

SARASOTA COUNTY GOVERNMENT

Planning and Development Services

TO: Sarasota County Commission
Charlotte County Commission

THROUGH: Thomas A. Harmer, County Administrator

FROM: Matthew R. Osterhoudt, Director, Planning and Development Services
Rachel A. Herman, Manager, Environmental Protection Division

DATE: April 19, 2017

SUBJECT: **Update and Discussion on Beach Nourishment**

RECOMMENDED MOTION(S) OR ACTION(S):

Update and discussion on beach nourishment on Manasota Key.

BACKGROUND:

At the joint commission meeting of Charlotte and Sarasota Counties on October 19, 2016, Charlotte County staff and consultants provided an update on the status of the ongoing efforts to renourish Charlotte County beaches. During the presentation, there was a general discussion about Sarasota County possibly joining with Charlotte County and extending their beach nourishment project further north to include portions of Sarasota County.

On November 8, 2016, the Sarasota County Commission provided guidance to conduct three public workshops and a property owner survey to gauge support for a possible beach nourishment project in the Sarasota County portion of Manasota Key. The workshops were held and the survey closed on March 10, 2017.

On April 3, 2017, the Sarasota County Commission reviewed the results of the property owner survey. Generally, there was an overall low response rate from property owners and mixed results for different areas of Manasota Key. As a result, the Sarasota County Commission provided guidance to conduct more focused outreach in the southern reach of Manasota Key, which is the most likely area for a potential beach nourishment project on Manasota Key.

The goal of additional outreach is to increase participation from property owners in this area in gauging support for a beach nourishment project and associated funding. Staff will be reaching out to Manasota Key representatives and property owners to seek their input and assistance in this additional outreach action.

Charlotte County staff and consultants will provide an update on the status of their ongoing project along with information about anticipated timeframes for upcoming items. Charlotte and Sarasota County staff will be available for questions.

ATTACHMENTS:

