

The above "Transect 2" is taken from the Amtrak construction permit approved by state and federal agencies. It is highlighted here in yellow to show the relative location and elevation of the reconstructed Overlook walkway. Note the location of the original walkway and rail road.

Notice that the existing tracks are at a lower elevation than are the new tracks, which themselves are approximately 10 feet higher than the Overlook at this particular location at Station 91+00 along the reconstructed rail road. That Station, indicated on the aerial photograph below-right, is immediately east of the aerial photograph shown on Pages 2-3. The new beach at this location is expected to be approximately 70 feet wide between the Mean Low Water mark and the seawall along which the Overlook walkway will run. This dimensions is shown on the cross section of Station 91+00 seen above.

**T-Wall Construction**

The T-Wall retaining wall system provides an architectural finish to the wall which forms a backdrop along the northern side of the Overlook (see the cross section above), which comprises a total of 13,906 square feet of wall surface. This area would receive the texture treatment. The process adds about 1.75 " to the surface of the underlying structural concrete and will look identical to the photograph of Ashlar Stone seen above right.

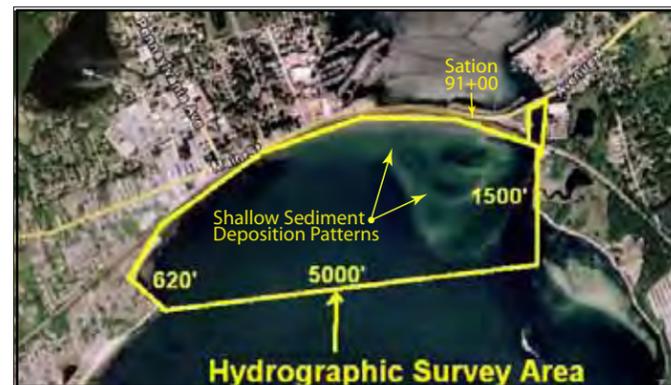
The cost of the T-Wall Ashlar Stone surface for this project will be \$85,000.



**Ashlar Stone T-Wall**

**Hydrographic Survey Area**

The aerial photograph below illustrates the study area being surveyed by Amtrak to record changes in bathymetry (i.e. underwater topography) that pertains to construction of the groin, placement and distribution of sediments, and consequent beach formation. It is used here to locate Station 91+00 and to show the shallow sediment deposition patterns that indicate natural sources of beach nourishment.



**Niantic Bay Boardwalk Reconstruction Progress**

Since Amtrak's replacement of the Niantic River Railroad Bridge started in April, 2010, progress has rapidly moved forward during day and night work shifts. The project remains on schedule for completion in the early spring, 2013. Reconstructing the Niantic Bay Boardwalk (a.k.a. The Overlook), is seen below showing its concrete, sheet pile seawall. You may have noticed night activity along the seawall marked by work lights illuminating the scene as you drive on Main Street (Route 156). That third shift work activity has been reduced as the seawall nears completion of its 2,515 foot length stretching westward from the Niantic River Railroad Bridge.

Once this seawall is completed, fill will be placed between it and the railroad embankment. The 10 foot wide Overlook concrete walkway will ultimately be build running along the top elevation of the seawall. Another concrete retaining wall, the "T-Wall," will be constructed along the northerly side of the walkway as diagramed in cross section on Page 4.

