner consents to entry, a temporary construction easement or license should be obtained of approximately six feet by 17 feet adjacent to the seawall and common boundary to accommodate the construction. The property owner undertaking the repairs shall be responsible for restoring the neighboring property to pre-work condition prior to receipt of a certificate of completion. These repairs shall be completed prior to final inspection. Depending on job site conditions, or if the adjoining property owner does not consent to entry, the seawall to be replaced or repaired shall include a return wall.

(l) Seawalls shall include adequate provision for pipe penetrations through the seawall as required by the city. The seawall design details for such penetrations shall be provided as part of the engineered design seawall plans for building permit.

**SECTION 3. Inclusion in the Code of Ordinances.** It is the intention of the City Council and it is hereby ordained that the amendments to the Code of Ordinances adopted by this Ordinance shall be included and become a part of the Code of Ordinances of the City of Marco Island. The sections of this Ordinance, as adopted, may be renumbered or relettered and that the word "ordinance" may be changed to "section," "article," or other appropriate word.

**SECTION 4. Conflicts and Severability.** If any word, phrase, clause, subsection, or section of this Ordinance is for any reason held unconstitutional or invalid for any reason or cause, the remaining portion of this Ordinance shall remain in full force and effect and shall be valid as if the invalid portion was not included in the Ordinance. All sections or parts of sections of all existing ordinances in conflict with this Ordinance shall be and the same are hereby repealed to the extent of such conflict.

**SECTION 5. Effective Date.** This Ordinance shall take effect immediately upon adoption.

**ADOPTED BY THE CITY COUNCIL OF THE CITY OF MARCO ISLAND** this 20<sup>th</sup> day of June 2011.

Attest:

CITY OF MARCO ISLAND, FLORIDA

By: 

Laura M. Litzan, City Clerk

(SEAL)

By: 

Gerard M. Gibson, Chairman

Reviewed for legal sufficiency:

By: 

Burt L. Saunders, City Attorney

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