N/A

ROACTIVI - | O⁻ | EACTIVE



Charlotte County R-5



November 2001
Looking North

2001 Beach Erosion Study Conditions

Charlotte County R-5



May 2015
Looking North

2015 Beach Erosion Update Conditions



HINDSIGHT IS 20/20

Charlotte County R-5

November 2001
Looking South

2001 Beach
Erosion Study
Conditions



Charlotte County R-5

May 2015
Looking South

2015 Beach
Erosion Update
Conditions

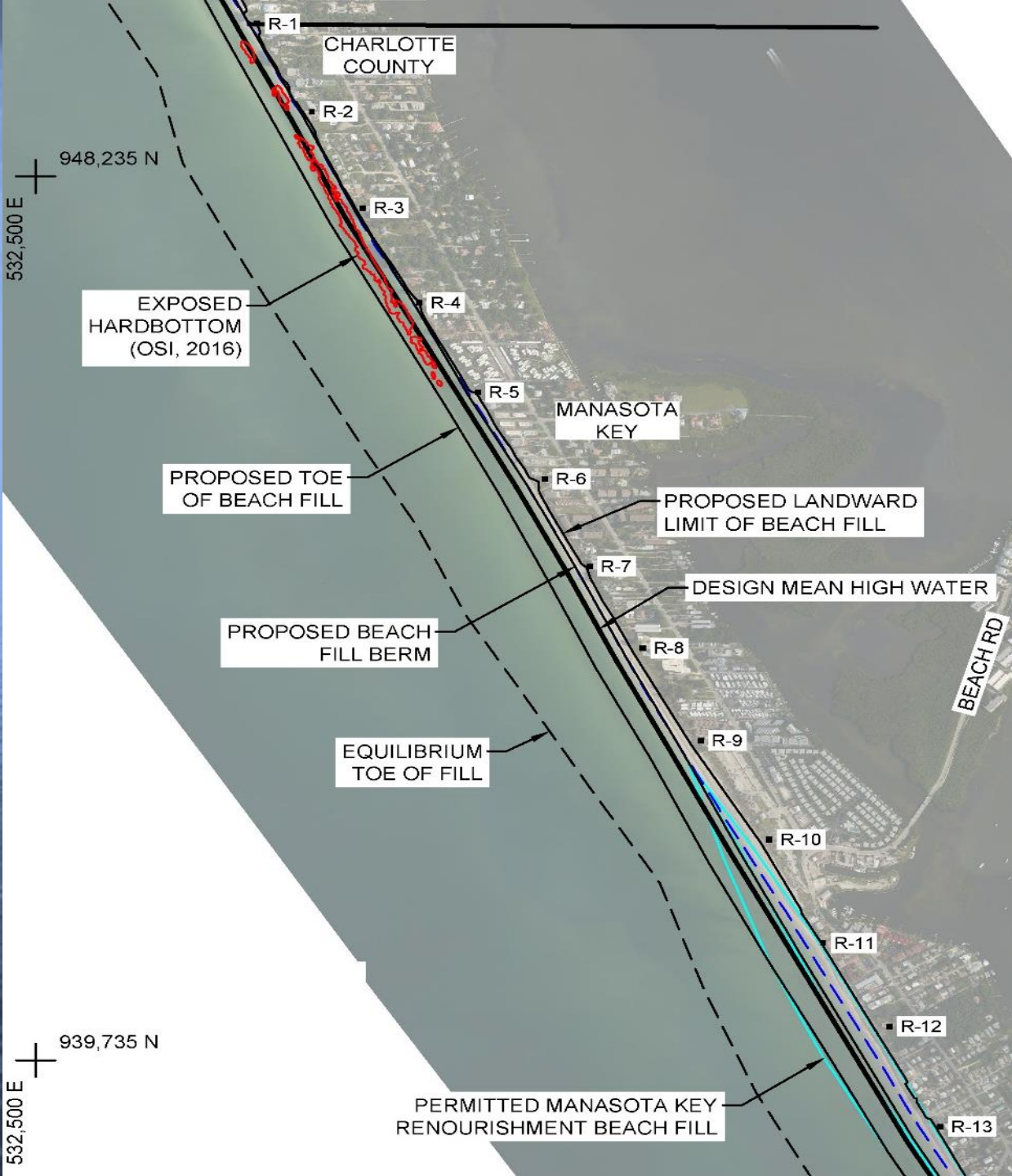


New Armoring

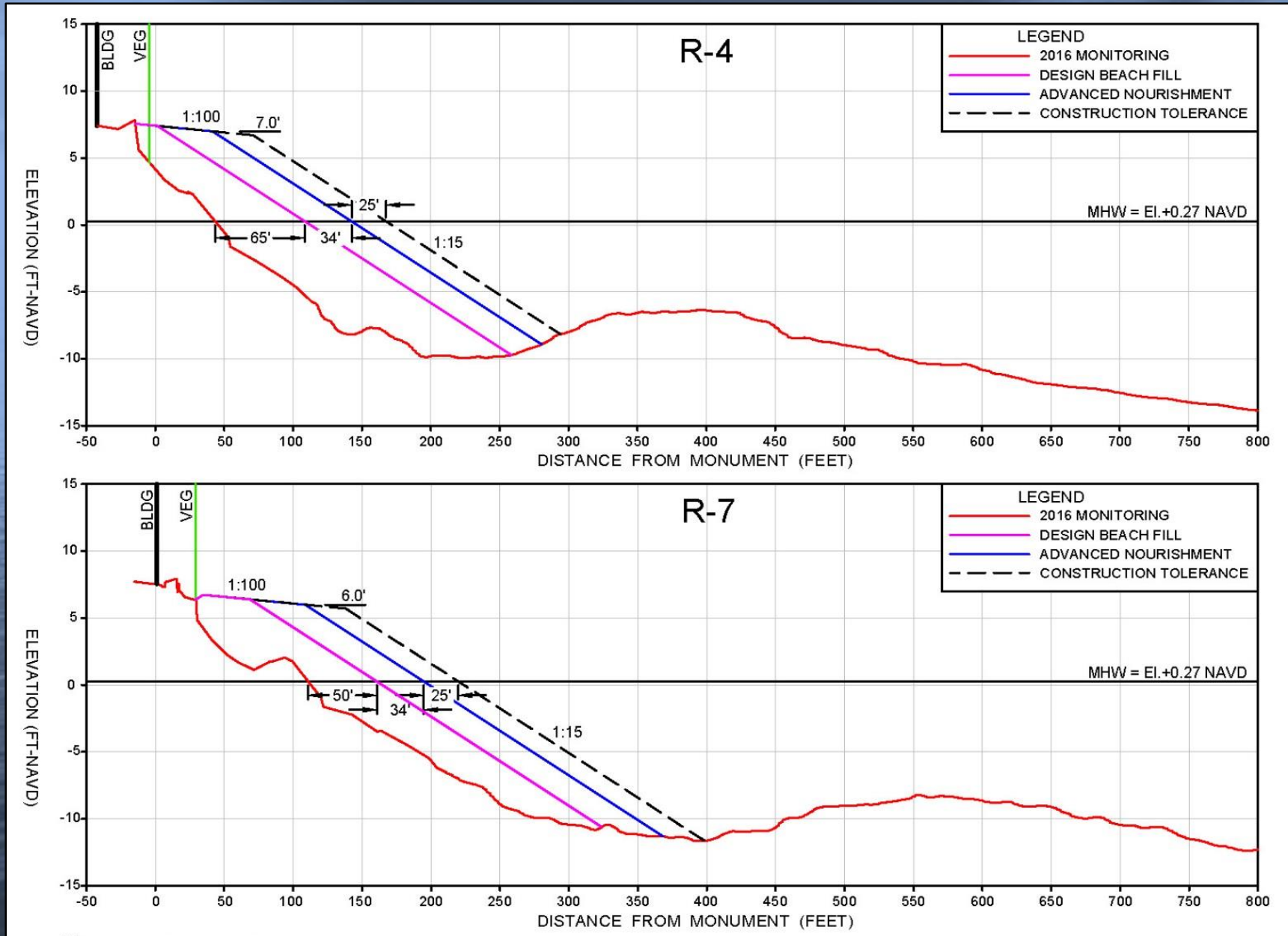
RECOMMENDED RESTORATION PLAN

- **Beach Fill Template**
 - Design Storm ~ 25-Year Return Interval
 - 50 ft Wide Design Template
 - 14 ft Wide for Advanced Nourishment (8-Yr Interval)
 - 20 ft Wide for Equilibrium Profile Adjustment
 - 15 ft of Additional Width along Existing Armoring
 - Total Beach Width = 99 ft (Armored), 84 ft (Unarmored)
 - Total Volume = 625,000 CY (> 55 CY/LF Avg Density)
 - For Permitting – Include 25 ft for Construction Tolerance
- **Nearshore Hardbottom Impacts**
 - Over 4 acres will be covered requiring mitigation
 - Construct artificial reef using native limestone

DESIGN PLAN



DESIGN TEMPLATES



PRELIMINARY OPINION OF PROBABLE PROJECT COST

- Elements (Expressed in 2019 Dollars)
 - Mobilization / Demobilization; Beach Fill; Mitigation
 - Design; Permitting; Monitoring; and O&M

Project Reach	Total Cost (10-Yrs)	Cost/Mile	Unit Cost W/O Mitigation)	Unit Cost W/ Mitigation
R1 - R11	\$23,170,000	\$9,500,000	\$25.10	\$37.10

- Charlotte linking one segment of existing project (South Beach Fill) with Manasota Key in 2019 – Eliminates one mobilization effort (~ \$5 Million Dollar Savings)

SCHEDULE

- Aug 2016: Notice to Proceed From County
- Fall 2016 – Spring 2017: Surveys, Hardbottom Analysis, Borrow Area Recon Level Search, Beach Fill Design
- Spring 2017: JCP Submittal
- Summer 2017 – Fall 2018: Permit Processing
- Spring – Fall 2018: Borrow Area Detailed Level Surveys, Final Design, Bid Process
- Winter 2018 – Summer 2019: Construction