



Seawall Alternative Guideline - Residential

CGC, CRC, CBC, Marine, and Owner Builder 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)
<https://files1.revize.com/revize/capecoralfl/Sht%20H-1%20Adopted%2011-03-2021.pdf>
 - 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: Residential

Inspections:

- | | |
|--------------------------------|--|
| • Notice of Commencement (NOC) | 0 (if applies) |
| • BLD Turbidity Screen | 1 |
| • PWM - Final Stormpipe | 2 (if storm-pipe in easement or crossing restriction) |
| • BLD Seawall/Alt Slope | 3 (Final survey and construction stakes may be required on site for inspector for this inspection. See notes on page 2 of this guideline.) |
| • BLD Marine Final | |

Fees:



Seawall Alternative Guideline - Residential

- Seawall Alternative \$200.25
- Surcharge NO

Expiration:

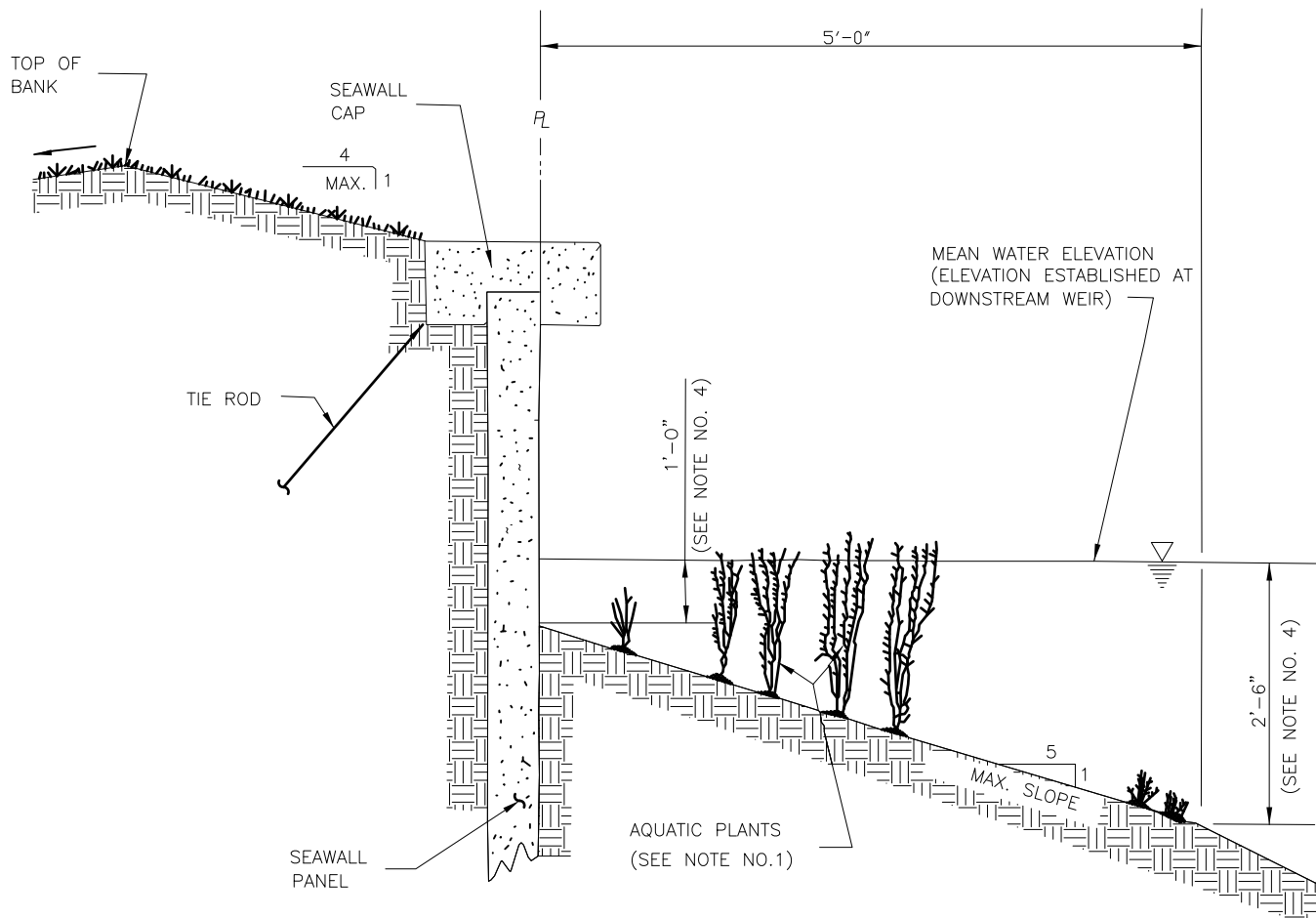
- Six (6) months

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-1J & H-1K below, must not extend past the property line above the sill elevation of the controlling weir. Sheet H-1J 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)
- 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-1J, 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.



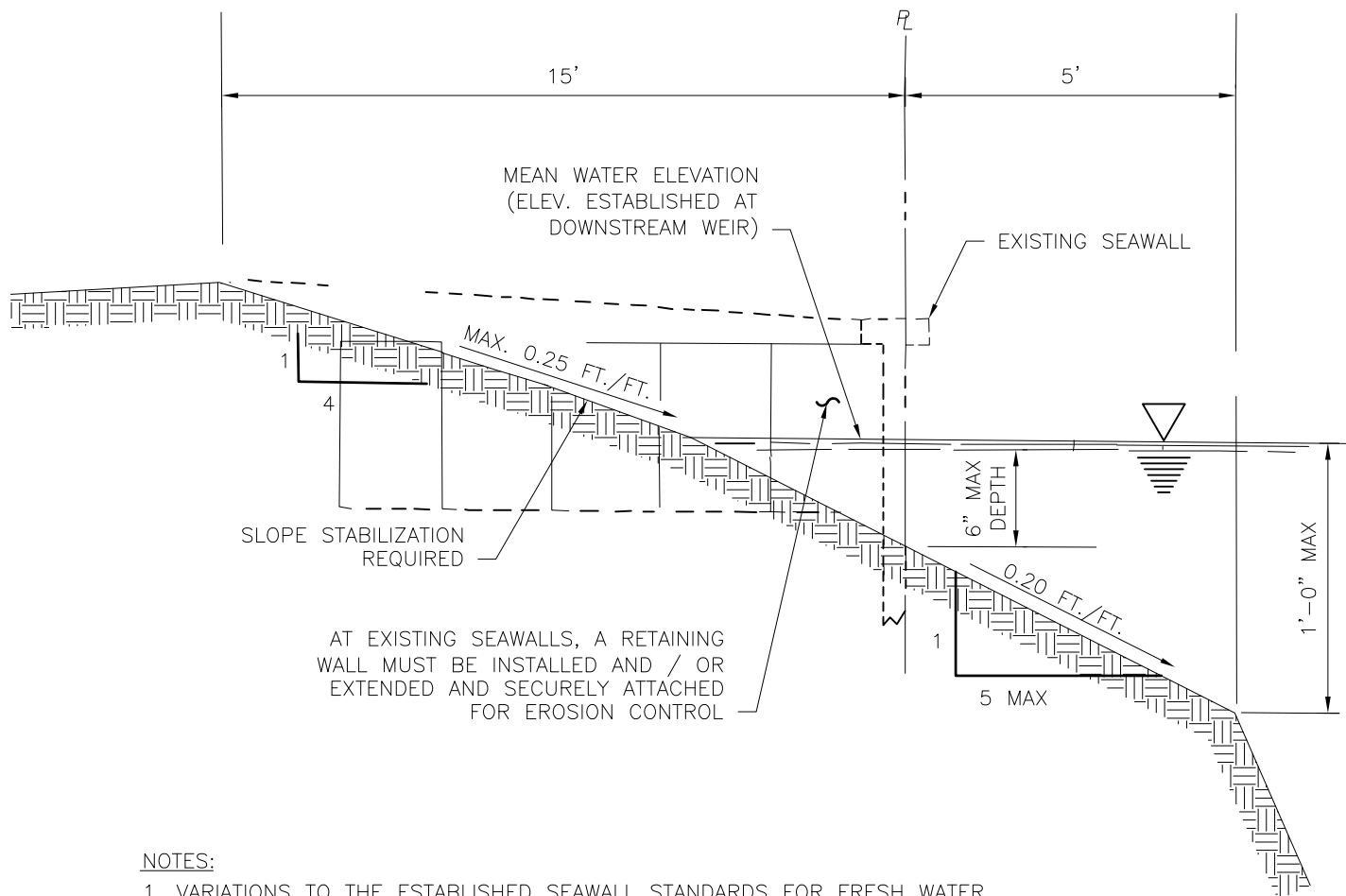
NOTES:

