

Review of Avalon North End Beaches

March 28, 2018

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Brief Summary of March, 2018 Storms

- Four nor'easters impacted coastal New Jersey from March 1st-March 31st, 2018.
- Most significant impacts on Avalon were during nor'easter #1 (March 1st-2nd) and nor'easter #4 (March 20th-21st).
- Nor'easter #1 produced wind gusts of 70mph, with a persistent erosional wind for 72 hours.
- Nor'easter #4 produced wind gusts of 50mph, and exacerbated erosional issues on north end beaches. Problem area remains from 9th Street south to 14th Street.

Impact on Beachfront Nor'easter #1



This is Avalon's beachfront with a view from 30th Street looking north taken on Monday, March 5th. Evidence of salt hay on the beach approaching the dunes and evidence that the beachfront from 30th Street north through the 20s did not suffer a significant impact during the storm.



This view is from 11th Street looking south, the most severe erosion area. Sand fence is nearly compromised with salt hay to the dunes, also taken Monday, March 5th. Ironically, significant erosion occurred from late Saturday through Monday morning when the weather effects of the storm had passed.

Impact on Beachfront Nor'easter #4

As visually inspected by Scott on Sunday, March 18th, there was some accretion of sand in the north end due to the recommendation by Dr. Stewart Farrell to leave the salt hay on the beach as it creates clusters of sand piles



Avalon's 11th Street beach during storm event Wednesday, March 21st. Strong wind and wave action brought the surf closer to the dunes with salt hay deposited at the toe of the dunes.



Avalon's 10th Street beach looking south through erosion zone taken Thursday, March 22nd. Wave action clipped the toe of the dune and damaged some sand face that was installed. Wrack line appears to be beyond the toe of the dune.

Where Did the Sand Go?

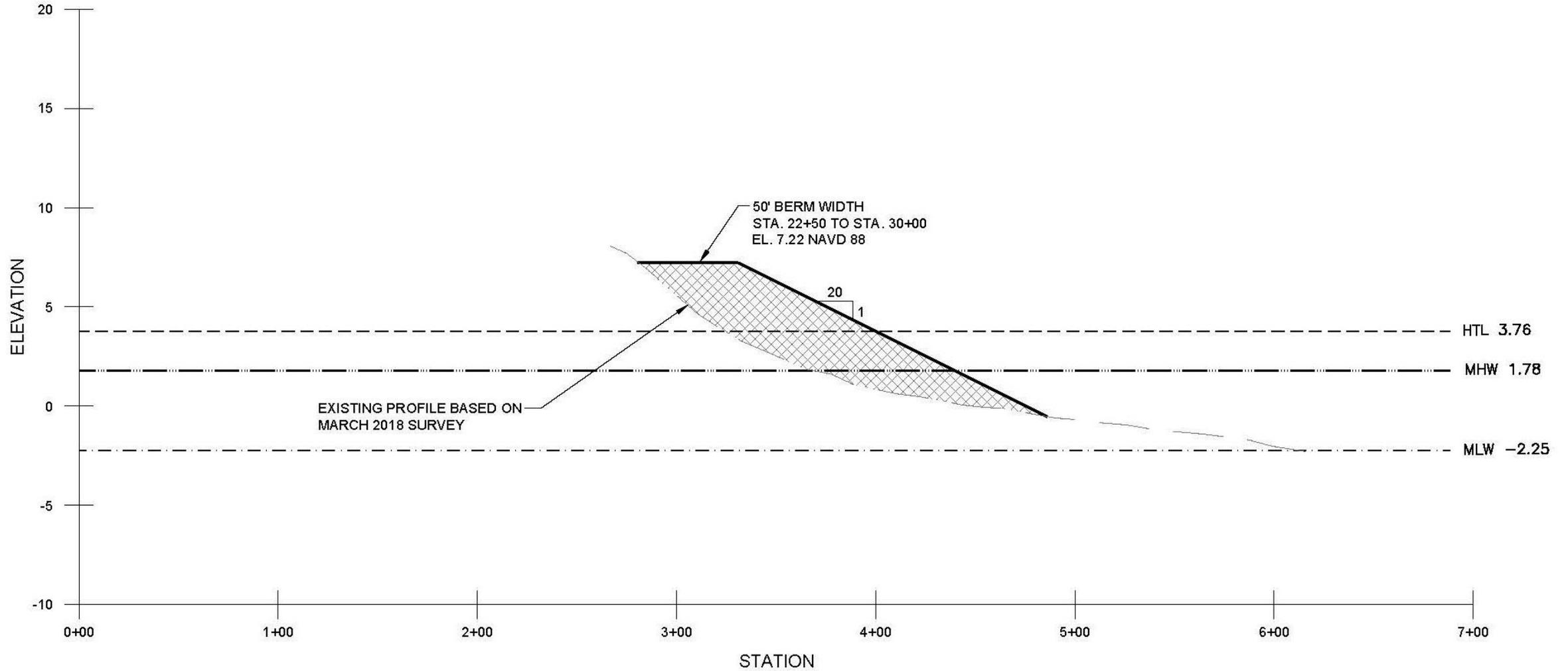


A large amount of sand transported to the borrow area. The photo (left) taken Monday, March 26th and shows a bird on a sandbar at 35th Street. A large sandbar formed after Nor'easter #1 that used to be the north end beach fill project.

Evidence of the large gully forming on the beaches near the north borrow area absent of any backpassing activity since June, 2016.



Typical Fill Area Profile/Backpassing



TYPICAL FILL AREA PROFILE