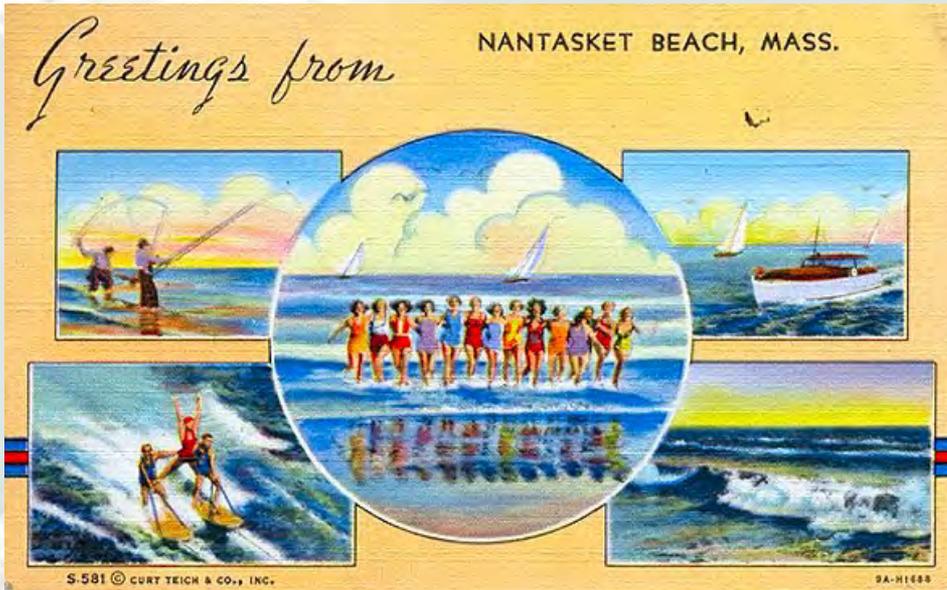


Nantasket Beach Reservation Master Plan



DCR Public Meeting

September 22, 2014 – 7:00-8:30 p.m.
Nantasket Beach Resort, 45 Hull Shore Drive



Commonwealth of Massachusetts

Governor

Deval L. Patrick

Energy and Environmental Secretary

Maeve Vallely Bartlett

Department of Conservation and Recreation Commissioner

John P. Murray



DCR Mission Statement

*To protect, promote and enhance our
common wealth of natural, cultural and
recreational resources
for the well-being of all.*

Purpose of Meeting

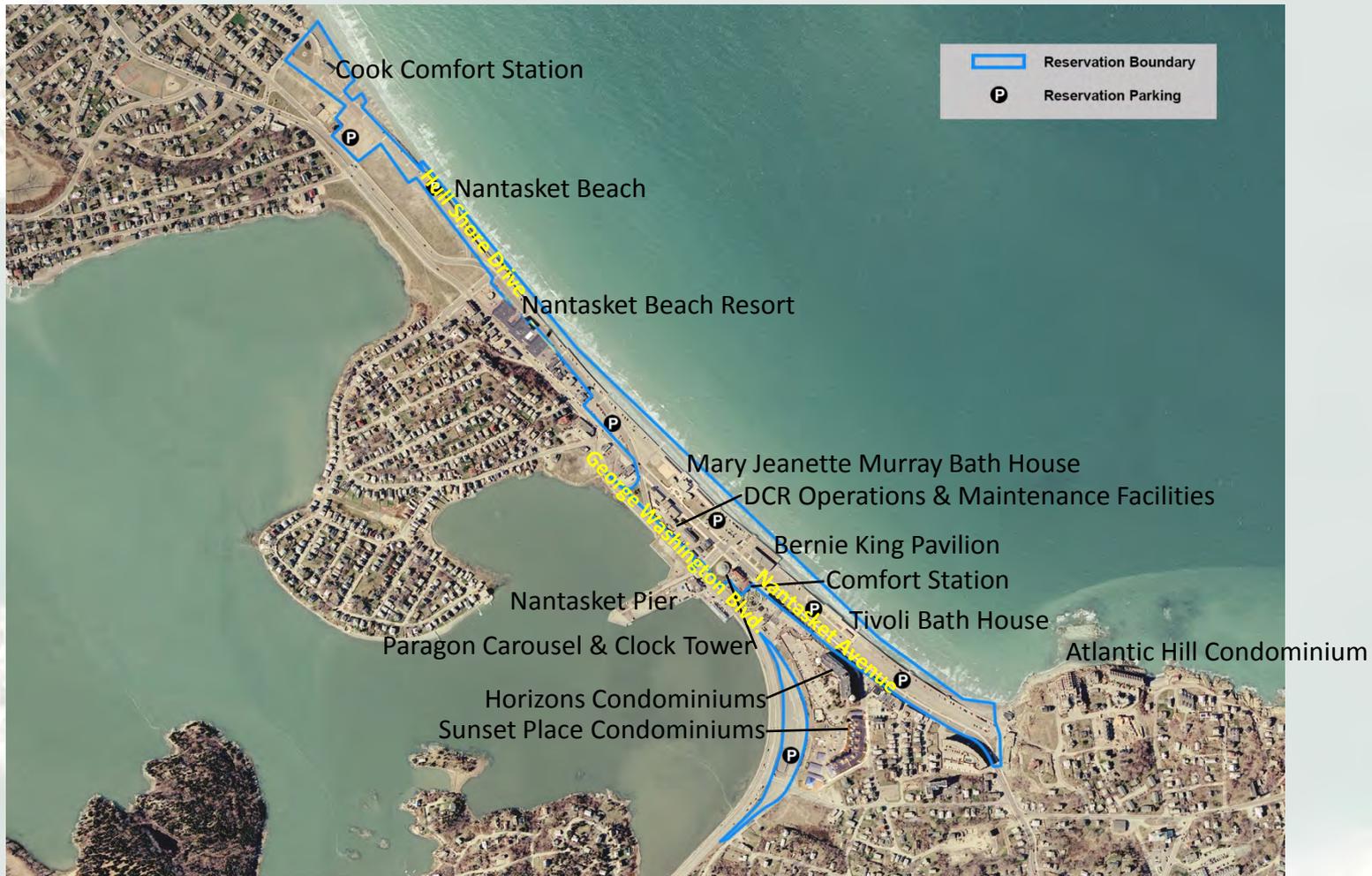
- As the culmination of the Master Planning Process, to present DCR's proposed Master Plan for the Nantasket Beach Reservation and to obtain feedback.

