

# Fortescue Quadrant Map: USGS Fortescue Quadrant, 169

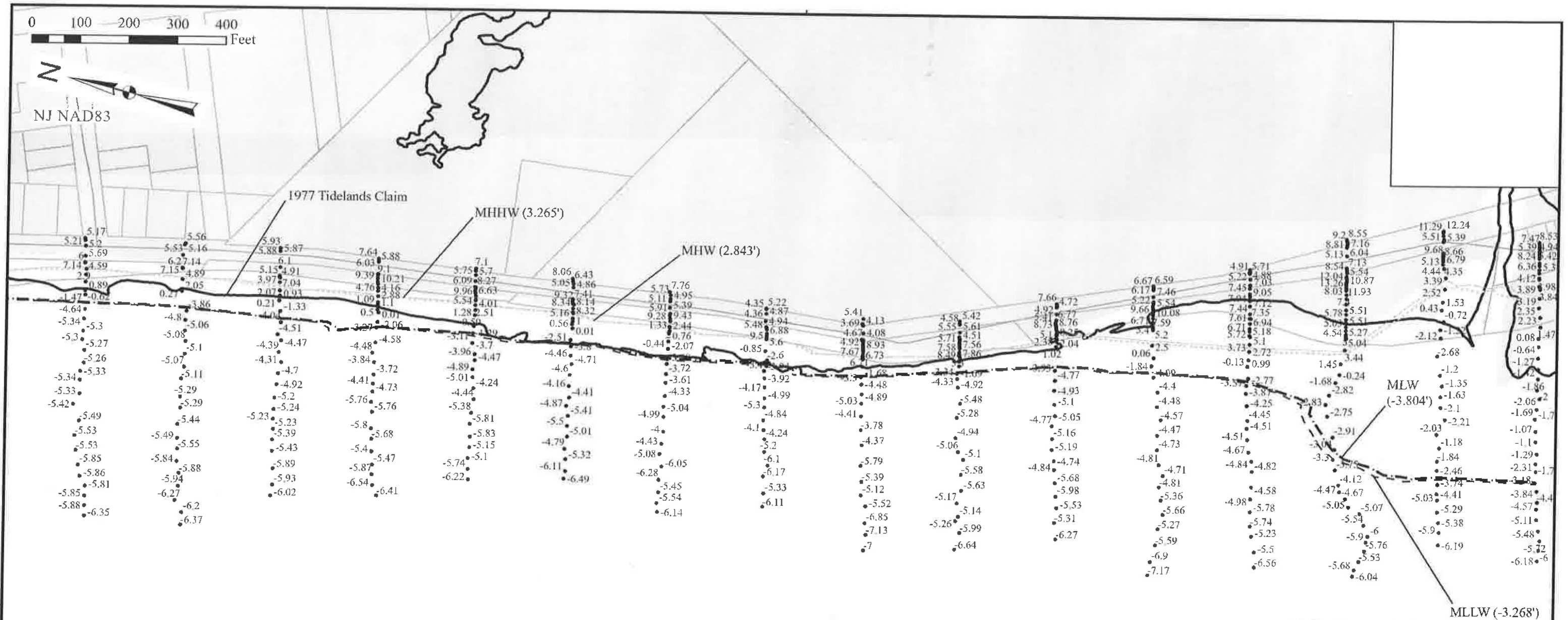


## Fortescue Project Extent:

Latitude: 39° 13' 59.89"

Longitude: -75° 10' 8.78"

The Cumberland parcels layer and roads layer were retrieved from the Office of Geographic Information Systems (OGIS).  
The USGS quadrant shapefile was obtained from ESRI.



**STOCKTON UNIVERSITY**  
**COASTAL RESEARCH CENTER**  
 30 WILSON AVE., PORT REPUBLIC, NJ 08241

American Littoral Society - Fortescue Restoration Project  
 Downe Township, Cumberland County, NJ

**DRAWN BY: M. Deibert Jr**  
**DATE: 12/10/2020**  
 Scale: 1" = 200'  
**SHEET 1 OF 1**

*Frank Venik*  
 Frank Venik RLS Date  
 NJPLS GS36255 12/23/20

\*This plan is intended for permitting use only\*

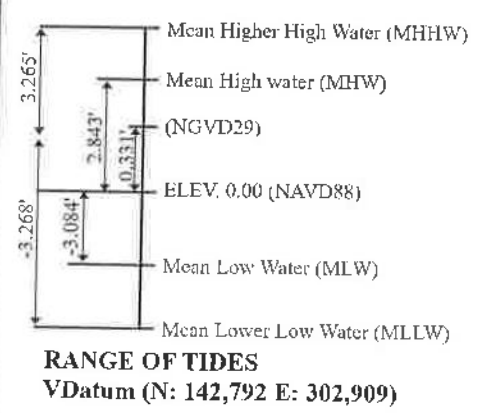
Elevations shown hereon are in US Survey Feet, NAVD88.

