

East Lyme Public Trust Foundation, Inc.

NEWS



UPDATES

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Niantic Bay Boardwalk Reconstruction Progress

The basic engineering and design plans upon which this issue of project News Update is based, were prepared for Amtrak by its consultants and this particular set of drawings is titled, *Replacement of the Niantic River Bridge, M.B. No. 116.74, East Lyme, CT*, subtitled, *Addendum for Construction of Beach Nourishment and Terminal Groin*, dated May 22, 2009. It defines requirements that were added to the project during negotiations with state and federal staff. These agreed upon items were thus made part of the original Amtrak proposed work scope required as federal and state permit conditions. These added conditions include: 1) construction of a Terminal Stone Groin Structure, perpendicular to the shoreline and just west of the proposed navigation channel of the Niantic River, and

2) Beach Nourishment along approximately 2,500 feet of the West Approach to the proposed Bridge.

Largely due to Connecticut State Department of Environmental Protection negotiations with Amtrak, replacement of the Niantic River railroad bridge includes construction of a 230 foot long stone groin that will cause sand to collect on the adjacent beach that would otherwise not exist. Therefore, the groin will create new beach areas estimated to be approximately nine acres. To insure creation of that public resource, part of the permit

conditions requires Amtrak to add 76,000 cubic yards of sand along the beach front after project construction is completed in 2013. That action will give a “kick start” to beach accretion (i.e. growth).



Estimated final waterward extent of the new beach at Mean High Water (1.96 ft. elevation).

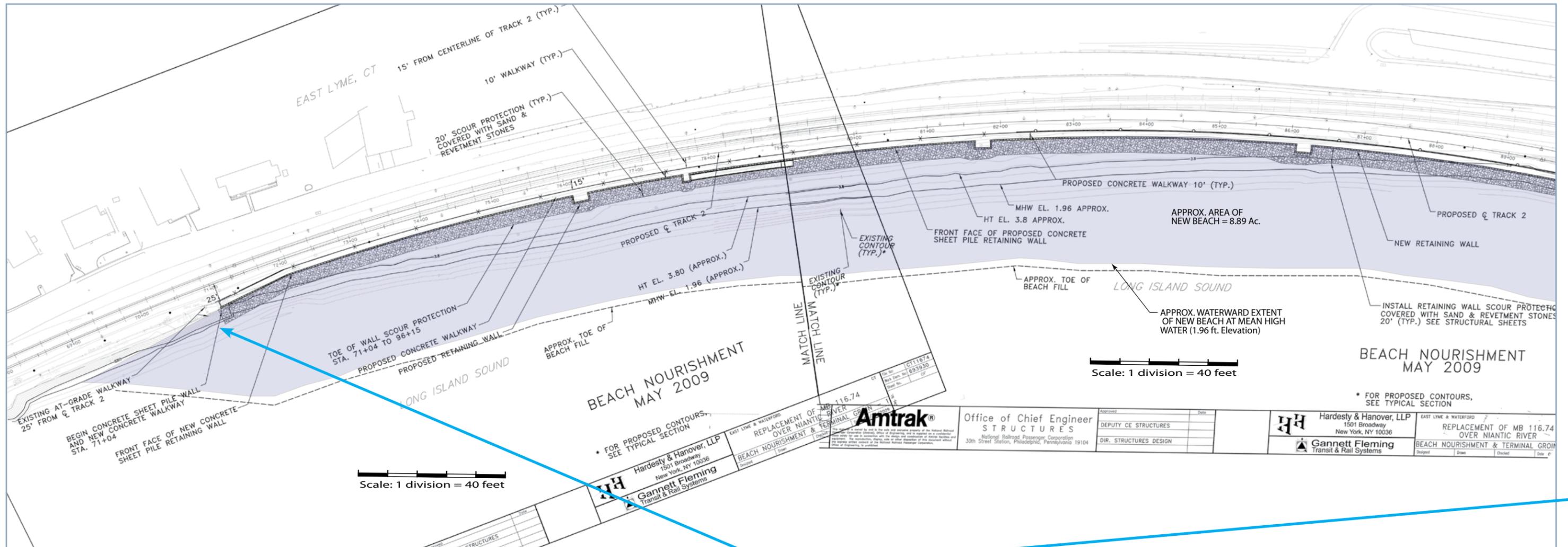
Turbidity Barrier

Temporary steel sheet pile outline of the terminal groin.