Nantasket Beach Reservation Master Plan

Hull, MA



Reservation Overview



- 26 Acres
- 1.3 miles of beachfront
- 35,200 annual passes/daily hangtags sold in 2013 (does not include seniors & HRA lots)

Nantasket Beach Reservation Master Plan



Master Plan for the landside facilities of the Reservation in conjunction with Seawall and Beach Accessway Improvement Project

Expenditures to Date: \$16,000,000

Progress to Date: Seawall Improvements



Progress to Date: Ramps and Stairs



Progress to Date: Sidewalks & Railings



Progress to Date: Reconstruction of Bernie King Pavilion





Progress to Date: Bath Houses



- Shade structures & playground at Mary Jeanette Murray Bath House
- Interior improvements at Mary Jeanette Murray Bath House, Tivoli Bath House & Cook Comfort Station



Master Plan Goals

Provide an enhanced natural and recreational experience at Nantasket Beach, with:

- attractive amenities to support a wide range of activities,
- safe and convenient access for pedestrians, cyclists, transit and ferry passengers and automobile users, and
- connections to adjacent bicycle paths and parking areas, as well as commercial and entertainment opportunities.





Public Process

MTG NO.	DATE	TOPIC		
		Seawall/Shore Protection Alternatives	Master Plan	Traffic/Civil Engineering (upland)
<i>Citizen Advisory Committee (CAC) Meetings</i>				
1	12 Oct. 2006	●	●	●
2	29 Nov. 2006	●	●	
3	31 Jan. 2007	●		
4	13 Jun. 2007	●	●	
5	15 Mar. 2008	●		
6	17 Nov. 2008		●	
7	1 Dec. 2008	●		
<i>Town of Hull – Board of Selectmen Meetings</i>				
1	14 Nov. 2006	●	●	●
2	24 Feb. 2009	●		
3	21 May 2013	●		
<i>Town of Hull – Master Plan Coordination Meetings</i>				
1	9 Jun. 2014		●	
2	24 Jun. 2014	●	●	
<i>Meetings with Executive Office of Energy and Environmental Affairs</i>				
1	4 Oct. 2006	●		
2	2 Nov. 2006	●		

2006 User Survey

- 99 out of 101 would come again
- 72% went swimming; most planned to later
- 91% came by car
- 16% from Quincy, 13% from Boston, 11% from Hull



User Survey: Suggested New Facilities

- Park/picnic areas
- Umbrella/chair rentals
- Recreational facilities
- More food
- More shops
- More bath houses & showers
- Water fountains

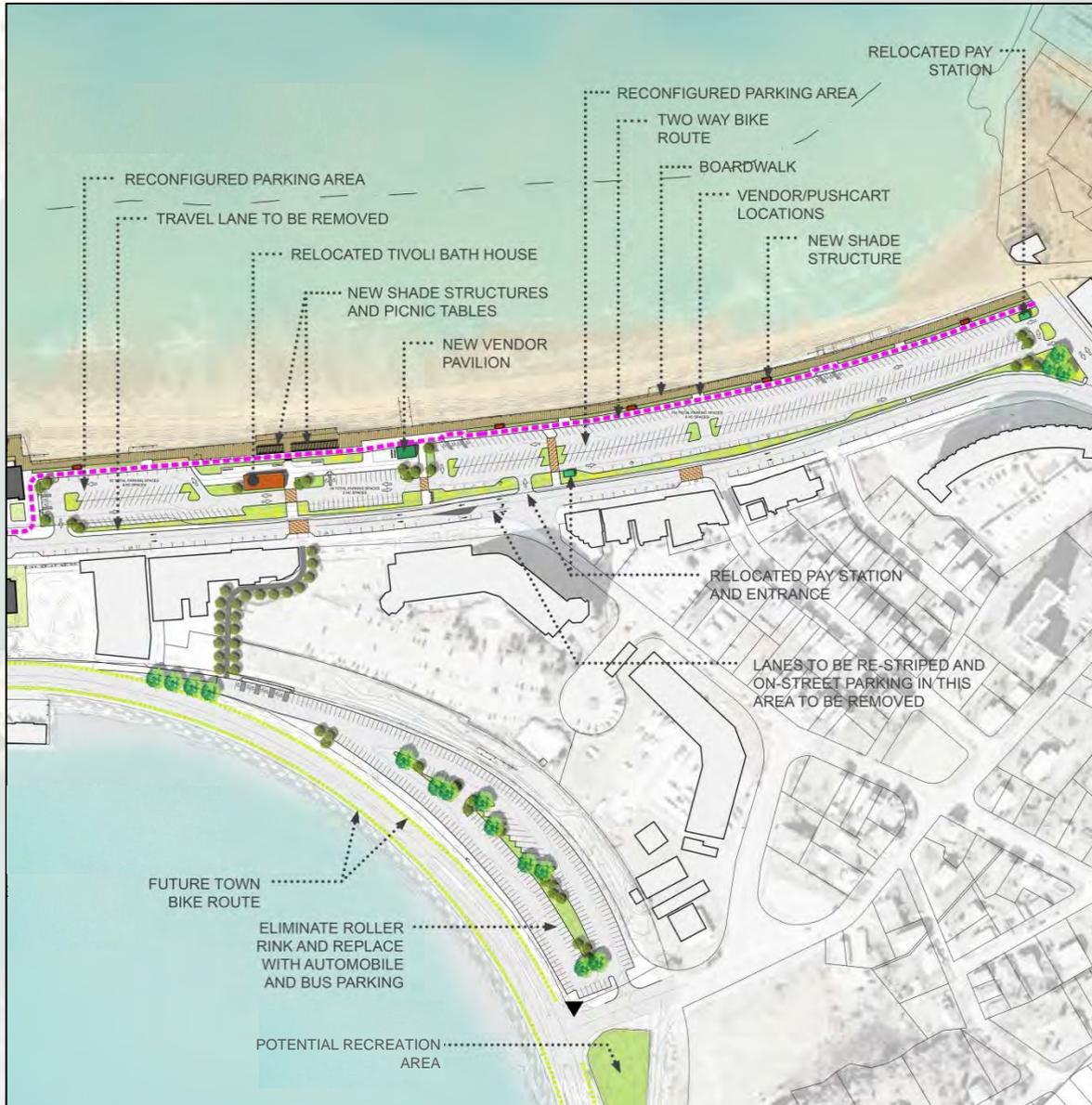


The Master Plan



- New open space: **1.53 acres** including 1.05 acre Nantasket Green
- Continuous boardwalk with shade shelters & vendor spaces: **2.68 acre** boardwalk
- Continuous bike lane: **1.3 miles**
- More protected locations for Cook Comfort Station & Tivoli Bath House
- Expanded playgrounds
- Improved plazas
- New landscaping: **1.39 acres**
- Improved operations & maintenance area
- Enhanced vehicular/pedestrian access & circulation & parking
- New interpretive opportunities
- Introduction of wayfinding & signage program
- Phasing