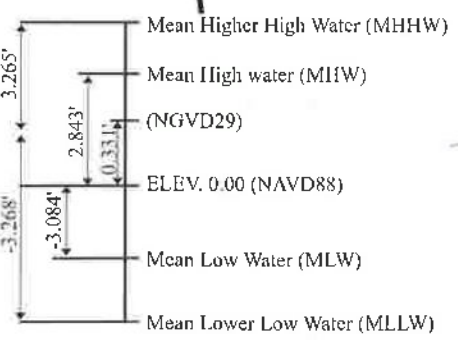
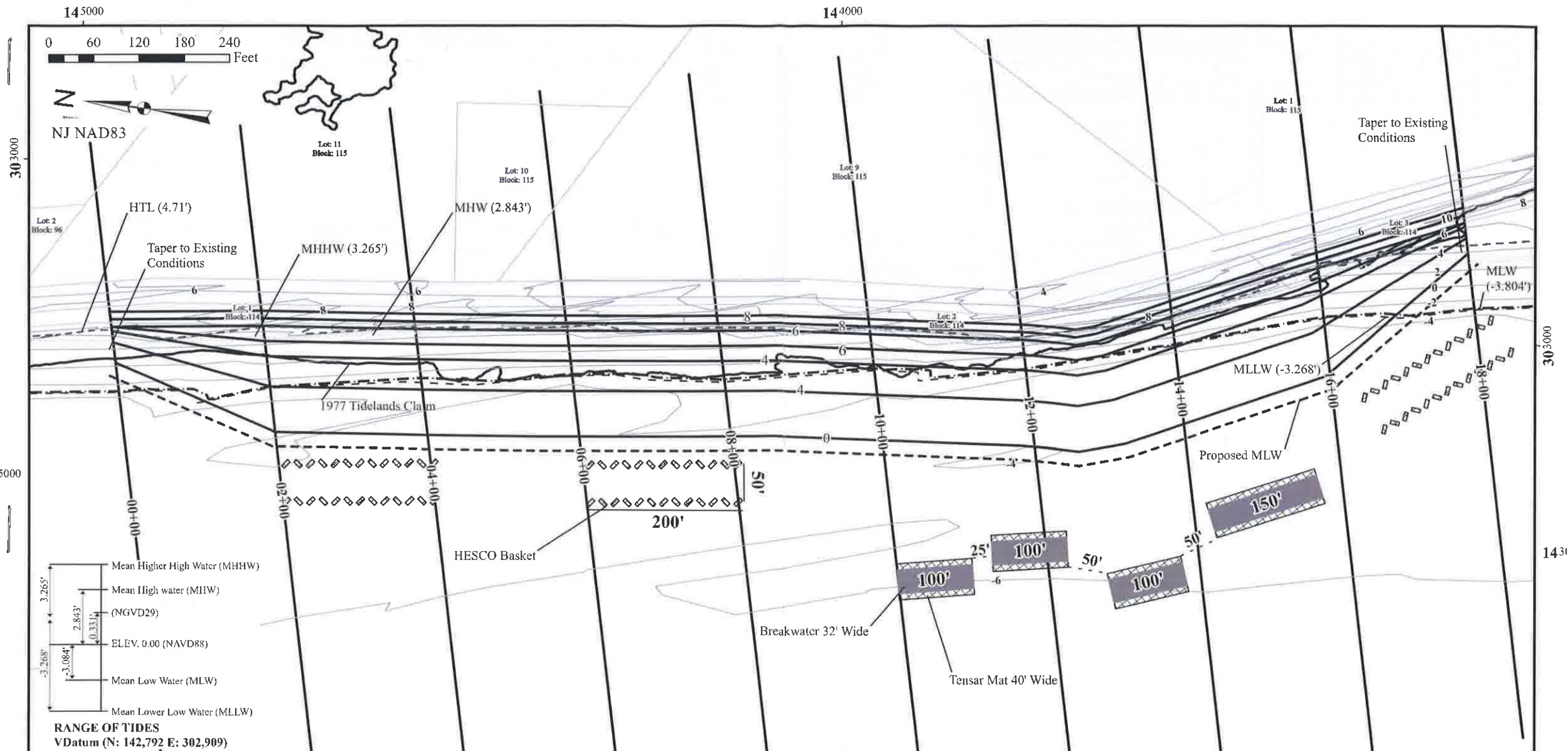
The Digital Elevation Model (DEM) was created from survey data collected by the Stockton University Coastal Research Center November, 2020.