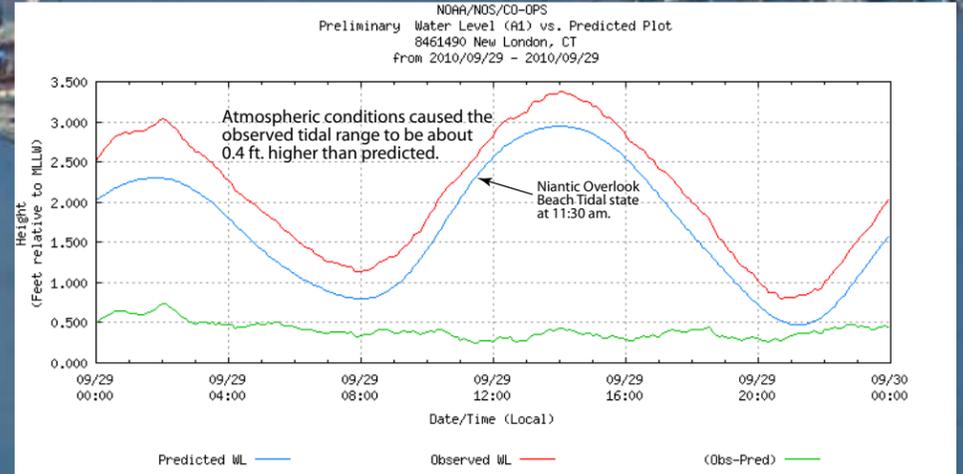
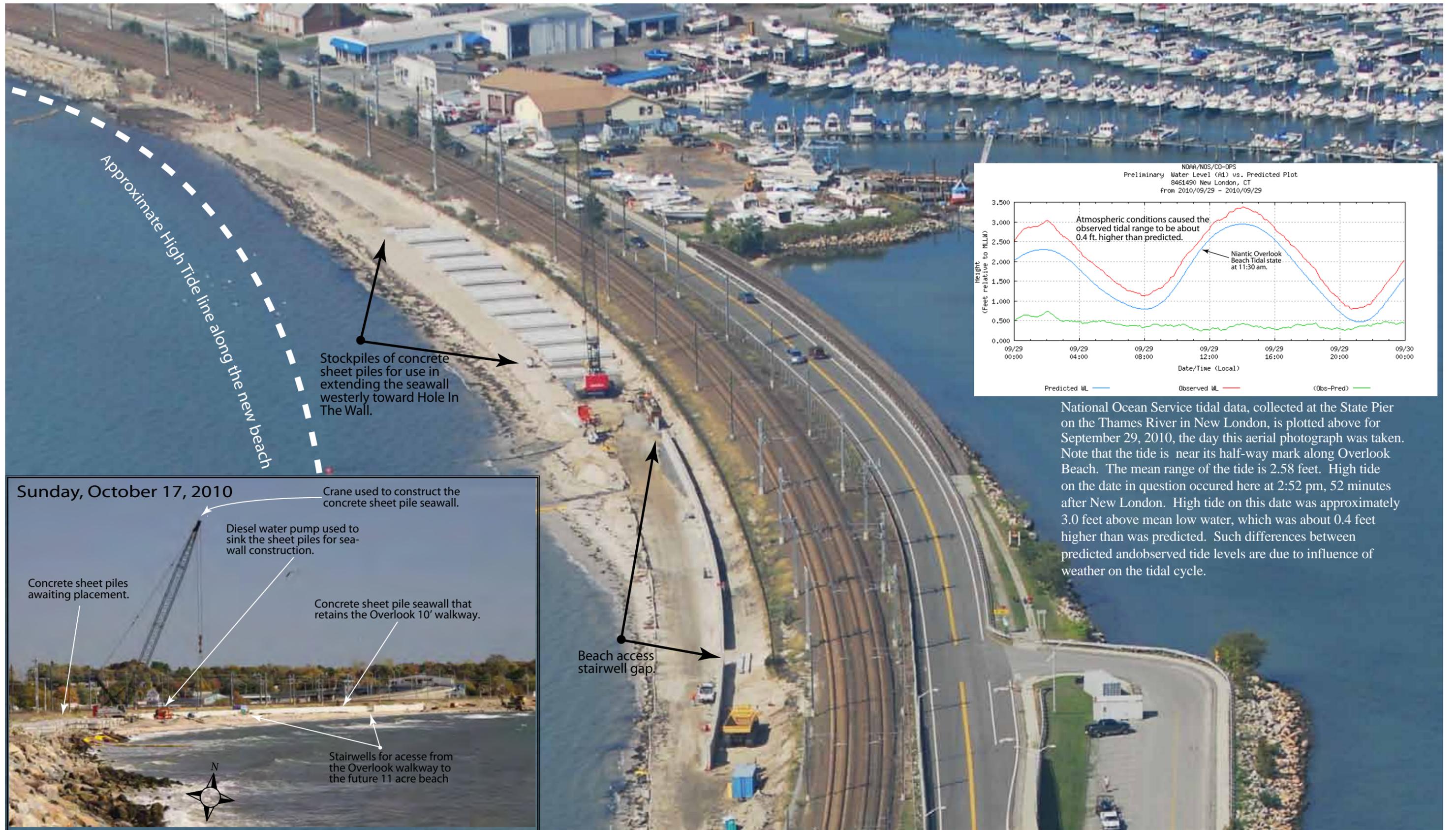
The new railroad bed will be parallel to and at a higher elevation than the walkway, separated from it by the T-Wall and security fencing along the top of the T-Wall.