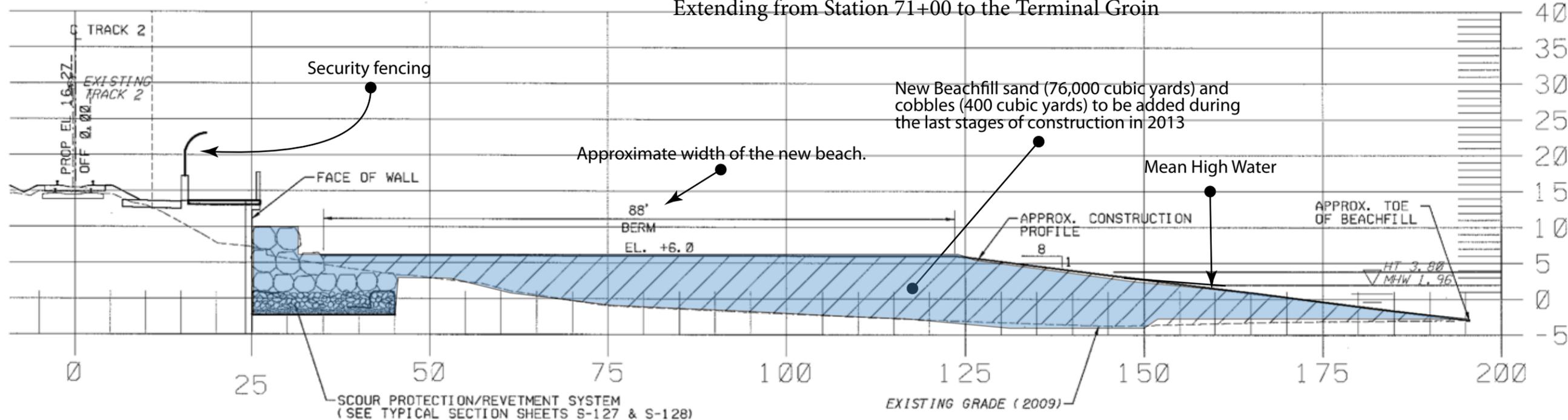
Sea Wall concrete panels (each 20in. x 4ft. x 38ft.) awaiting installation.

