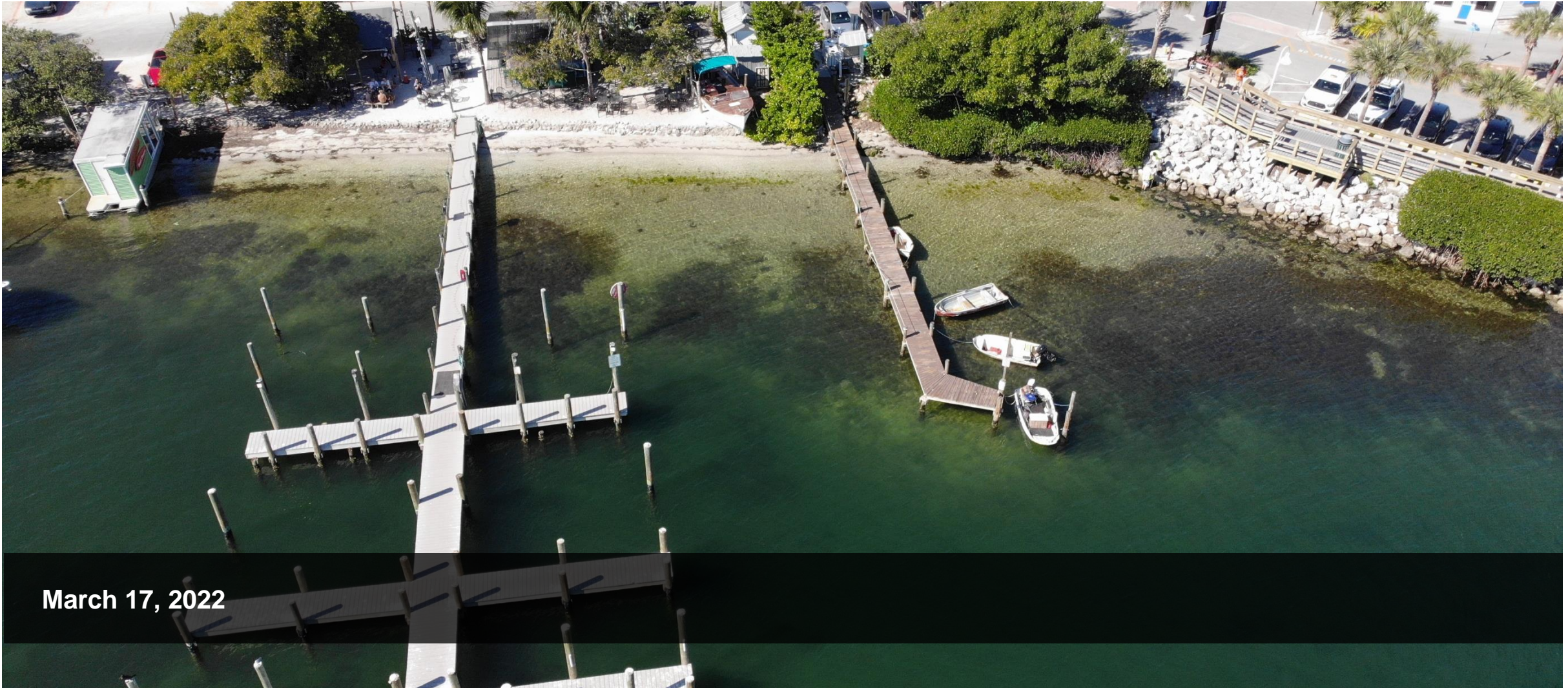


# Bradenton Beach - Bay Drive South Shoreline Adaptation Project

## Draft 60% Plan Review



March 17, 2022

## Project Summary

- Integrate best practices, per **Tampa Bay Regional Resiliency Coalition**, to design and implement living shorelines
- Incorporate regional sea level rise projections in conjunction with shoreline characteristics
- Project Limits - Bay Drive South from Bridge Street to 5th Street South, including the public pier and dinghy dock
- Workshops - Engage and inform the community on the design, construction, and functionality of living shorelines –  
[Held January 25, 2022 at 3<sup>rd</sup> Street S and Bay Drive South](#)

