

The Living Shoreline Experience on Long Island, New York

Jay Tanski
New York Sea Grant
jjt3@Cornell.edu

Living Shoreline Workshop I
Avery Point , CT
January 9, 2015

*If the blind lead the blind,
both shall fall into the ditch*



New York Estuaries



South Shore Estuaries



Image © 2010 New York GIS
© 2010 Google

©2005 Google

Imagery Date: Feb 28, 2007

40°39'06.91" N 73°27'36.27" W elev 1 ft

Eye alt 4156 ft





Source: Newsday



Shore Armoring





Potential Impacts Of Shore Armoring

- Loss of Intertidal Habitat/
Wetlands
- Segmentation Of Habitat
- Change of Substrate
- Increased Nearshore Water
Depth
- Reduced Littoral Access

*Innovative Uses
of Breakwaters in
Coastal Erosion
Control:*

**Integrating Shoreline
Protection and
Estuarine Habitat
Enhancement**

A ONE DAY CONFERENCE

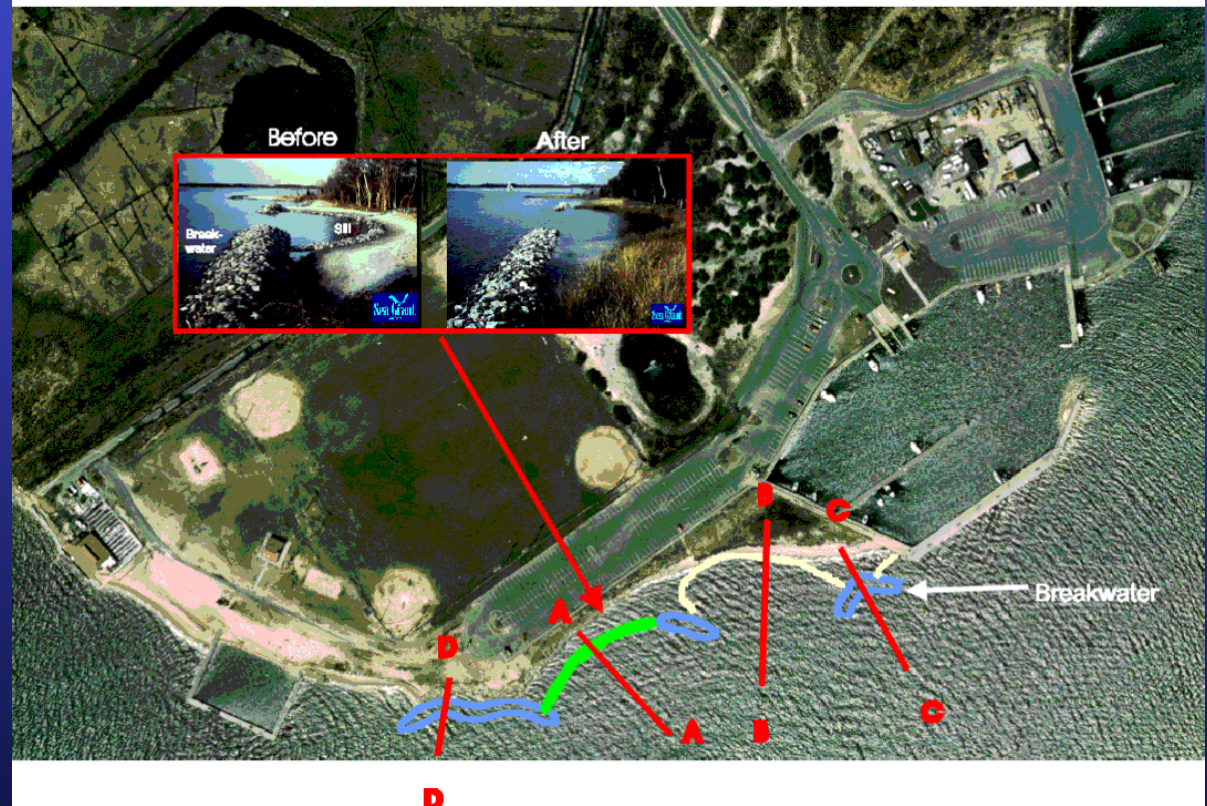
MARCH 29, 1996

**RONKONKOMA HOLIDAY INN
LONG ISLAND, NEW YORK**

Presented by
**New York
Sea Grant**

With funding from the:
**South Shore
Estuary Reserve Council***

East Islip Marina Conceptual Plan



Dalton Point Marsh/Breakwater Project

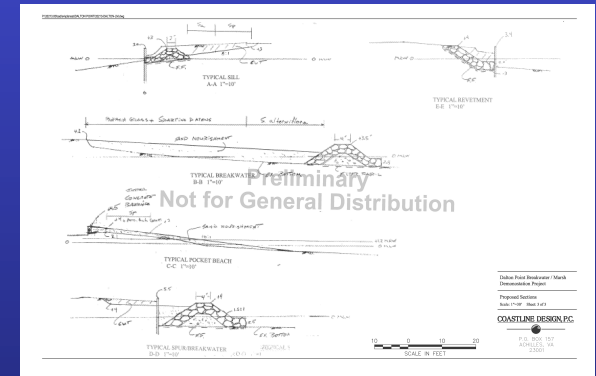
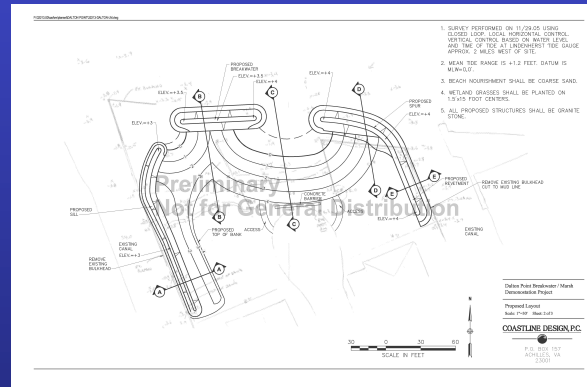
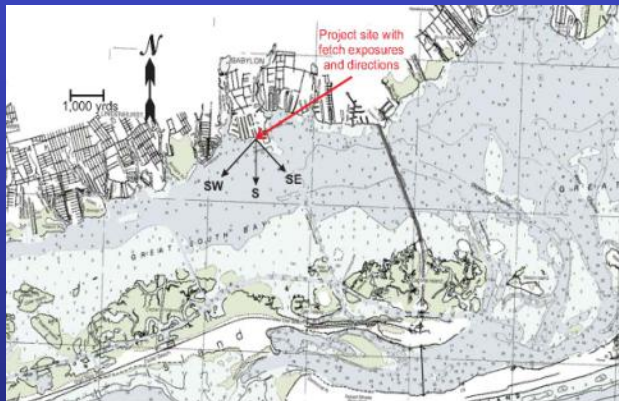


Figure 1. Location of project site.





New York State Sea Level Rise Task Force
Report to the Legislature



Draft for Public Comment

November 2010

“feasible soft-engineering techniques [living shorelines] should be evaluated in comparison with other structural and adaptation options to identify the combination of measures that will provide adequate safety for human uses and optimal environmental quality.”

