



Seawall Alternative Guideline- Commercial

CGC, CBC, and Marine may apply.

Note: An Alternative Seawall can **ONLY** be done on Freshwater canals.

- Marine Improvement Application
- Two (2) copies of Site Plan showing:
 - Locate and show proposed work scope
- Two (2) copies of details and specifications – Applicant may use one of the following, depending on whether there is an existing vertical bulkhead seawall immediately adjacent to the proposed alternative seawall slope:
 - Scenario 1: If there **is not** an existing vertical bulkhead seawall immediately adjacent to the proposed alternative seawall slope, City approved Engineering Design Standards may be used (document was prepared by Public Works Department and is available online for download – link below)
http://www.capecoral.net/government/laws_and_codes/engineering_and_design_standards/index.php#.WaV4uGepWiM)
 - Scenario 2: If there **is** an existing vertical bulkhead seawall immediately adjacent to the proposed alternative seawall slope, Signed/Sealed plans by a professional engineer registered in Florida for the freshwater alternative seawall design must be included with the application. This design must include details for the retaining wall(s) which must be installed or extended at 90 degrees to the existing seawall, and securely attached for erosion control.
- Burrowing Owl/Gopher Tortoise Affidavit
- Owner Builder Affidavit (if homeowner).
- NOC required if value is \$2500 or greater.

Description:

- Length of seawall

Route to: OFFICE USE ONLY

Building	Species if Owl, Eagle or Gopher Tortoise
Zoning	Fire

Processing: OFFICE USE ONLY

- Type: Seawall Alternative
- Subtype: Commercial

Inspections:

- Notice of Commencement (NOC) 10 (if applies)
- Seawall Alt Slope (113) 20
- PW - Final Stormpipe 20 (if stormpipe in easement or crossing restriction)
- Seawall/Alt Slope Final (114) 30 (Final survey and construction stakes may be required on site for inspector for this inspection. See notes on page 2 of this guideline.)

Fees:



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- Seawall Alternative \$200.25
- Surcharge NO

Expiration:

- Six (6) months

NOTE: For the PW - Final Stormpipe inspection, the stormpipe must remain fully visible.

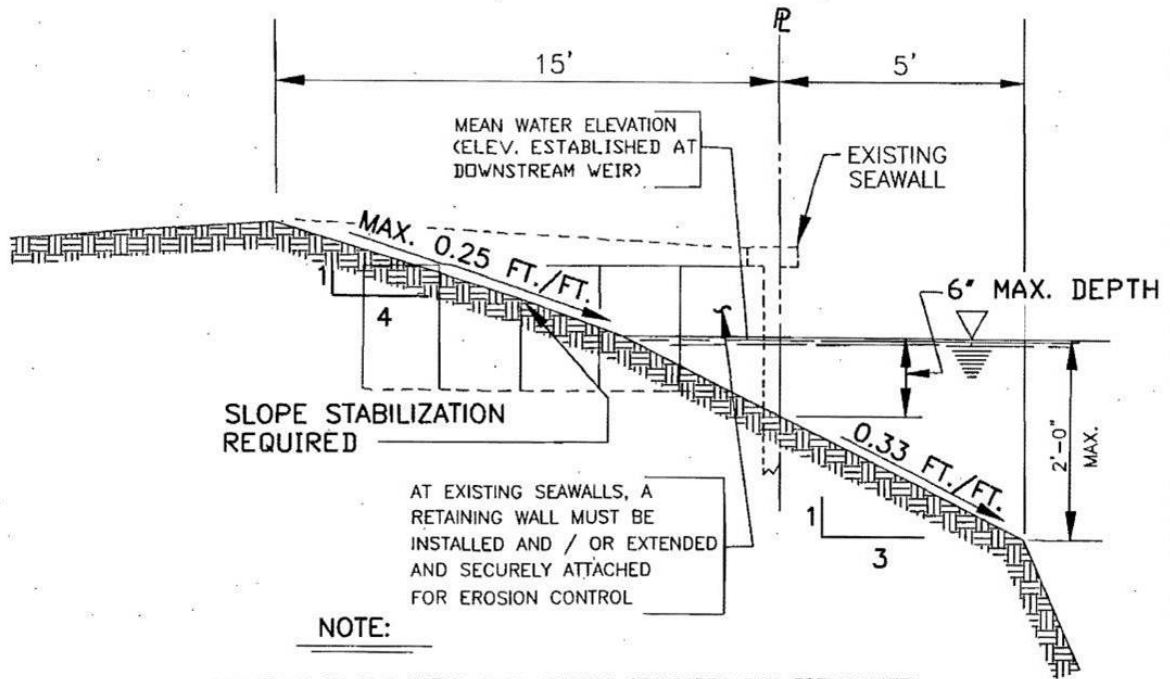
Additional Information regarding the minimum standards for alternatives to vertical bulkhead seawalls:

Freshwater alternative seawall designs, such as sodded slopes as shown on EDS Sheet H-3 below, must not extend past the property line above the sill elevation of the controlling weir. Sheet H-3 below shows that the depth of the water at the property line must be between 0 inches and 6 inches. Please note the following:

- 1) Culvert pipe cannot extend more than 4" (4 inches) from the face of a seawall or beyond the property line (into the canal right of way)
- 2) Maximum slope at the top of the slope, where the slope begins, is 0.25 ft/ft (4:1) and 3:1 max at the property line
- 3) Retaining walls which form terracing which runs parallel to the property line may be incorporated into the design, at the discretion of the design professional
- 4) The "15'" shown between the beginning of the slope and the property line is "15 feet minimum."
- 5) Alternative designs adjacent to a traditional vertical bulkhead seawall (e.g. concrete seawall) must install a securely attached wing wall for erosion control. Fill is not permitted to be placed in the canal to avoid this requirement (see note on Sheet H-3, below)
- 6) If there is not an existing vertical bulkhead (concrete) seawall adjacent to the new alternative seawall slope to provide a visual reference for the property line, the contractor must have a licensed surveyor shoot the elevation at the property line, provide the controlling weir sill elevation, provide a copy of the survey for the inspector on site, and install stakes on site for the inspectors so they can visually verify that the seawall slope does not extend above the water past the property line into the canal right of way. This is required prior to signing off the Seawall Alt/Slope Final inspection.
- 7) At review: If there is an existing vertical bulkhead seawall immediately adjacent to the proposed alternative seawall slope, Signed/Sealed plans by a professional engineer registered in Florida for the freshwater alternative seawall design must be included with the application. This design must include details for the retaining wall(s) which must be installed or extended at 90 degrees to the existing seawall, and securely attached for erosion control.

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MINIMUM STANDARDS FOR ALTERNATIVES TO VERTICAL BULKHEADS (FRESHWATER SYSTEMS ONLY)



VARIATIONS TO THE ESTABLISHED SEAWALL STANDARDS FOR FRESH WATER SYSTEMS WILL BE CONSIDERED BY THE CITY OF CAPE CORAL PUBLIC WORKS DEPARTMENT.

THE FOLLOWING MINIMAL DESIGN CRITERIA MUST BE INCORPORATED INTO THE PROPOSED DESIGN.

- A. MAXIMUM ALLOWABLE SLOPE TO WATERLINE IS 4 HORIZONTAL TO 1 VERTICAL (4:1).
- B. SLOPE TO BE STABILIZED WITH APPROVED MATERIALS / METHODS FOR EROSION CONTROL.
- C. MAXIMUM WATER DEPTH AT PROPERTY LINE IS TO BE 6 INCHES.
- D. TERRACING MAY BE USED TO ESTABLISH PROPER SLOPES.
- E. IN FRESHWATER CANAL SYSTEMS CONCRETE RAMPS MAY BE CONSTRUCTED AT A MAXIMUM WIDTH OF 20 FEET FOR A DISTANCE NOT EXCEEDING 15 FEET INTO THE WATER FROM THE PROPERTY LINE.
- F. ALL PLANS MUST BE SEALED BY A PROFESSIONAL ENGINEER, REGISTERED IN FLORIDA.



CITY OF CAPE CORAL ENGINEERING DESIGN STANDARD

APPROVED:	TITLE:	REVISIONS :	SHEET NO.
PUBLIC WORKS DIRECTOR	SEAWALLS - FRESHWATER CANAL ALTERNATE		H-3
	DATE: 03-28-2002		