South Area

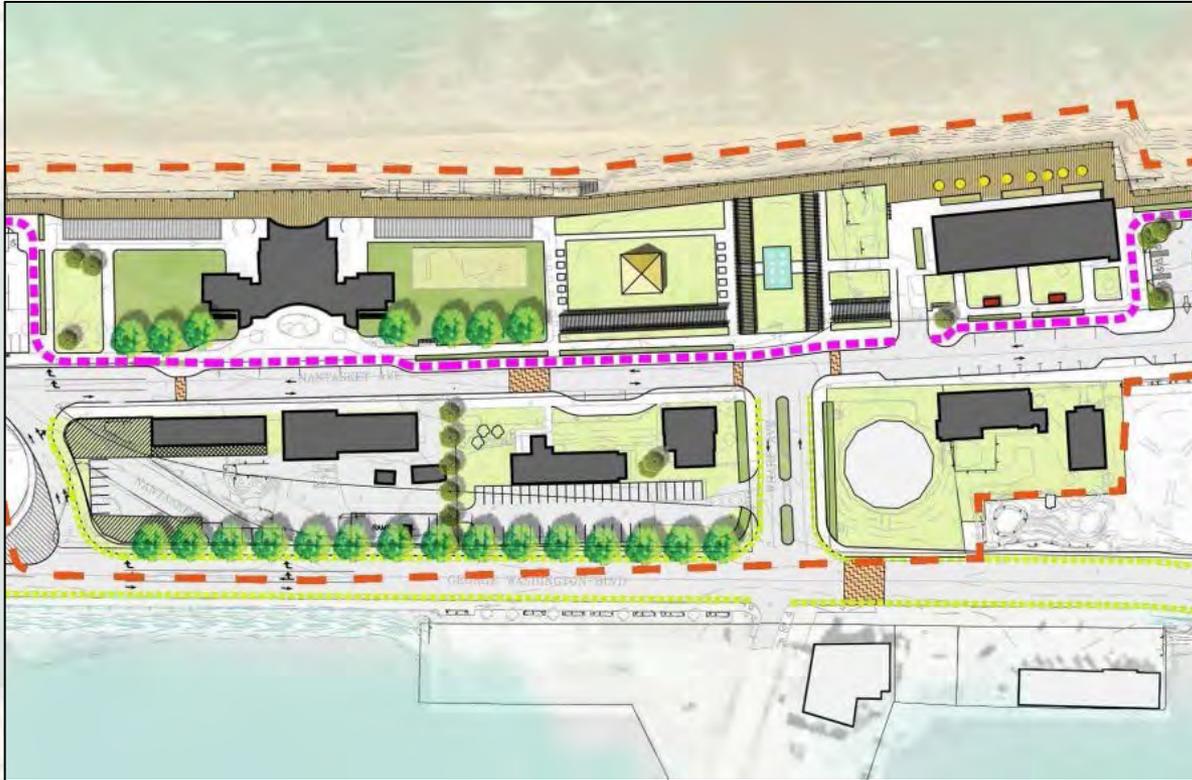


- Boardwalk & bike lane
- More protected location for Tivoli Bath House
- Reconfigured parking lots
- Pedestrian path from remote lot
- New shade structures & picnic tables
- New vendor pavilion

Boardwalk/Promenade



Central Area



- Boardwalk & bike lane
- Nantasket Green
- Expanded playground
- Improved plaza
- Improved transit stops
- Bike lanes on Wharf Avenue
- More attractive entry from Wharf Avenue