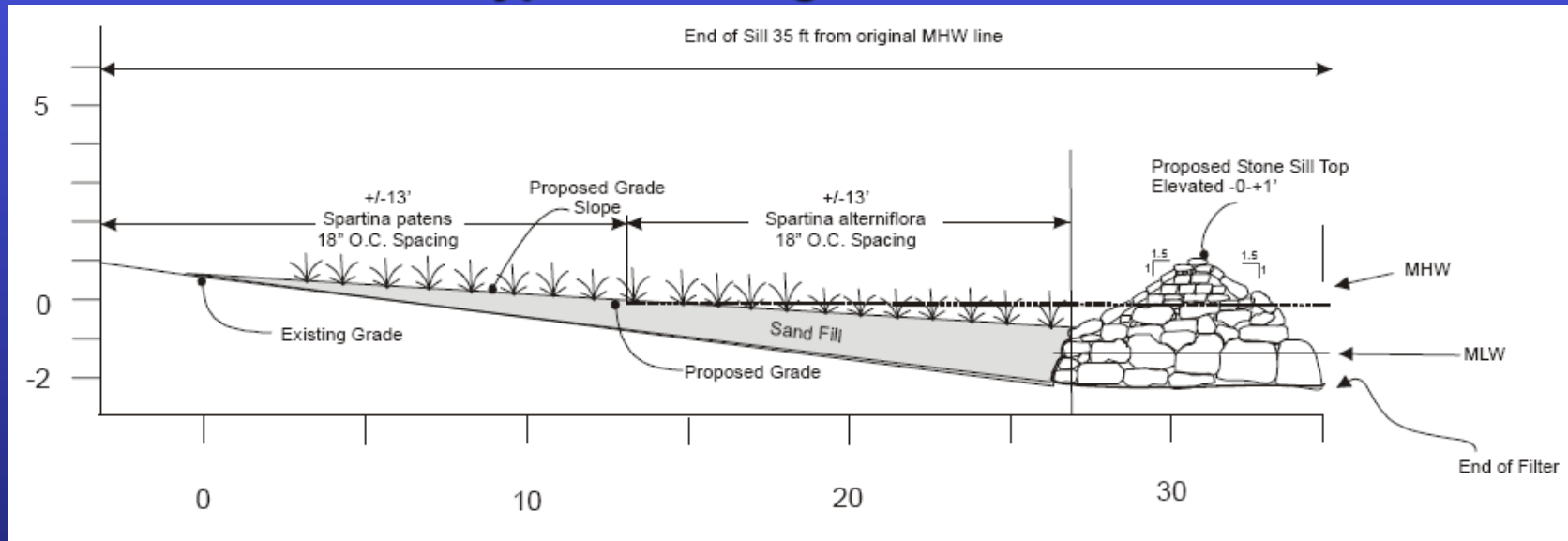
“Develop a comprehensive package of soft infrastructure investments to protect New York Harbor communities, including building living shorelines, new wetlands, oyster reefs, and small island archipelagos in shallow offshore areas and flood zones, where appropriate”.

NYS 2100 COMMISSION

Recommendations to Improve
the Strength and Resilience of
the Empire State's Infrastructure



Typical "Living Shoreline"