## Scope of Work

- Design, develop, and permit a resilient shoreline along a highly vulnerable section of Bay Drive S.
  - Living shorelines will be designed to create a breakwater parallel to the shore
  - Breakwaters options such as reef balls or natural materials such as oysters, clam beds, limestone boulders, mangrove planter islands, or bio-logs to restore natural contours and/or improve water quality

## Project Outcomes

- Provide natural protection and enhance terrestrial and estuarine habitats to increased resiliency related to sea level rise
- Educational component will promote the awareness of sustainable and resilient adaptation concepts



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**BRADENTON BEACH BAY  
 DRIVE SOUTH  
 ADAPTATION PROJECT**  
 107 GULF DRIVE NORTH,  
 BRADENTON BEACH, FL 34217

REVISIONS

#	DATE	DESCRIPTION

DESIGNED: CR  
 DRAWN: CR  
 CHECKED: TR & BS  
 IN CHARGE: BDF  
 FL PE 70856

PROJECT NUMBER: 0202101052.00  
 ISSUE DATE: 03/16/2022

SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (11"x17")

PHASE: PHASE 1

SHEET TITLE: PROPOSED DESIGN

SHEET NUMBER: **C-5**  
 SHEET 6 OF 11



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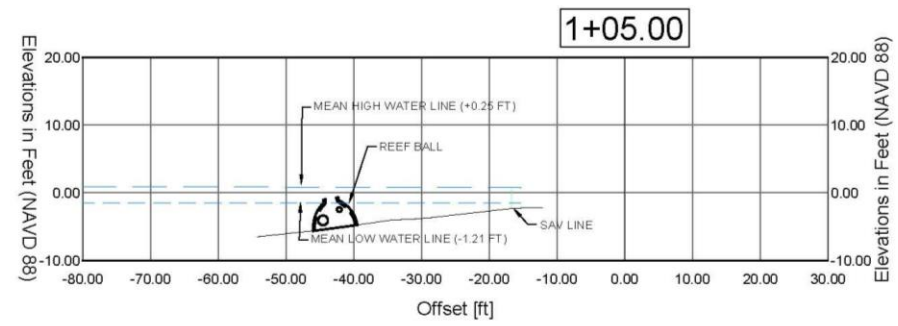
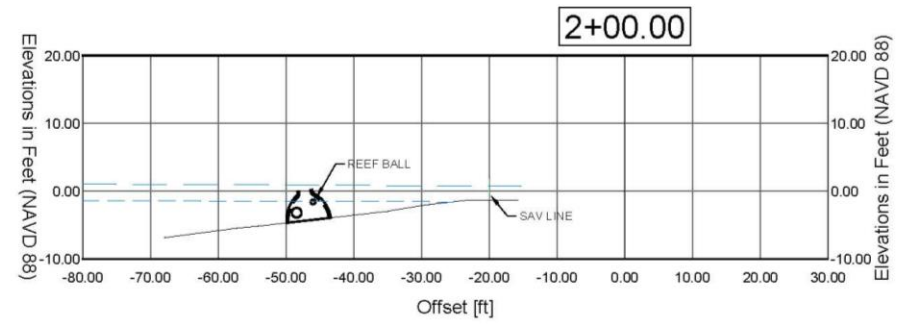
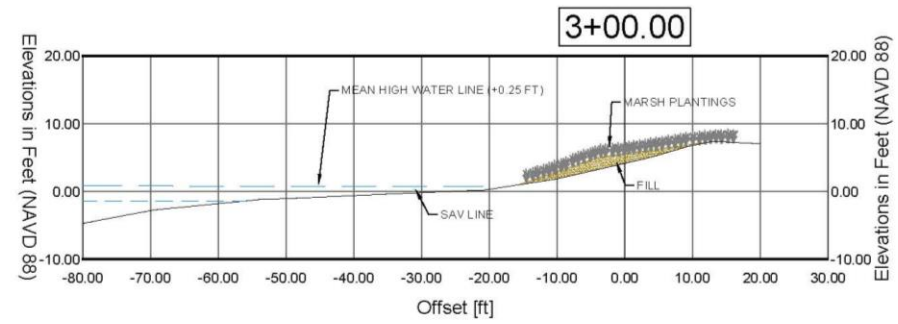
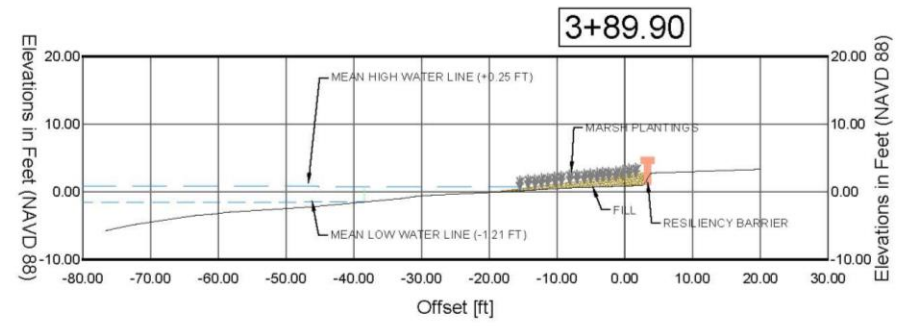
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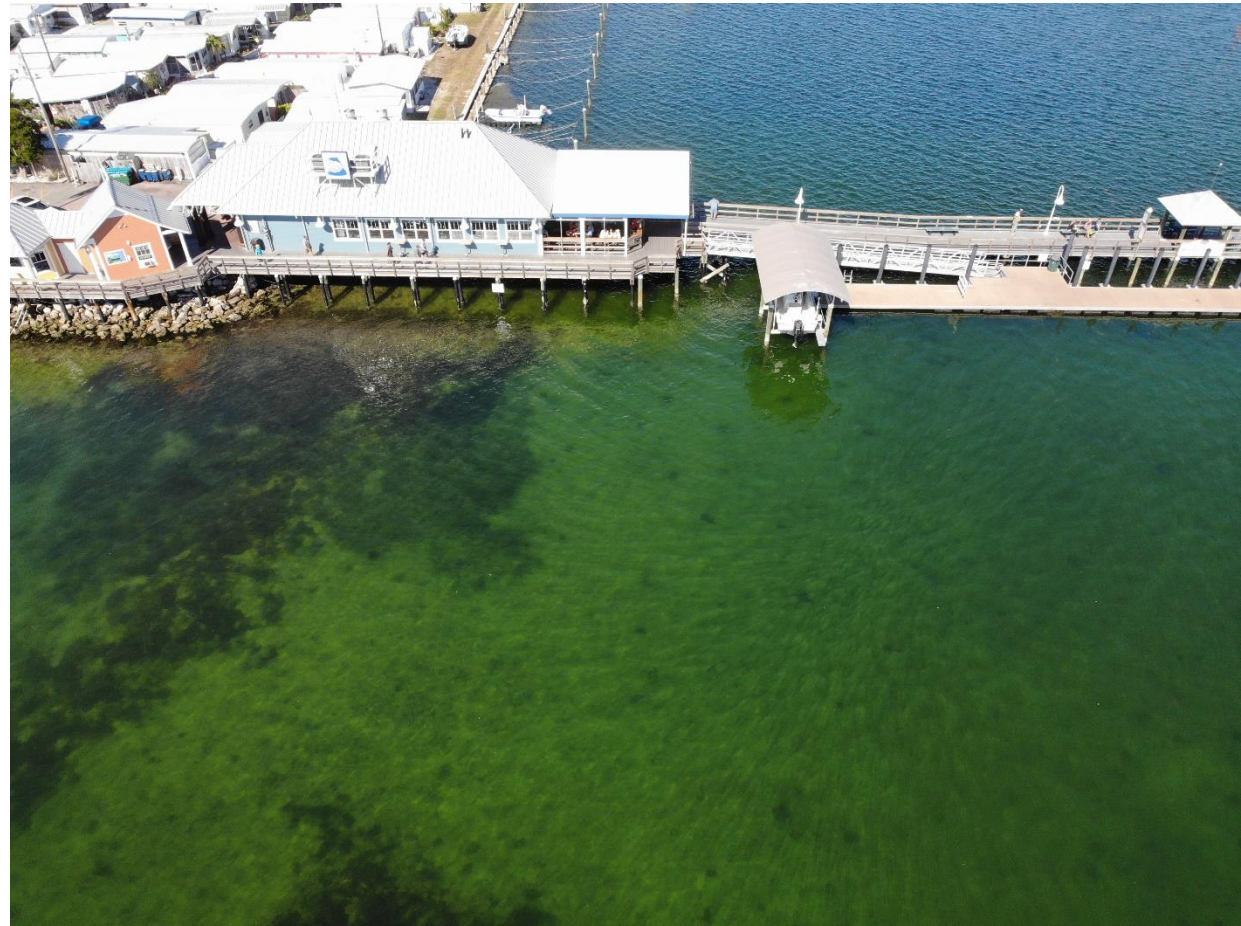
CROSS SECTIONS  
 VIEWS (1)