1. THE PLANTING OF EMERGENT AQUATIC PLANTS FOR LANDSCAPING IS OPTIONAL. (ONLY APPROVED VEGETATION WILL BE PERMITTED.)
2. VARIATIONS TO THIS STANDARD MUST BE APPROVED BY THE CITY PUBLIC WORKS DEPARTMENT.
3. CAP ELEVATION TO MATCH EXISTING SEAWALL CAPS OR MATCH EXISTING DOWNSTREAM WEIR WINGWALL CAP ELEVATION.
4. TOLERANCE FOR WATER DEPTH AT SEAWALL AND AT 5'-0" FROM PROPERTY LINE SHALL BE +/- 6".
5. IN CASES WHERE ELEVATIONS OF EXISTING SEAWALL CAP DIFFERS WITH THE NEW SEAWALL CAP, ELEVATION OF THE NEW CAP SLOPE SHOULD NOT EXCEED 10%.

PRECAST SEAWALL FRESHWATER CANAL

<p>ADOPTED BY CITY COUNCIL</p> <p>11-03-2021</p>	<p> CITY OF CAPE CORAL PUBLIC WORKS DEPARTMENT ENGINEERING DESIGN STANDARD</p>	<p>TITLE</p> <p>PRECAST CONCRETE SEAWALL FRESHWATER CANAL TYPICAL DETAIL</p> <p>REVISIONS:</p>	<p>SHEET NO.</p> <p>H-11</p>
--	---	---	-------------------------------------


G:\Engineering Design Standards\UPDATED STANDARDS\H - SEAWALLS\Sht H-1J bei.dwg, 11/23/2021 9:57:05 AM, Adobe PDF