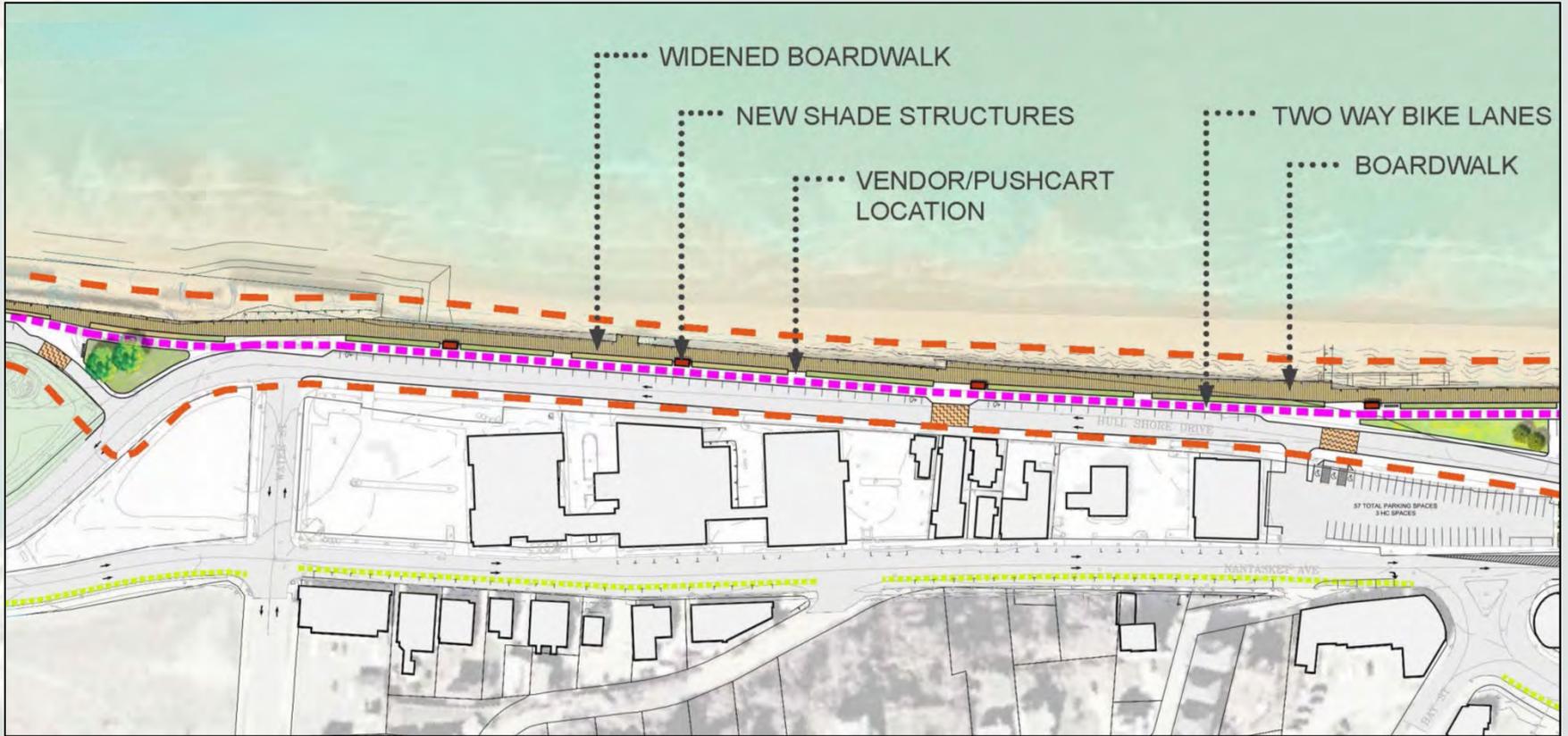
Nantasket Green



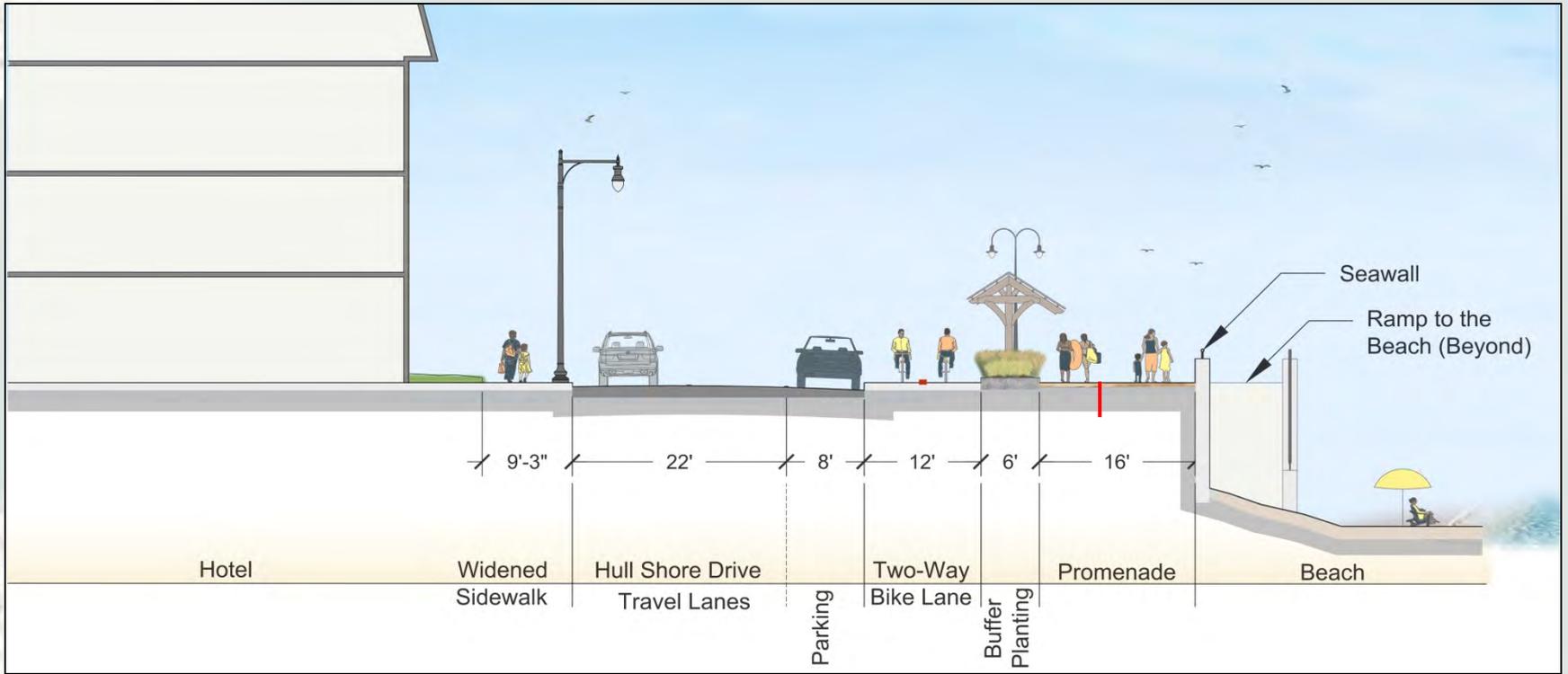
Promenade at Bernie King Pavilion



Water Street to Bay Street

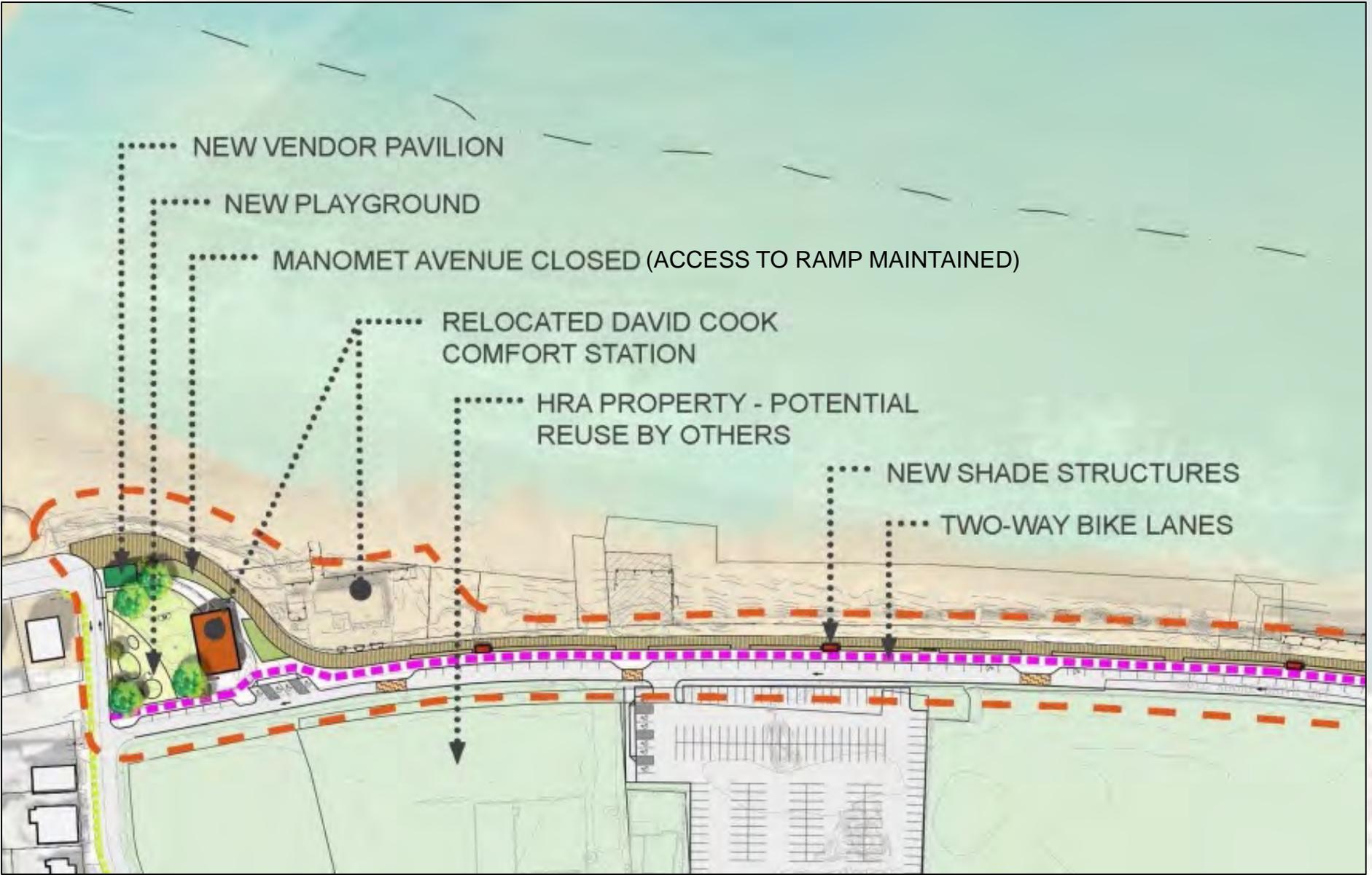


Water Street to Bay Street

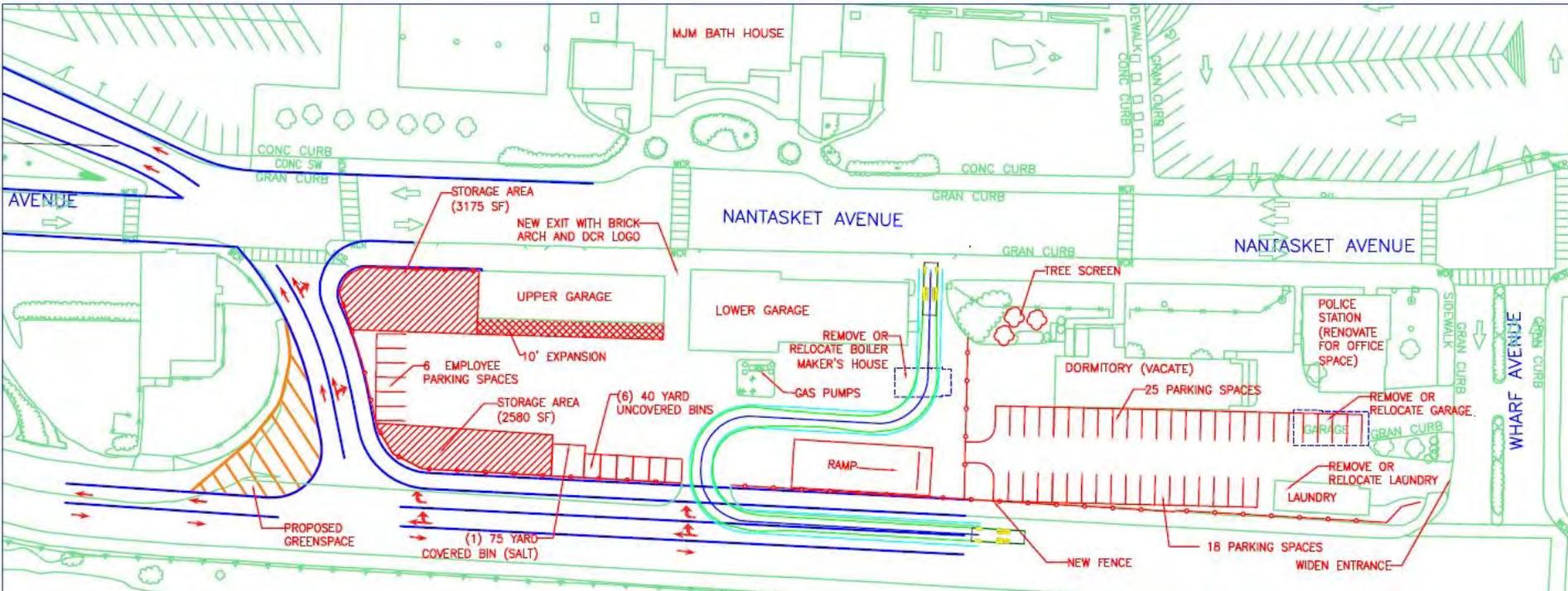


Existing 10' promenade shown with red line

North Area



Operations & Maintenance Area



- Expanded & more efficient Operations/Maintenance Yard
- Expanded Upper Garage to better accommodate vehicles
- Improved internal circulation
- Allows potential reuse/lease of Dormitory and Police Station Buildings & buffers them from operations/maintenance facilities

Reuse Options: Dormitory Building

- Could be used by DCR as a headquarters for the youth program Student Conservation Association:
 - first floor office space
 - second floor rooming for students participating in program.
- Could also be leased to another entity



Reuse Options: Police Station

- DCR Visitor's Center and/or office space.
- Leased to other entity



Reuse Options: Clocktower Building

- Current ice cream stand within the building would make a convenient permit sales location.
- Adjacent first floor area could serve as a Visitor's Center, office space, storage space, and/or a museum.
- Second floor better suited for office or storage space.



Transportation

- Pedestrian – improved pedestrian environment
- Bicycles – bicycle lane and racks, connection to George Washington Boulevard
- Transit – new transit stops/shelters, bus parking & better schedule coordination



Transportation: Vehicular



Parking



- Variable message signage, more efficient layouts, landscaping, opening of pedestrian link to remote lots, potential covered/solar power lot
- Existing: 1405 spaces
- Proposed: 1325 spaces with solar powered covered parking; 1365 spaces without solar powered covered parking (includes 10 bus spaces)



Phasing

Year	Activity	Description