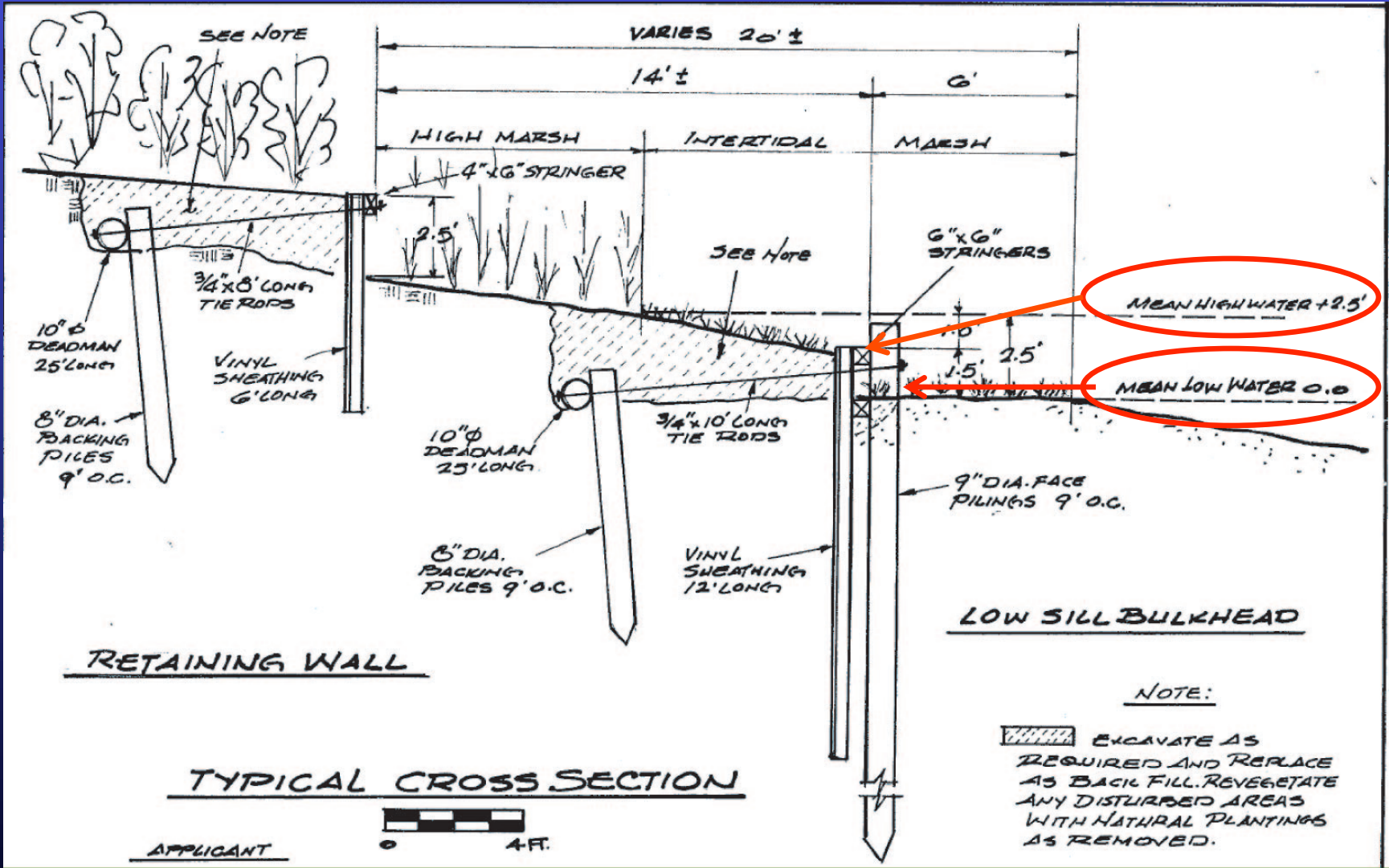


Low Sill Bulkhead/Marsh



State Tidal Wetlands Permit Program: Tidal Wetlands Land Use Guidelines

USES		AREA AND USE (permit) CATEGORIES		
		Fresh Marsh, Intertidal Marsh, High Marsh, Salt meadow	Coastal Shoals Bars and Flats, Littoral Zone	Adjacent Area
29	Construction of groins, bulkheads and other shoreline stabilization structures.	Presumptively Incompatible Permit Required	Generally Compatible Permit Required (minor project)	Generally Compatible Permit Required (minor project)
30	Filling.	Presumptively Incompatible Permit Required	Presumptively Incompatible Permit Required	Generally Compatible Permit Required (minor project)







Pre-Sandy



Post Sandy




New York Sea Grant Living Shorelines Workshop

May 15, 2013
Hauppauge, New York



Factors Limiting Use of Living Shoreline on Long Island

- **Permitting Issues Related To Encroaching on Designated Wetland Areas**
- **Only Recommended for Low to Moderate Energy Environments**
- **Primarily Used for Erosion, not Flood Protection**
- **Lack of Site Specific Shoreline/Coastal Processes Data for Siting and Design**
- **Limited to No Experience Designing/Building in NY**
- **No Standard Engineering Design Guidance**

 COPRI Living Shorelines Database

User login
Log In/Register

Navigation
○ About
○ Project Locations
○ Projects List

Project Locations



Map data ©2012 Google, INEGI - Terms of Use

An Institute of the American Society of Civil Engineers
Copyright © 2009 - 2012 | Privacy | Terms and Conditions

ASCE Database Information

- Location (Google Maps)
- Pre-Project Site Conditions
- Physical and Environmental Considerations
- Design Considerations
- Structural Elements
- Non-Structural Vegetation and Fill Elements
- Project Performance
- Reference, Photographs and Permitting Materials