Tide values are from NOAA VDatum. Channel configuration and layout were provided by Dr Stewart Farrell, PhD of Stockton University CRC.

Tidelands Claim Line and 2012 Land Use Land Cover were obtained from NJDEP.

Tax parcel information was obtained from the NJ Information Warehouse.





**RANGE OF TIDES**  
VDatum (N: 142,792 E: 302,909)

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*Jeffrey S. Richter*  
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06-22-2021	1" = 125'	1 of 3
DATE	SCALE	SHEET

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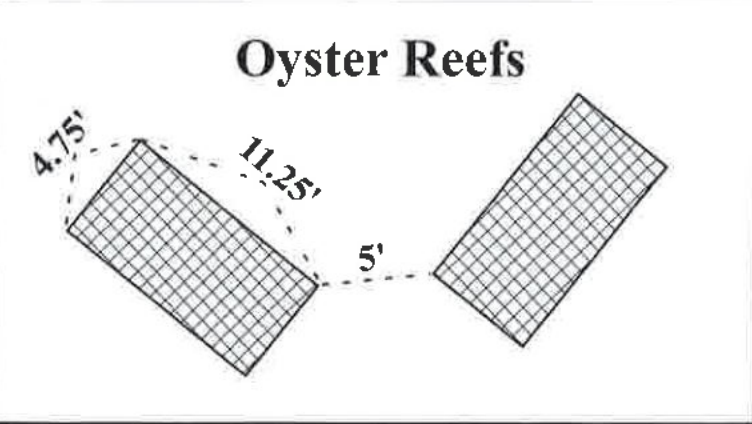
Elevations shown hereon are in US Survey Feet, NAVD88. The Digital Elevation Model (DEM) was created from survey data collected by the Stockton University Coastal Research Center November, 2020.

Hesco Basket may be exchanged for Shell Bags of similar configuration not to exceed 4 feet in height, 5 feet in width and 11.25 feet in length per unit.