Sea Wall

Photographed on
December 29, 2010

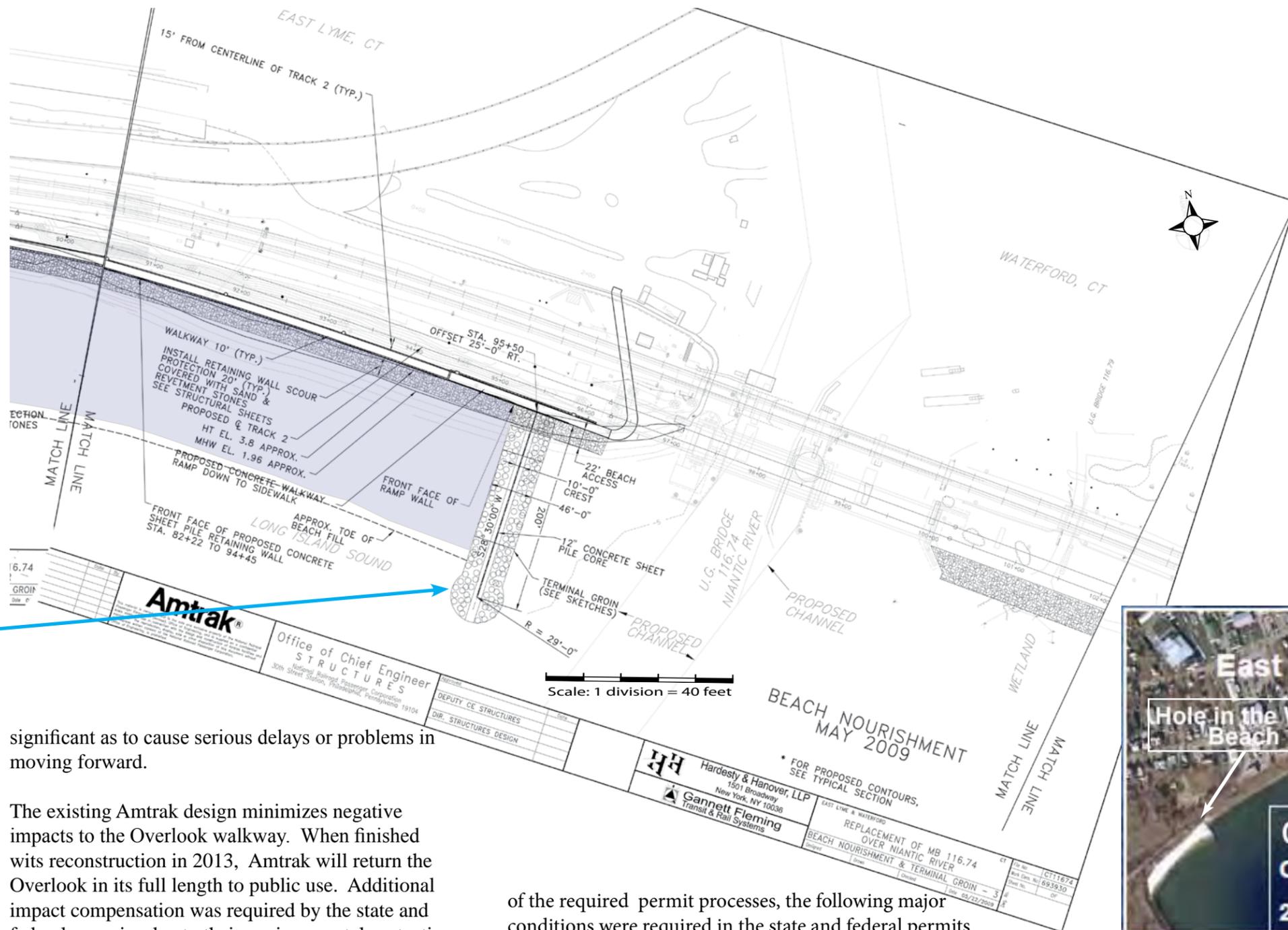


Typical Beachfill Construction Profile
 Extending from Station 71+00 to the Terminal Groin



The plans above and to the left incorporate details that were negotiated between Amtrak, the Town of East Lyme, and the East Lyme Public Trust Foundation, Inc. at meetings between the Connecticut Department of Environmental Protection, the U.S. Army Corps of Engineers, and the U.S. Coast Guard.

Agreements were made on all major issues and those issues that were not resolved to the satisfaction of all parties, were not so



Amtrak construction area will not be closed (See the aerial photograph to the right). The Town of East Lyme will undertake reconstruction of the western portions of the Overlook leading to Hole in the Wall underpass. East Lyme funds, available for this reconstruction of the west end come from the settlement of \$1,600,000 received from DMJM consultants for correction of its faulty design of the western portion of the Overlook. That flawed design

- b) The existing elevated Boardwalk has been removed and will be redesigned/reconstructed as a 10 foot wide concrete walkway along the oceanside railroad embankment. The walkway will be placed along a new armored retaining seawall that will protect the walkway from storm damage to a much greater extent than was originally the case. The concrete walkway will be the same length (2,510 feet) and width (10 feet) as was the original Overlook walkway.
- c) Stair and ramp access to the sandy beach will essentially remain as they were.
- d) A stone groin will be constructed at the eastern end of the Park. It will be approximately 230 feet long with a 10 foot wide walkway on top parallel to the river entrance channel; a structure that will trap sand moving from west to east along the existing beach that will thus create and stabilize the beach along the Bar, which is also known as Railroad Beach. Note below the existing Hole in the Wall beach that was created as a consequence of building the groin there some years ago. That beach formed within five to six years after the groin was completed.

significant as to cause serious delays or problems in moving forward.

The existing Amtrak design minimizes negative impacts to the Overlook walkway. When finished with reconstruction in 2013, Amtrak will return the Overlook in its full length to public use. Additional impact compensation was required by the state and federal agencies due to their environmental protection permit authority. These negotiations added substantial improvements in protecting the Park against storm damage, as well as enlargement of the public beach from its existing 2.1 acres to 8.9 acres, an increase of approximately 425% as measured at Mean High Tide, illustrated here.

At its first public information meeting concerning the final stage of Niantic Railroad Bridge replacement, Amtrak representatives committed to the particulars of its project. That meeting took place at Camp Rell on June 16, 2009. In summary of those Amtrak commitments, and in light

of the required permit processes, the following major conditions were required in the state and federal permits issued to Amtrak:

1. Amtrak began project construction to complete the replacement of the bridge and to reinstall a new Overlook Park in September of 2009, planning to conclude that construction in 2013, when the Park will reopen to public use and remain owned and operated by the Town of East Lyme, as it was previously.
2. During construction, the elevated portion of the Boardwalk, a total of about 2,607 feet, will remain closed to the public. The stone dust path west of the

resulted in storm damage which continues substantially unabated over that portion of the Overlook. Resolution of that problem has nothing to do with Amtrak nor with its bridge replacement project.