0-2	Design / Construct	<ul style="list-style-type: none"> • Parking signage program • Bike lane striping on Wharf Avenue • Seawall stabilization north of MJM Bath House • Early improvements to operations/maintenance area & MJM Bath House
	Design	<ul style="list-style-type: none"> • Master Plan Improvements: Nantasket Green, Boardwalk, Open Space, Bike Lane, Bath Houses, Parking, Shade Structures, Nantasket Avenue
	Other	<ul style="list-style-type: none"> • Work with transit agencies to improve service & route timing
2-5	Construct	<ul style="list-style-type: none"> • Nantasket Green & other Improvements in Southern, Central & Water St. Areas
	Design / Construct	<ul style="list-style-type: none"> • Pedestrian link from George Washington Blvd. to Nantasket Ave. • Continue improvements to operations/maintenance area • Renovate/remodel MJM Bath House & Clocktower Bldgs. • Traffic Alternative • Expand operations/maintenance area
5-10	Construct	<ul style="list-style-type: none"> • Master Plan improvements north of Water Street • Nantasket Ave. & remote parking lot improvements
	Design/ Construct	<ul style="list-style-type: none"> • Renovate Police Station and Lower Garage • Expand Upper Garage
10-20	Construct	<ul style="list-style-type: none"> • Complete renovations to Upper Garage and Dormitory Buildings
10-30	Construct	<ul style="list-style-type: none"> • Beach renourishment

Future Stabilization Projects

- Installation of a stone revetment to stabilize the existing seawall segment from the Mary Jeanette Murray Bath House north to Water Street. (Fall 2015)
- Beach Renourishment



Shore Protection Studies

- Army Corps of Engineers Coastal Protection Alternative Analysis
 - Recommended Beach Nourishment from off shore source
- Louis Berger/Woods Hole Group Coastal Protection Alternative Analysis
 - Recommended toe protection for seawall stabilization and Beach Nourishment from off shore source
- Army Corps of Engineers Seawall Stabilization Alternative Analysis
 - Recommended toe protection for seawall stabilization