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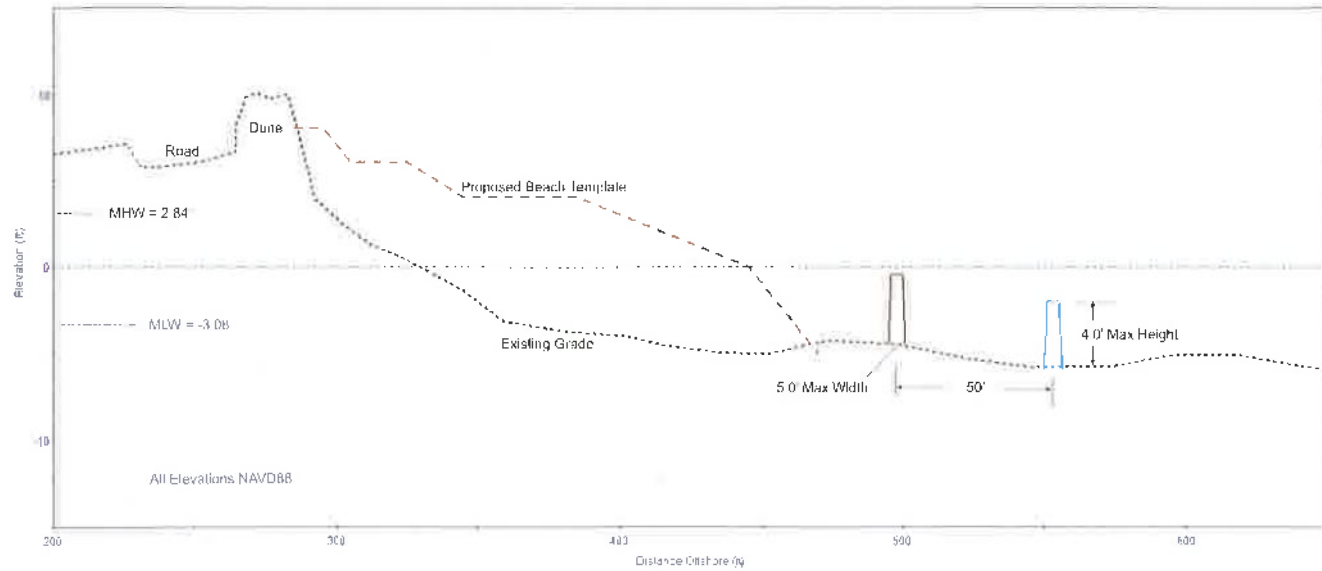
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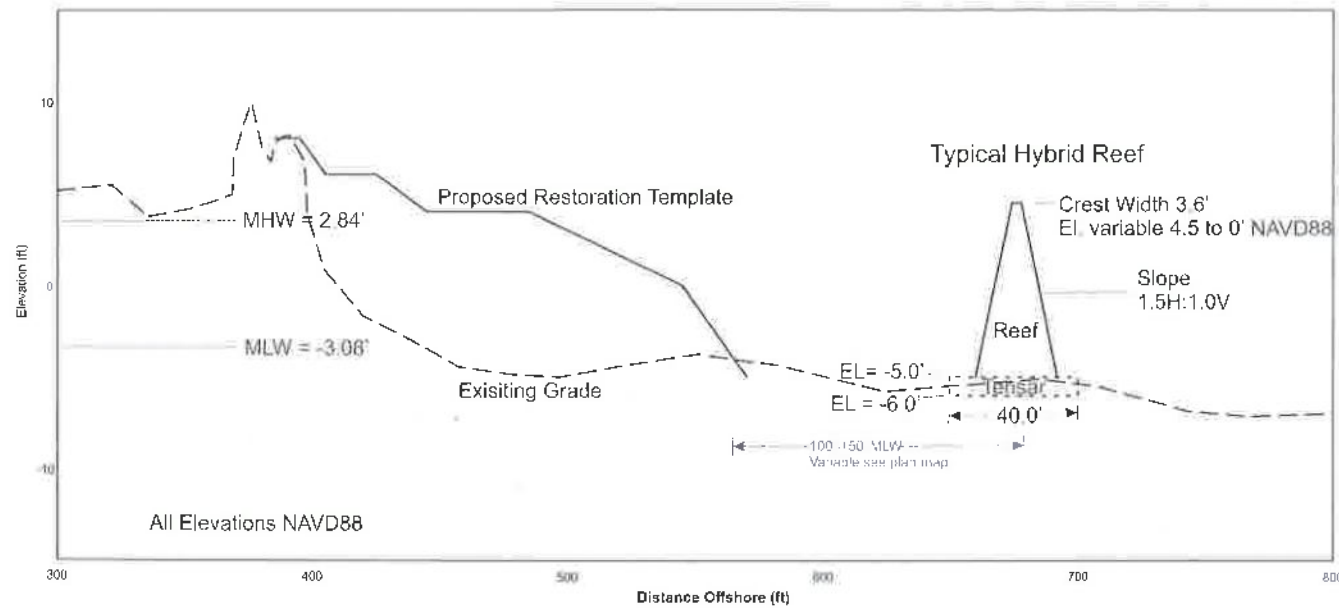
144000

143000

**Fortescue Beach - Shoreline Restoration Project**  
**Section 04+00 Typical Proposed Shell Reef Location**  
**Proposed Beach Template - Maximum Disturbance Limit**



**Fortescue Beach - Shoreline Restoration Project**  
**Proposed Beach Template - Maximum Disturbance Limit**  
**Section 12+00 Proposed Reef Location.**