3. Once the Amtrak project is completed, the main Overlook Park features will include:

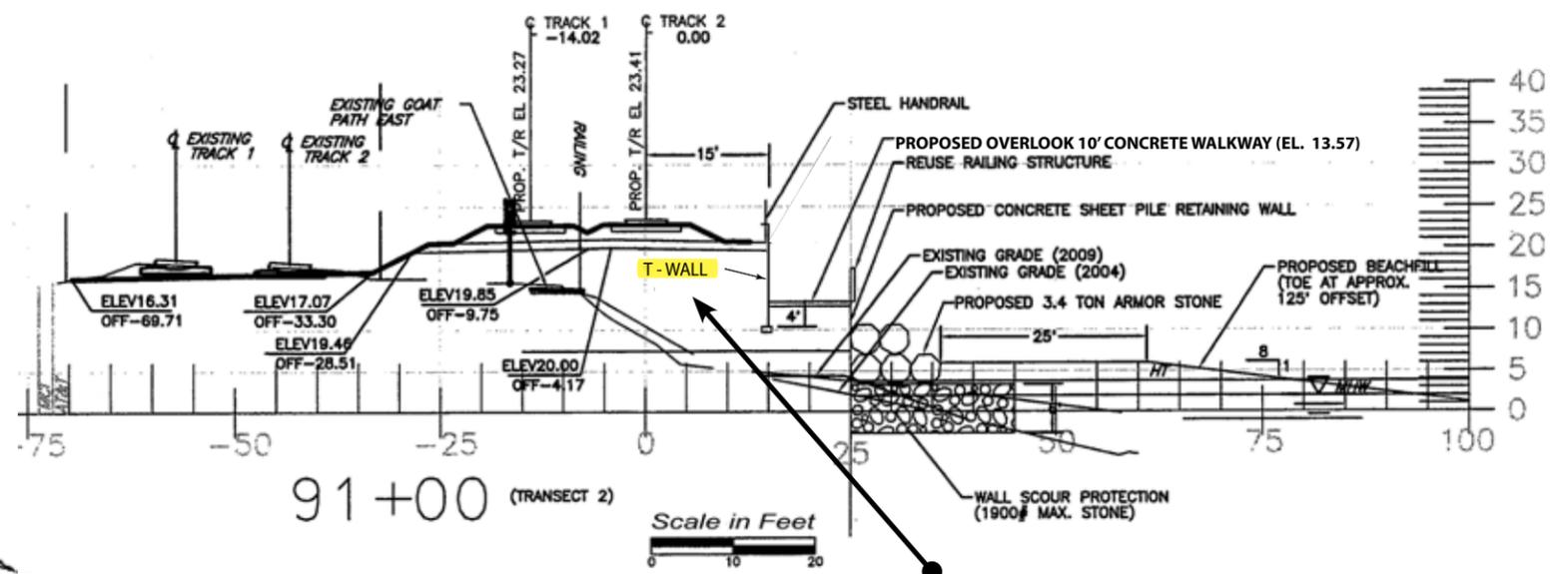
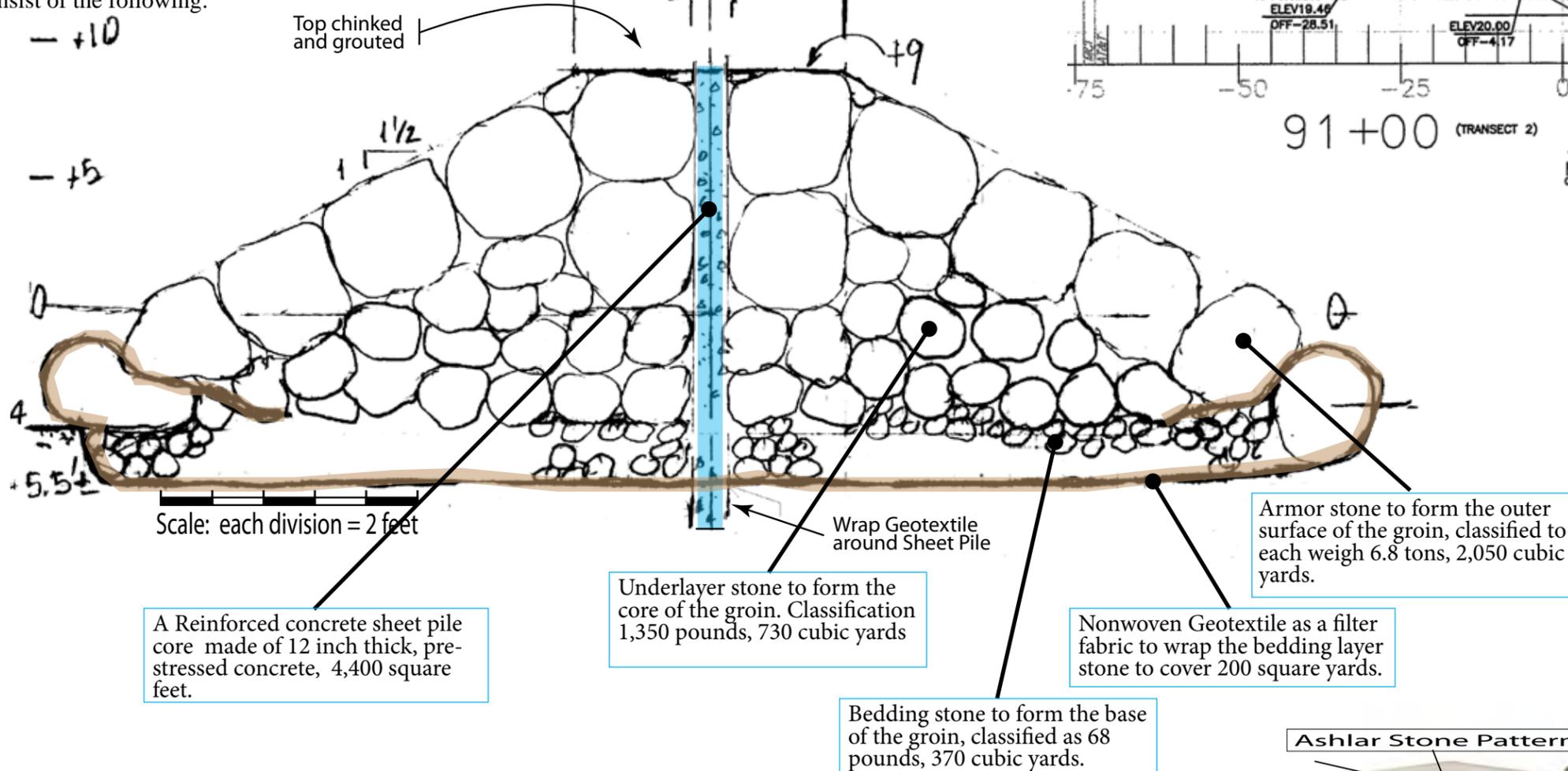
- a) Much improved access to the Overlook and its associated sandy beach. A new passageway under the new bridge will be wide enough for emergency vehicles to pass from Cini Park to the beach and walkway.