The relationships between these design elements are all illustrated by the cross sectional engineered drawing shown on Page 4.



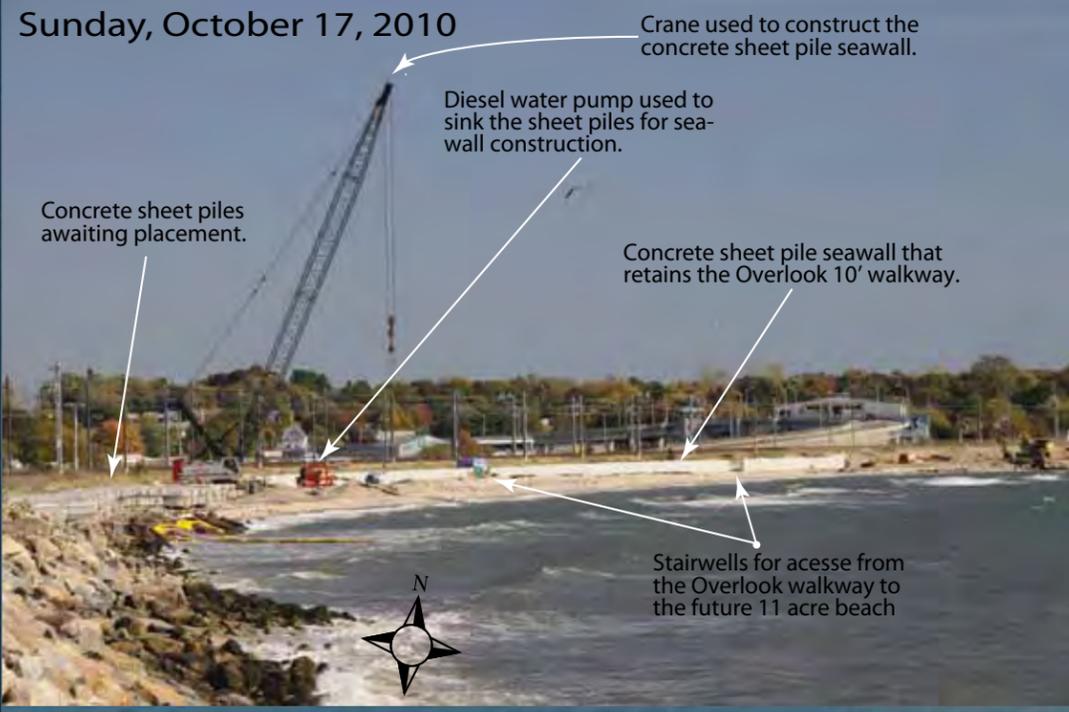
**Seawall Construction Progress**

The seawall pictured above will be significantly armored with scour protection with 1,900 pound maximum weight stones placed at and below beach surface and 3.4 ton armor stones placed along the foot of the seawall and resting on top of the smaller scour protection stone. These features are depicted in cross section on Page 4.



National Ocean Service tidal data, collected at the State Pier on the Thames River in New London, is plotted above for September 29, 2010, the day this aerial photograph was taken. Note that the tide is near its half-way mark along Overlook Beach. The mean range of the tide is 2.58 feet. High tide on the date in question occurred here at 2:52 pm, 52 minutes after New London. High tide on this date was approximately 3.0 feet above mean low water, which was about 0.4 feet higher than was predicted. Such differences between predicted and observed tide levels are due to influence of weather on the tidal cycle.

Sunday, October 17, 2010



Crane used to construct the concrete sheet pile seawall.

Diesel water pump used to sink the sheet piles for seawall construction.

Concrete sheet piles awaiting placement.

Concrete sheet pile seawall that retains the Overlook 10' walkway.

Stairwells for access from the Overlook walkway to the future 11 acre beach

Beach access stairwell gap.

Construction of a stone groin approximately 240 feet long, perpendicular to the shore and parallel to the Niantic River channel, will trap and retain sediments moving west to east along the shore of Niantic Bay. It is estimated that a new beach will thus be formed that will occupy about 11 acres. The approximate beach front at high tide along the western portion of this new beach is marked by the dashed line seen above. The Amtrak environmental permit, issued by the state Department of Environmental Protection, concurred in by the U.S. Army Corps of Engineers, requires that Amtrak place 79,000 cubic yards of beach sand once project work nears completion to "jump start" the new beach.