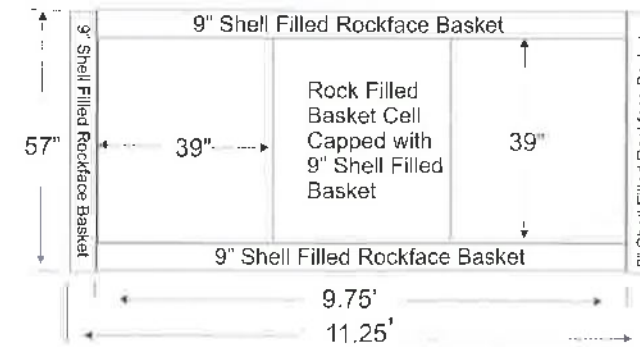


12+50 Existing 11/2020 Proposed Template 12+00 Proposed Reef Tensar Mat

**Hesco Baskets**

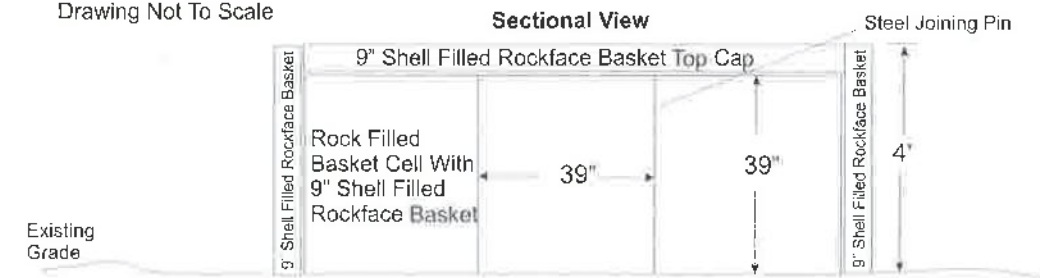
HESCO Baskets welded 3"x3" wire mesh with corrosion protection, with or without heavy-duty non-woven geotextile fabric, steel joining pins and plastic ties, basket/cell filled with shell.

**Plan View**

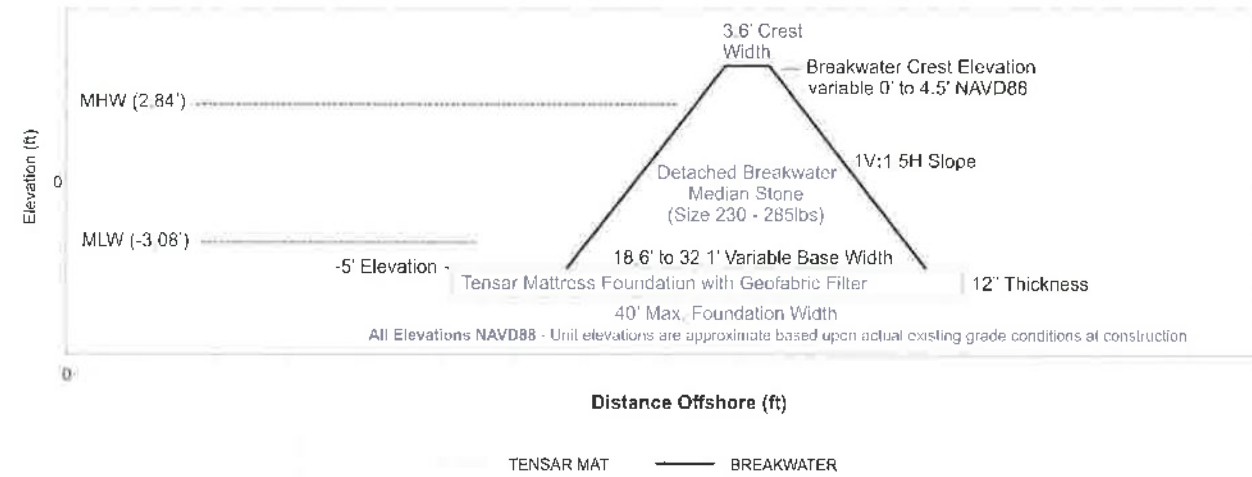


Drawing Not To Scale

**Sectional View**



**Fortescue South Beach**  
**Proposed Detached Nearshore Reef Breakwater**  
**Typical Cross Section**



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**Fortescue Restoration Project**  
**Downe Township, Cumberland County, NJ**

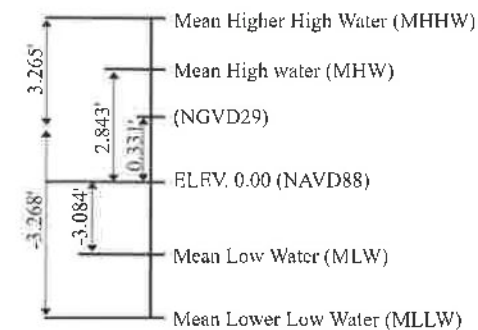
06-22-2021	1" = As Shown	2 of 3
DATE	SCALE	SHEET

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Hybrid reef elevation shown is maximum height. Elevations to vary below high tide line to mean tide line.