Technical Team Recommended Alternative Sand Renourishment with Toe Protection

Need for sand source for nourishment

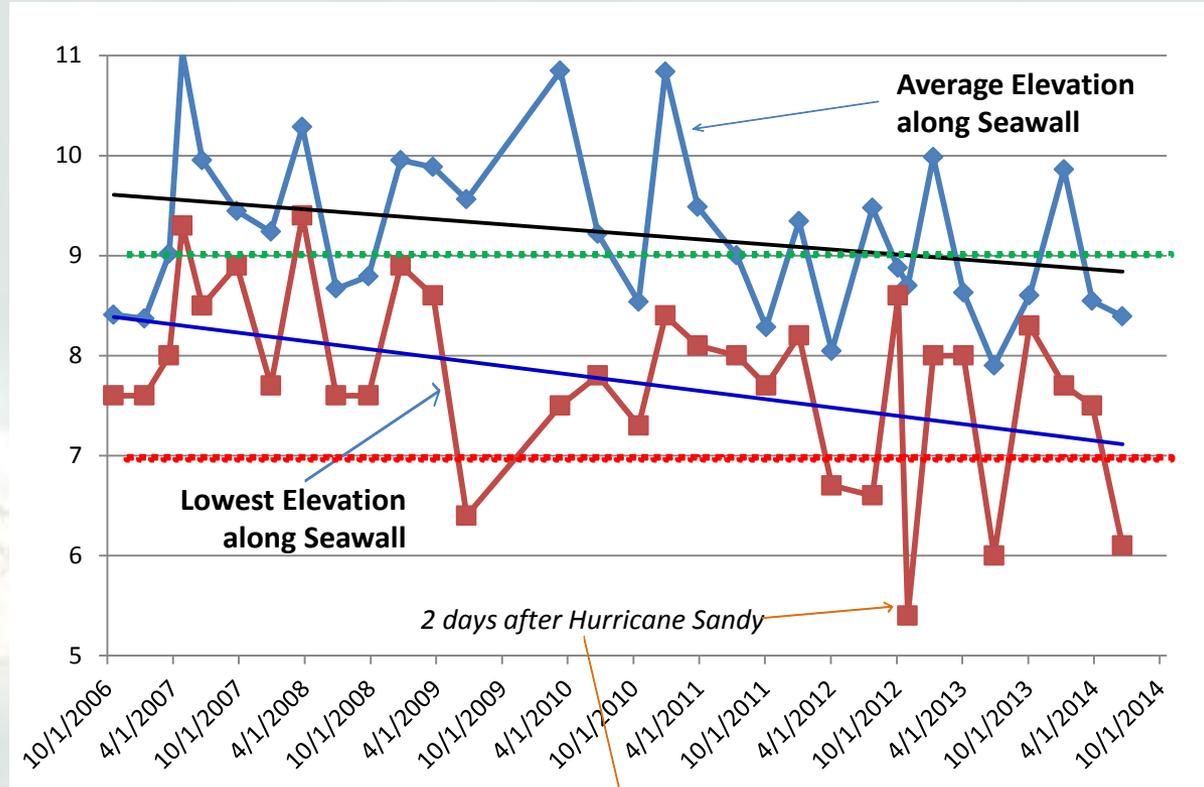
- All reasonable alternatives include nourishment
- Offshore sand source
 - Permitting timeline and concern relative to other failures in MA
- Upland sand source
 - Expensive, long construction time, and leaves Nantasket exposed until enough sand can provide adequate protection for the seawall.
- Any sand source leaves wall exposed over next years
 - Offshore source: Will take years to permit and get approval.
 - Upland sources: Will take years to construct.
 - In the Meantime: Seawall is exposed to storms. Without some sort of seawall fortification, the seawall will remain at risk for the next few years if sand nourishment alone is the solution.

Seawall Stability Analysis by USACE (Feb. 18, 2004)

“The stability analysis showed that the seawall’s condition is inadequate to resist the soil and water pressures behind the wall, ranging from a no-storm condition to a 100-year storm event. This instability of the seawall is caused by the lack of passive resistance resulting from the continued loss of sand in front of the seawall. The stability analysis also indicates, that to provide adequate passive resistance, sand fill to Elevation 7 feet is required for a no-storm condition and Elevation 9 feet for a 100-year storm event.”

Beach Elevation – Mid-Section of Seawall

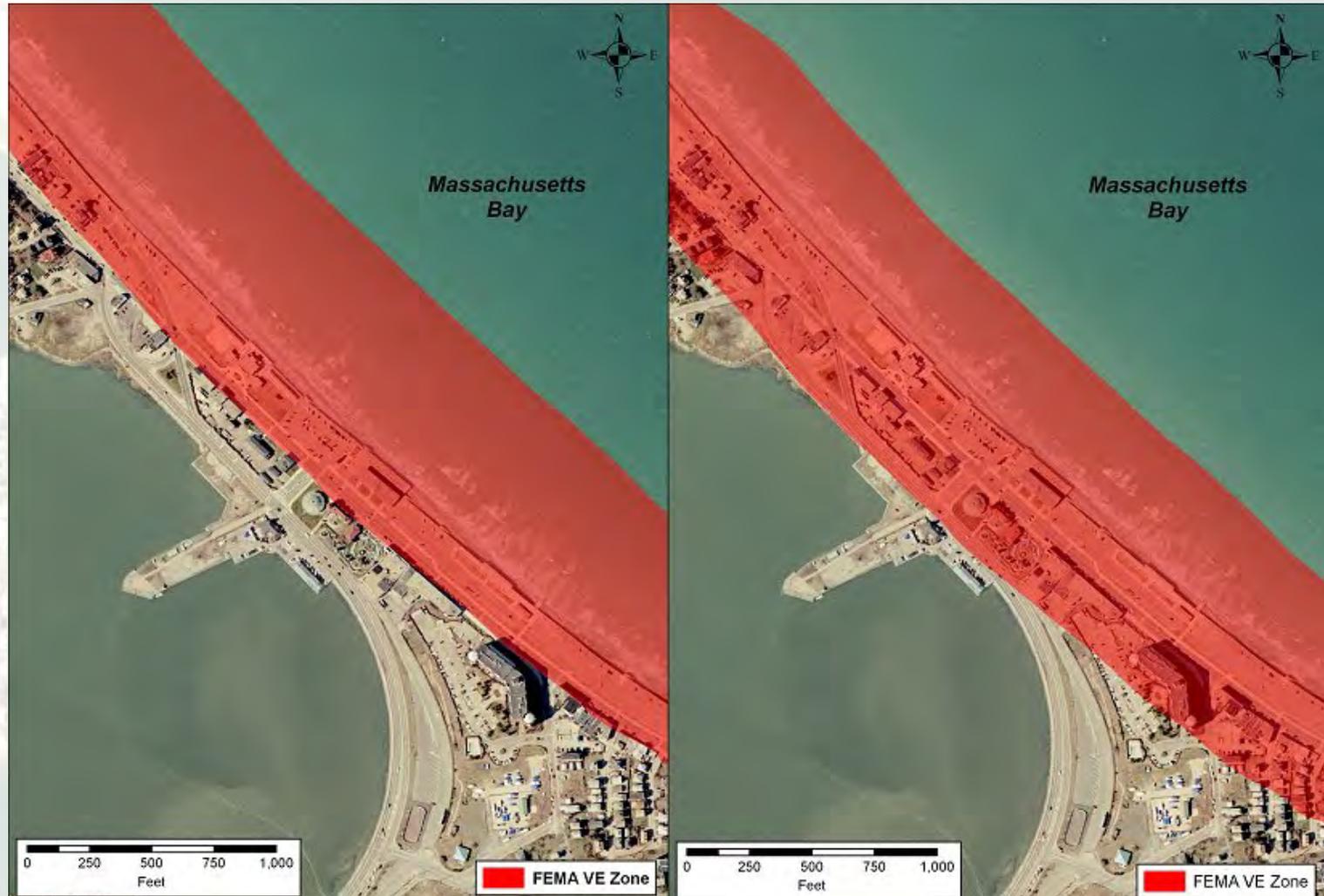
- Continuous quarterly monitoring since 2006
- Elevation of sand is highly variable
- Lowest beach elevation along seawall mid-section has decreased by one foot (on average) since 2006