SHEET NUMBER

**C-8**



VERTICAL SCALE: 1"=10'  
 HORIZONTAL SCALE: 1"=10'





# Clearwater Beach



Smathers Beach, Key West







Located by M&B  
Surveying, Inc.  
on 11-19-2019  
Verified on  
02-07-2022

Lands Described  
in Board of Trustees of the  
Internal Improvement Fund  
of The State of Florida  
Document #373973  
Lease Number: 410035833

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Lands Described  
in Board of Trustees of the  
Internal Improvement Fund  
of The State of Florida  
Document #21482



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PHASE 1

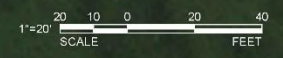
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PROPOSED DESIGN  
(2)

SHEET NUMBER

**C-6**

SHEET 7 OF 11





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PHASE

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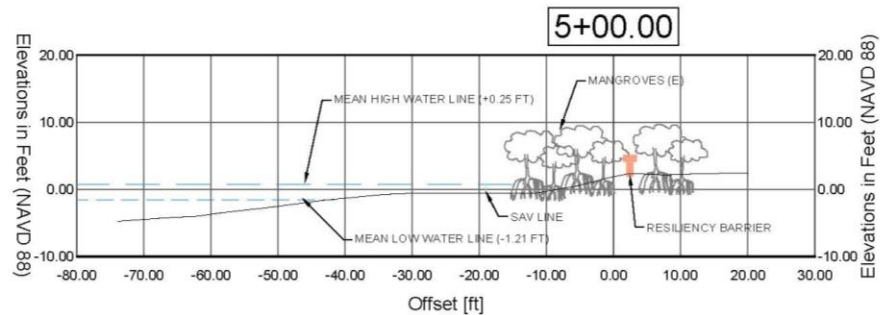
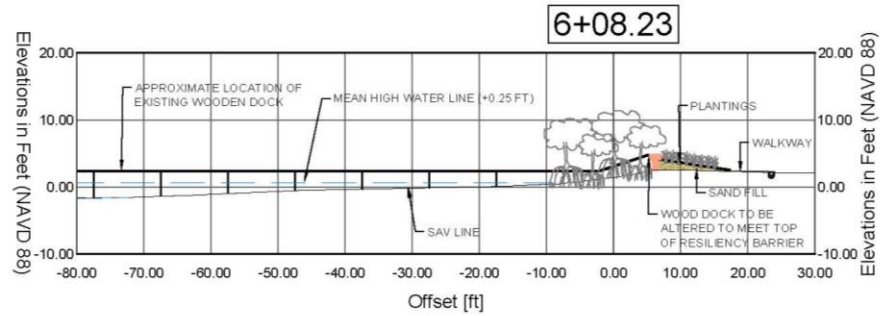
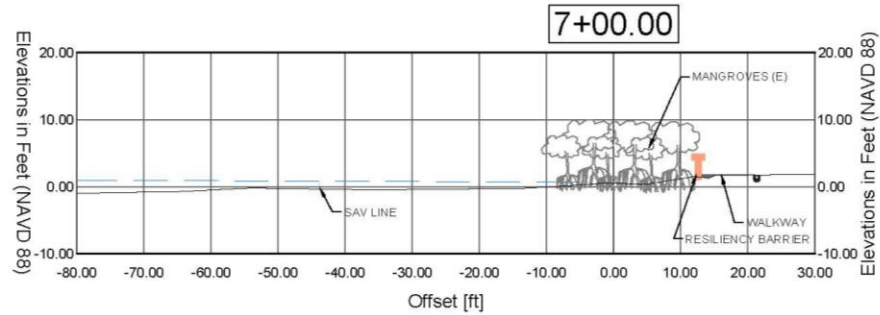
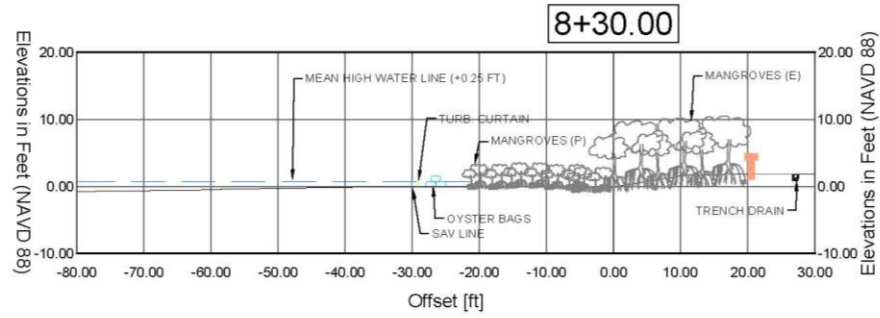
SHEET TITLE