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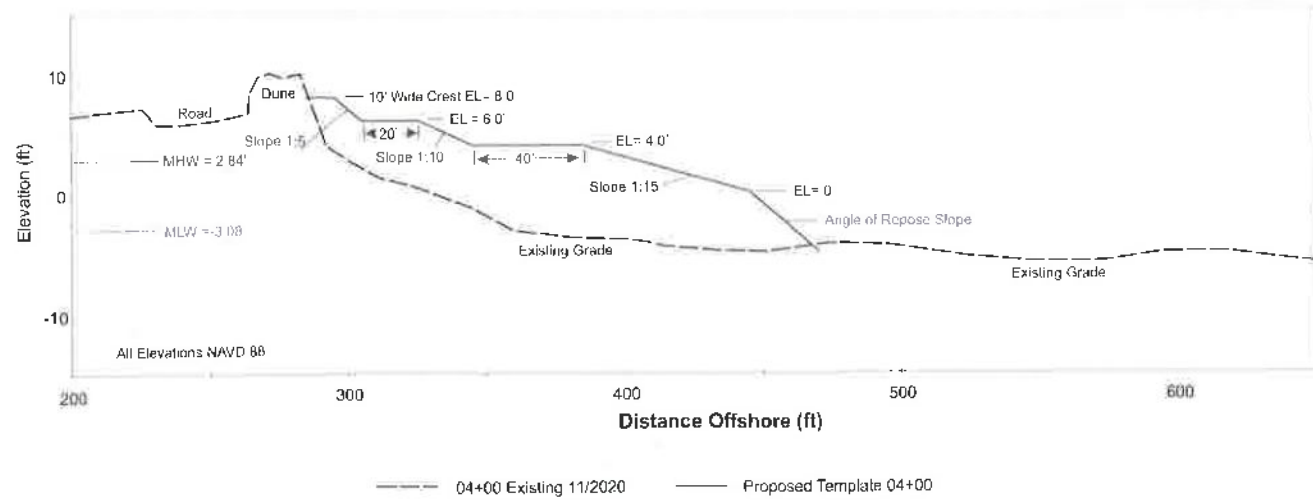
Typical Cross Sections drawn by Steve Hafner



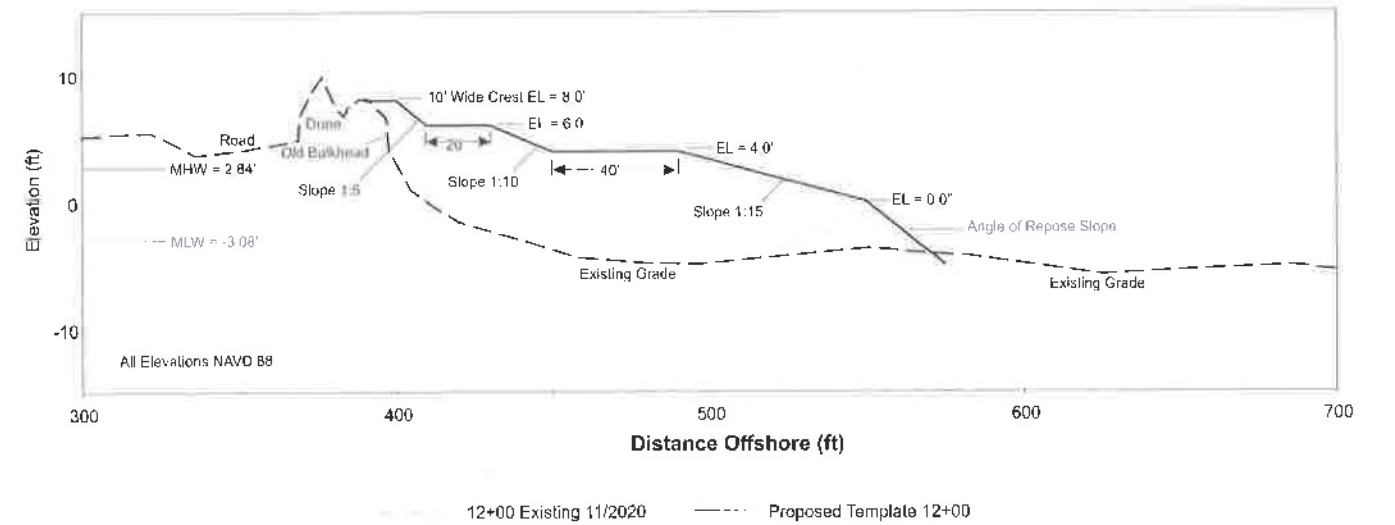
**RANGE OF TIDES**  
**VDatum (N: 142,792 E: 302,909)**