9 ft
7 ft



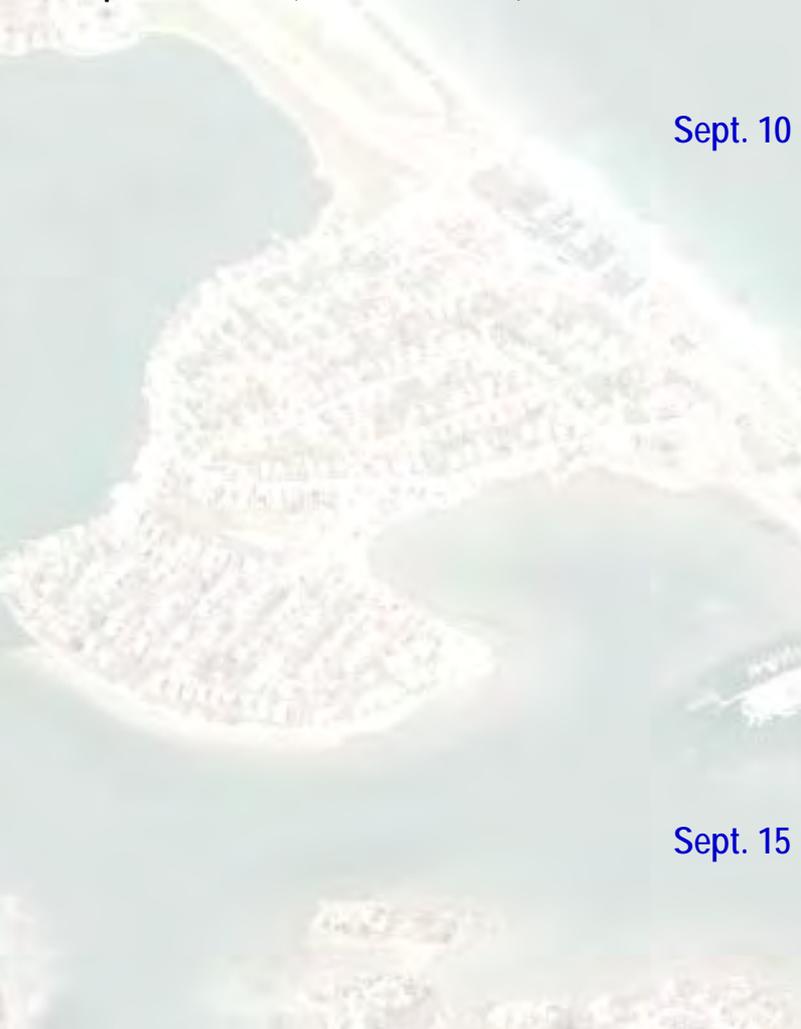
FEMA VE ZONE



Existing FEMA VE Flood Zone (left panel) and potential FEMA VE Flood Zone with the seawall collapse (right panel).

Galveston – Hurricane Ike

Sept. 12, 2008 (Source: USGS)



Sept. 10



September 10, 2008

Sept. 15



September 15, 2008

Galveston – Hurricane Ike

Sept. 12, 2008 (Source: USGS)

Sept. 9



September 15, 2008



Sept. 15

Toe Protection for Mid-section of Seawall

First Step for
Beach
Nourishment
with Sand

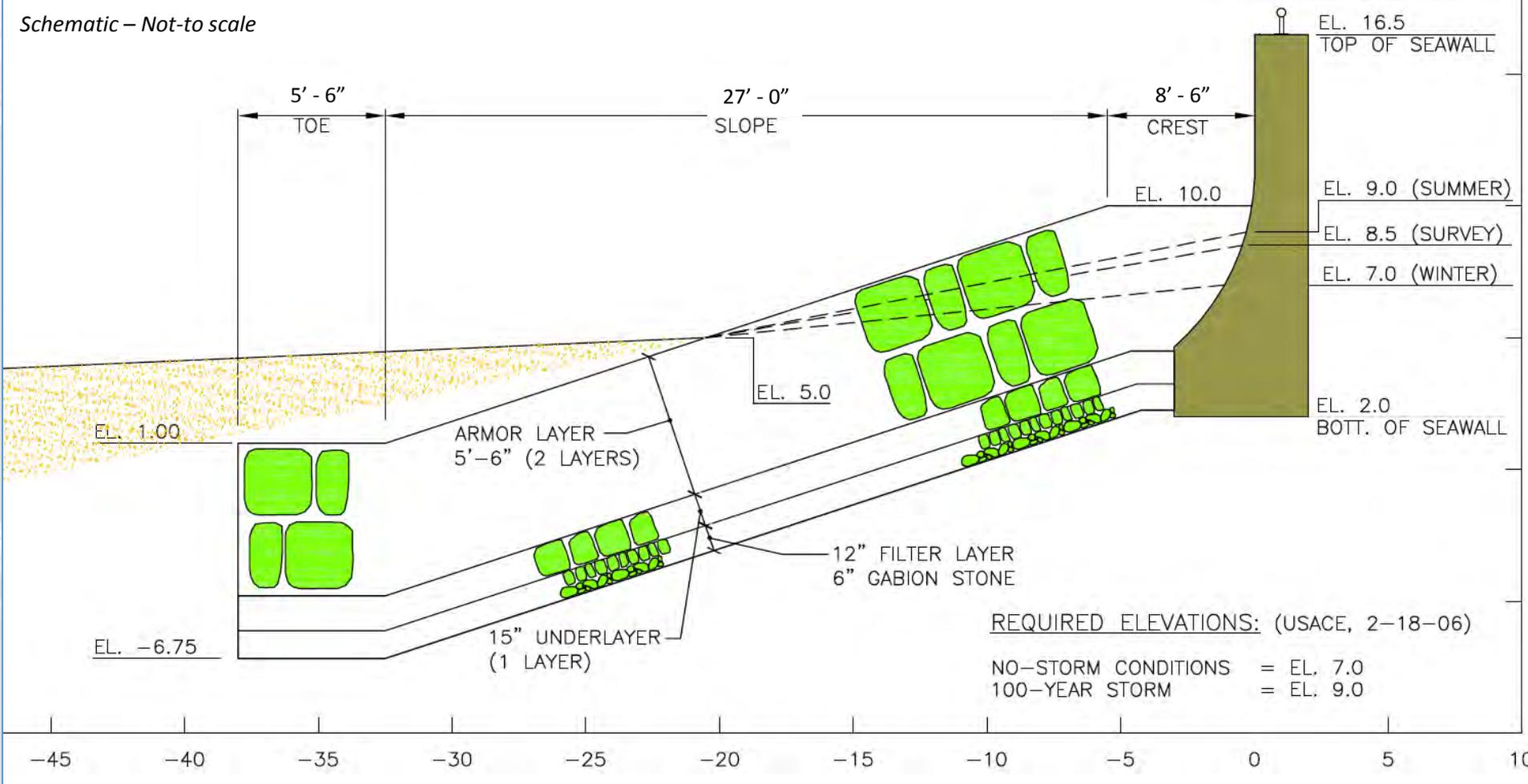
*(Preferred Alternative
for Shore Protection
following Alternatives
Analysis, 2006-2008)*