e) One hundred and three memorial benches and more than 1,300 memorial plaques have been moved out of harms way by the East Lyme Public Trust Foundation, Inc. and by Amtrak for the duration of construction after which they will each be returned to their original relative positions along the Overlook.

The location of each memorial has been documented by the Foundation, which information will be given to both East Lyme and Amtrak during the final project construction period.

The construction of the stone groin as part of the Amtrak railroad bridge replacement project provides a major benefit to the Niantic Bay Overlook Park. Its presence creates and maintains a new park beach of approximately nine acres.

A cross section of that groin is sketched here at a point approximately 40 feet off shore along the 230 foot center line of the groin. The materials that comprise the groin consist of the following:



The T-Wall location is labeled above in cross section at Project Station 91+00 where the wall is approximately 8 feet high. The photograph below is of a single Ashlar Stone patterned T-Wall panel. The patterned surface faces the Overlook walkway and the 6.5 foot long "deadmen" are buried in the rail road embankment fill, which serves to anchor the wall.

The memorial plaques that are in storage, and new plaques that continue to be donated to the East Lyme Public Trust Foundation (see <http://www.publictrustfoundation.org/donors.htm>) will be mounted along the Overlook walkway during the last stages of project reconstruction.

Note that the top of the groin is 10 feet wide and relatively flat in order to provide a walking surface. The potential to construct a fishing pier on the groin will be investigated by the East Lyme Public Trust Foundation, Inc., and perhaps others, once the project is nearer completion, now scheduled for the fall of 2013.

Overlook Retainng Wall

The Neel Company, 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 upper right). The retaining wall sta-

bilizes the embankment fill on which the rail beds will be constructed. The wall requires 754 concrete panels whose dimensions are noted on the photograph to the right. Each panel weighs approximately 3,500 pounds and there are eight different panel types that will be fitted together to create the wall structure.

The wall will extend from a point approximately 120 feet west of the rail road bridge underpass walkway from Cini Park, up an incline to Project Station 94+45. From that point to Project Station 82+22, the T-Wall will extend 1,217 feet west and cover 14,103 square feet.