CROSS SECTIONS  
VIEWS (2)

SHEET NUMBER

C-9

SHEET 10 OF 11



VERTICAL SCALE: 1"=10'  
HORIZONTAL SCALE: 1"=10'





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PHASE PHASE 1

SHEET TITLE

PROPOSED DESIGN (3)

SHEET NUMBER

**C-7**

SHEET 8 OF 11





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PROJECT NAME

REVISIONS

#	DATE	DESCRIPTION

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IN CHARGE	BCF FL PE 70858

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ISSUE DATE 03/16/2022

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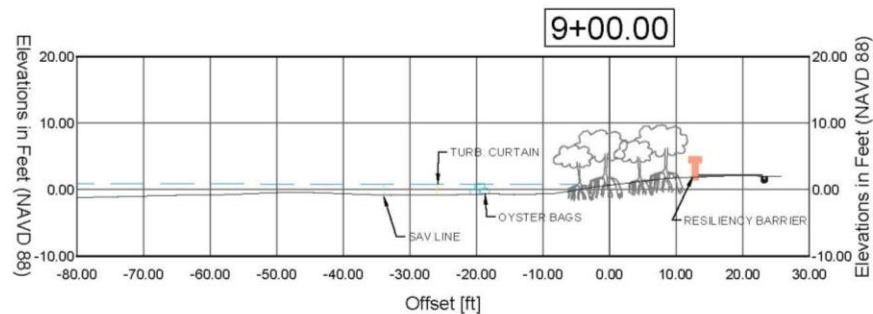
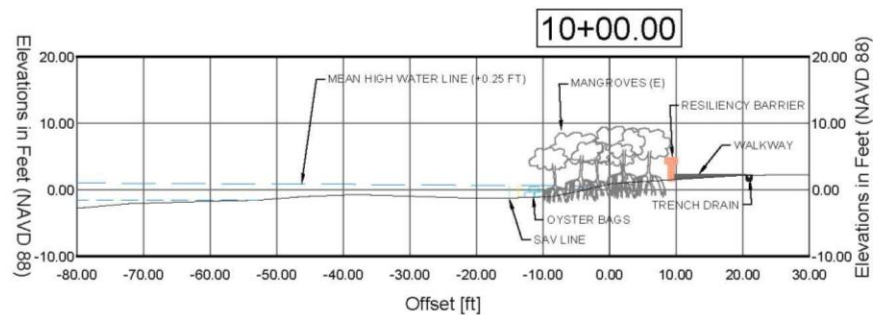
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VIEWS (3)**

SHEET NUMBER

**C-10**

SHEET 11 OF 11



VERTICAL SCALE: 1"=10'  
HORIZONTAL SCALE: 1"=10'