DRAWN: MRD CHECKED: SH

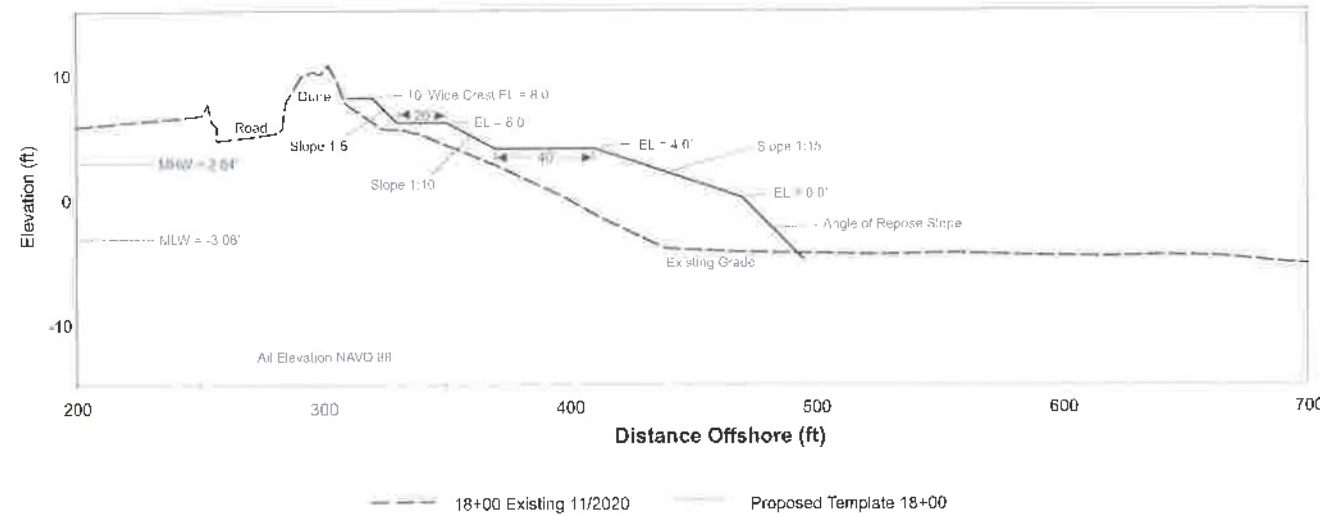
**Fortescue Beach - Shoreline Restoration Project**  
**Proposed Beach Template - Maximum Disturbance Limit**  
**Section 04+00 = 36.8 cu.yds./ft.; Shoreline = 116 ft.**



**Fortescue Beach - Shoreline Restoration Project**  
**Proposed Beach Template - Maximum Disturbance Limit**  
**Section 12+00 = 42.9 cu.yds./ft.; Shoreline = 140 ft.**



**Fortescue Beach - Shoreline Restoration Project**  
**Proposed Beach Template - Maximum Disturbance Limit**  
**Section 18+00 = 21.7 cu.yds./ft.; Shoreline = 72 ft.**



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**Fortescue Restoration Project**

**Typical Cross Sections**

**Downe Township, Cumberland County, NJ**

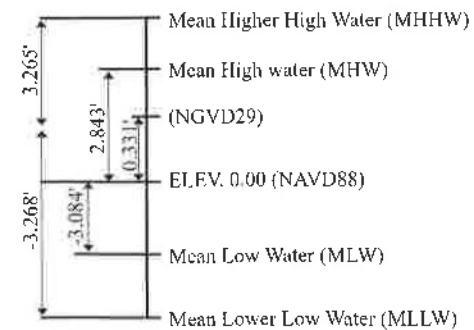
06-22-2021 1" = As Shown 3 of 3

DATE SCALE SHEET

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Typical Cross Sections drawn by Steve Hafner



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