Existing Toe Protection in Southern Section of Seawall during Nor'easter in March 2010

Toe Protection for Mid-Section of Seawall Construction Planned for Fall 2015

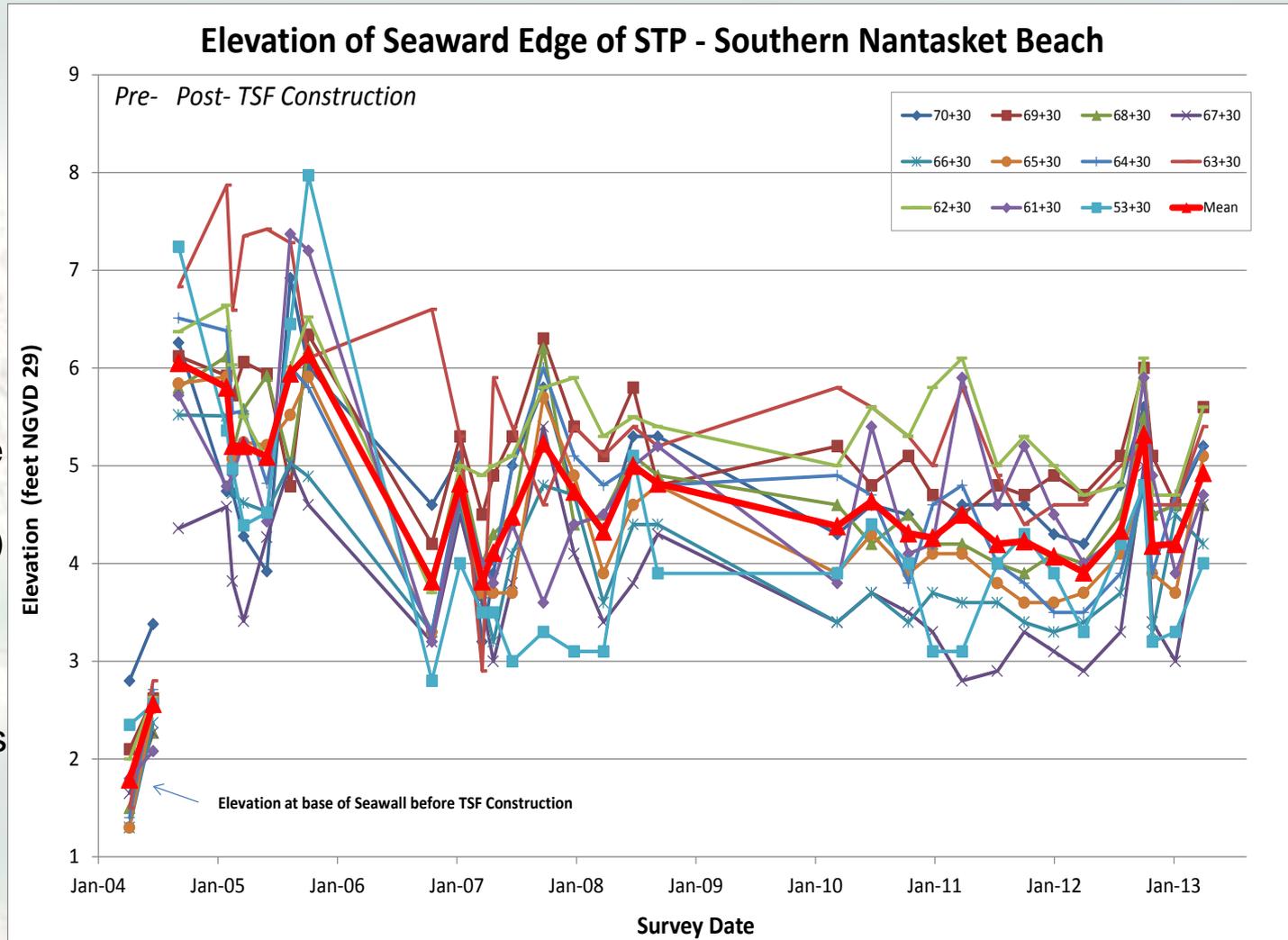
Schematic – Not-to scale



Previous stabilization solution was collaborative design between DCR, USACE, Town of Hull and their consultants

Beach Elevations – Southern Section of Seawall

- In December of 2003, beach erosion severely weakened southerly section of the seawall.
- Monitoring of beach elevations in front of the existing STP have remained relatively constant (on average) and much higher than before STP was built.
- Mean elevation of the 11 individual transects is shown in red.



Next Steps

- DCR will receive comments on the Master Plan until October 22, 2014
- Final will report will be prepared and released in December 2014.

Additional Information

For more information:

– Web: <http://www.mass.gov/eea/agencies/dcr/public-outreach/public-meetings/>

If you have comments:

Email: dcr.updates@state.ma.us, noting “Nantasket Beach Master Plan” in the subject line

Call: **617-626-4974**

Write: Department of Conservation and Recreation, Office of Public Outreach, 251 Causeway Street, Suite 600, Boston, MA 02114

Note: Public comments submitted to DCR by email or letter may be posted on the DCR website in their entirety, and no content, including personal information, will be redacted.

If you have questions or concerns or would like to be added to an email list to receive DCR general announcements:

Email: MassParks@state.ma.us

Call: **617-626-4973**



Additional Studies

- Nantasket Beach Seawall Repair and Reservation – Master Plan Services – Existing Infrastructure, The Louis Berger Group, Inc., 2007.
- Nantasket Beach Reservation Traffic Analysis Report, The Louis Berger Group, Inc., 2014.
- Nantasket Beach Reservation Facilities Utilization Report, The Louis Berger Group, Inc., 2014.
- Nantasket Beach Seawall Repair and Reservation Master Plan Services Coastal Engineering and Shore Protection Alternatives Assessment. Final Report. Woods Hole Group, Inc. and The Louis Berger Group, Inc., 2010.

Q&A/Discussion