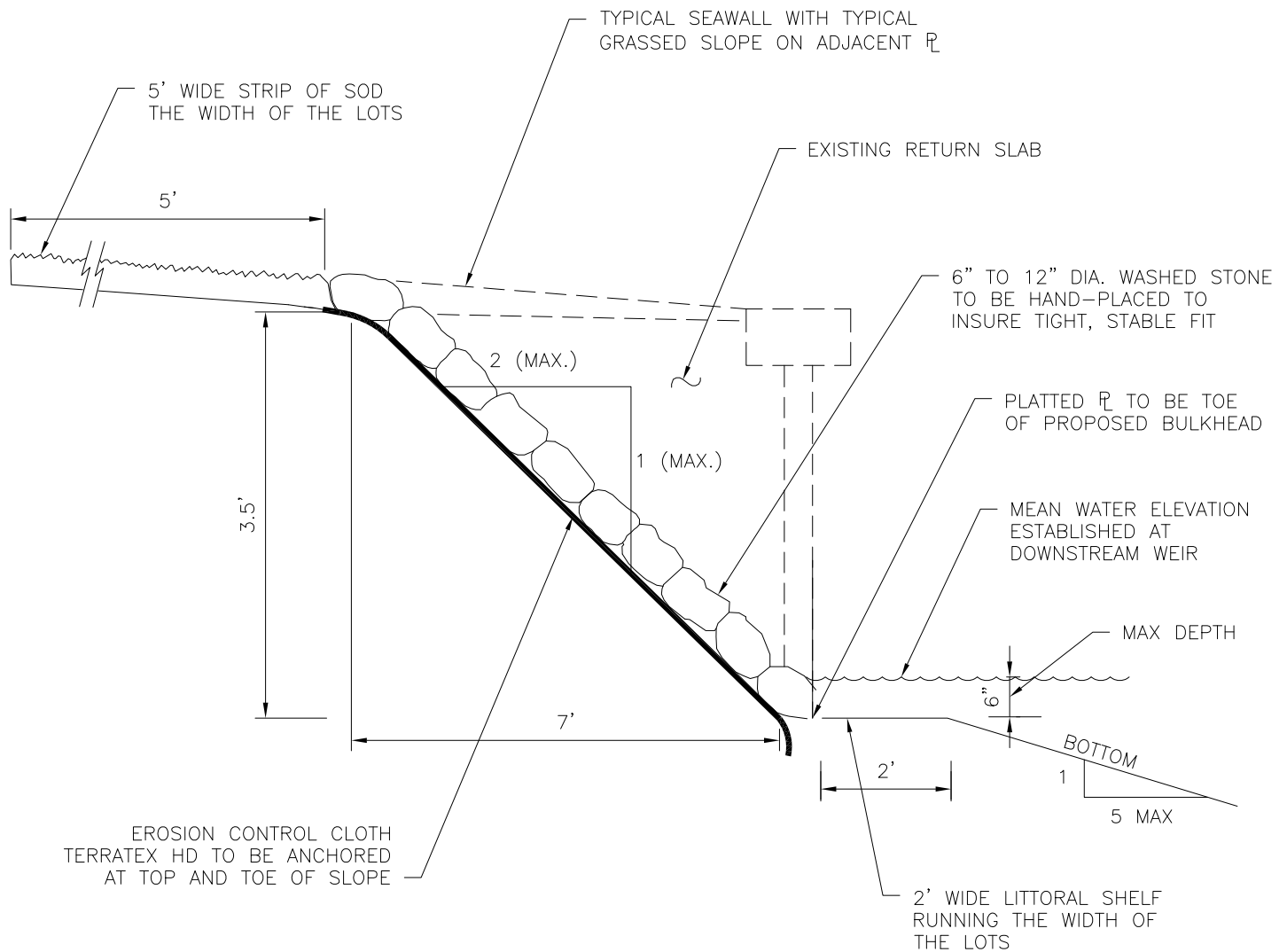


NOTES:


1. VARIATIONS TO THE ESTABLISHED SEAWALL STANDARDS FOR FRESH WATER SYSTEMS MAY BE CONSIDERED BY THE CITY OF CAPE CORAL PUBLIC WORKS DEPARTMENT.
2. THE FOLLOWING MINIMUM DESIGN CRITERIA MUST BE INCORPORATED INTO THE PROPOSED DESIGN.
 - A. MAXIMUM ALLOWABLE SLOPE TO WATERLINE IS 1:4 (V:H).
 - 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. ALL PLANS MUST BE SEALED BY A PROFESSIONAL ENGINEER, REGISTERED IN FLORIDA WITH STRUCTURAL EXPERIENCE.

VERTICAL BULKHEAD ALTERNATE 1

ADOPTED BY CITY COUNCIL		TITLE		SHEET NO.
11-03-2021		SEAWALLS - FRESHWATER CANAL ALTERNATE 1 TYPICAL DETAIL		H-1J
 CITY OF CAPE CORAL PUBLIC WORKS DEPARTMENT ENGINEERING DESIGN STANDARD		REVISIONS:		



VERTICAL BULKHEAD ALTERNATE 2

ADOPTED BY CITY COUNCIL	 CITY OF CAPE CORAL PUBLIC WORKS DEPARTMENT ENGINEERING DESIGN STANDARD	TITLE	SHEET NO.
11-03-2021		SEAWALLS - FRESHWATER CANAL ALTERNATE 2 TYPICAL DETAIL REVISIONS:	H-1K