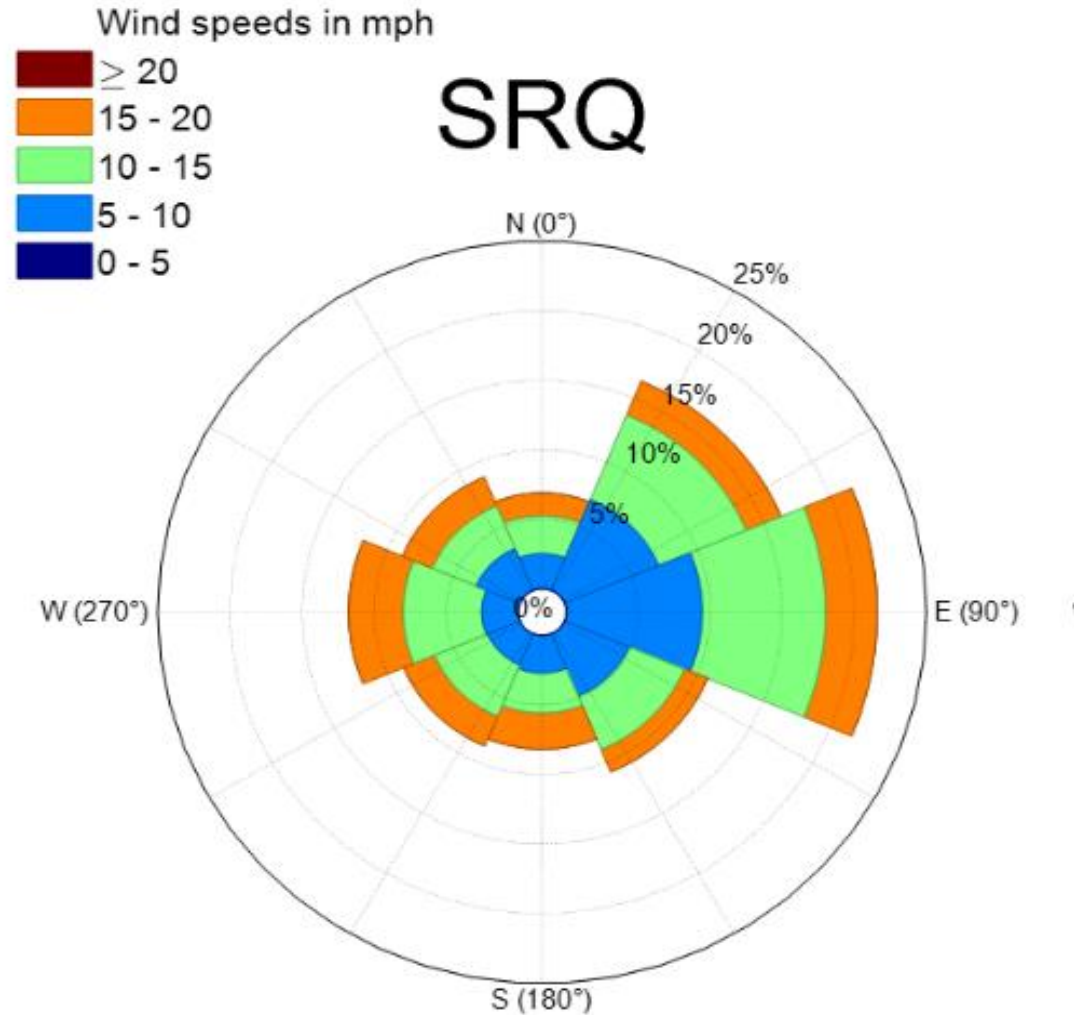
## Coastal Conditions Analysis - Sea Level Rise

Year	NOAA Int-Low (feet)	NOAA Intermediate (feet)	NOAA High (feet)
2000	0	0	0
2030	0.56	0.79	1.25
2040	0.72	1.08	1.77
2050	0.95	1.44	2.56
2060	1.15	1.87	3.48
2070	1.35	2.33	4.56
2080	1.54	2.82	5.71
2090	1.71	3.38	7.05
2100	1.90	3.90	8.50

SEA-LEVEL CHANGE  
RELATIVE TO THE YEAR  
2000 FOR ST. PETERSBURG,  
FLORIDA IN FEET ABOVE  
LOCAL MEAN SEA LEVEL  
(LMSL) (TAMPA BAY  
CLIMATE SCIENCE ADVISORY  
PANEL, 2019)



# Coastal Conditions Analysis – Wind Rose



# Coastal Conditions Analysis – Wave Analysis

Run ID	Event	Water Level [ft NAVD]	WIND DIRECTION FROM SOUTH-EAST			
			SOUTH EAST, 130°			
			Hsig [ft]	Tp [s]	W, Median rock size (lb)	d, Median Rock Diameter (ft)
WW1	10 yr. event	[MHHW]	1.7	3.0	175.3	1.3
WW2		[MHHW + Surge]	2.0	3.1	268.6	1.5
WW3	25 yr. event	[MHHW]	1.8	3.1	215.1	1.4
WW4		[MHHW + Surge]	2.2	3.3	369.6	1.7