

# FREQUENTLY ASKED QUESTIONS

## STEEL SHEET PILE DUNE RESTORATION

### TOWNSHIP OF BRICK AND BOROUGH OF MANTOLOKING

The New Jersey Department of Environmental Protection (NJDEP) Bureau of Coastal Engineering (BCE) held public meetings in the Borough of Mantoloking and the Township of Brick on June 17th and June 18th, 2014. BCE has compiled a list of frequently asked questions as a result of these meetings and other inquiries from the public. Below are the responses to these questions:

#### **WHY IS THIS PROJECT BEING CONSTRUCTED? WHAT IS THE BENEFIT TO THE CITIZENS OF NEW JERSEY?**

During Superstorm Sandy several sections of State Route 35 were damaged including three breaches of the barrier island in Mantoloking, most notably at Herbert Street. As a result of the damage from Sandy, the New Jersey Department of Transportation (NJDOT) has spent over \$120 million to repair breaches as well as reconstruct Route 35 within the project area. This is in addition to the enormous expenses spent by the sewer, natural gas, and electric utilities as well as individual homeowners. Due to the overwhelming costs associated with Sandy and more importantly, the need to preserve the vital link of this coastal evacuation route, the Steel Sheet Pile Dune Restoration project was conceived.

The purpose of this project is to add an additional layer of protection to prevent potential breaches and damage to Route 35, infrastructure, and homes along this narrow and vulnerable portion of the barrier island to ensure safe passage of supplies and personnel in the event of future storms similar to Sandy. The project will begin in late-June 2014 and is projected to finish in early Fall 2014.

#### **HOW MUCH IS THIS PROJECT GOING TO COST? WHO IS PAYING THE BILL?**

The project was solicited via an open competitive public bid through the NJDEP's Bureau of Coastal Engineering. The contract was awarded to the lowest bidder, EIC Associates, with a bid of \$23.8 million.

The Federal Highway Administration (FHWA) is funding 80% of the construction costs. The State of New Jersey will pay the remaining 20%.

#### **IS THIS PROJECT INTENDED TO BE A STAND-ALONE SHORE PROTECTION FEATURE?**

No. The intent of this project is to provide protection prior to the Army Corps of Engineers (ACOE) beachfill project. The alignment of steel sheeting was designed to be placed within the landward slope of the proposed ACOE dune. After the ACOE project is installed, the steel sheeting will remain in place, within the dune, and serve as a last line of defense for storm damage reduction.

#### **WHEN IS THE ARMY CORPS PROJECT SCHEDULED TO BEGIN? WHAT IS THE CURRENT STATUS?**

The ACOE project has been designed, but several logistical issues on various levels of government need to be resolved prior to construction. The current anticipated start of the beach replenishment is between late Fall 2014 and Winter 2015, however, no official start time has been given.

---

## **WHO IS THE CONTRACTOR CONDUCTING THE WORK FOR THIS PROJECT? WHAT IS THEIR EXPERIENCE WITH PROJECTS OF THIS MAGNITUDE?**

The contractor performing the work for this project is EIC Associates, Inc. located in Springfield, NJ who has been in business since 1998. EIC is comprised of engineers, tradesmen, managers, and executives who have worked on numerous projects in the NY-NJ area. EIC has reported annual revenues as high as \$100 million, and have been awarded individual contracts as large as \$100 million as well. Recently, EIC completed an \$18.9 million marine construction project at the Pier C Park in Hoboken, NJ. For more information visit [eicassociates.com](http://eicassociates.com).

## **WHEN WILL THE DELIVERY OF SHEETING BEGIN?**

Sheeting delivery started during the week of June 22nd, 2014. Forty-five foot long steel sheets will be delivered initially to the Brick Beach III (BBIII) staging area. Sheeting will immediately be delivered from the staging area to work zones in the Mantoloking portion of the project and then later to Brick sections. Transfer of the sheets to the work zone in Brick is anticipated to begin in mid-July. Sheeting delivery will continue throughout the summer, but is to be completed by September 2nd, which is the re-mobilization date for the NJDOT Route 35 Reconstruction project.

## **WHERE WILL THE STEEL SHEET PILE BE STORED? WILL THE STEEL SHEETS BE STORED ON TOP OF THE DUNE? WILL THEY BE EXPOSED TO THE PUBLIC?**

Steel sheets will initially be stored at the BBIII staging area until it is transferred to the work platform atop the dunes. Once the sheeting is set in place atop the dune it will be fenced off from the public with orange safety fencing, but the area will be visible. There will be no trespassing in these delineated areas. Policemen will regularly patrol the dunes to ensure safe activity and passage while the public traverse the dunes.

## **HOW WILL THE STEEL SHEETS BE TRANSFERRED? WILL THE CONTRACTOR BE WORKING ON THE DUNE? HOW MANY TIMES PER DAY WILL THE CONTRACTOR HAUL MATERIAL ATOP THE DUNE?**

Steel sheets will initially be transported along Route 35 to several staging area locations provided to and procured by the contractor. Once the sheeting arrives to the various staging areas, it will be unloaded and transferred to an off-road trailer. The sheeting will then be delivered to the installation work area atop the dune via a police escort led bulldozer and off-road trailer. The police officer will direct dune traffic and act as a crossing guard for pedestrians traversing the dune. Sheeting will be moved atop the dune anywhere between 10-15 times per day, followed with a return pass. Therefore, you may see the police escort, bulldozer, and off-road trailer pass your location in upwards of 20-30 times per day until all of the sheets have been delivered for that portion of the project. The sheet hauling along the dune will be conducted at slow speed (5 MPH or less) for the overall safety of the public.

## **WILL THERE BE ACCESS TO THE BEACH FOR RECREATIONAL PURPOSES? WILL HOMEOWNERS BE ABLE TO ACCESS THE BEACH FROM THEIR PROPERTY? WILL I EVER BE DENIED BEACH ACCESS DURING THE CONSTRUCTION PROCESS? HOW WILL THIS WORK PROGRESS?**

Generally speaking, there will be access to the beach for both recreational users and homeowners. There will be times of limited to no access from private homes to the beach.

Prior to the start of physical construction, the steel sheeting will be staged at varying times along the top of the existing dunes within the project work area. During this time you will see a bulldozer hauling sheeting on an off-road trailer escorted by police personnel on a four wheel ATV/UTV from the various staging areas (Brick Beach III, Albertson St, Herbert St to name a few). The contractor intends to deliver roughly 10-15 loads, equating to

---

20-30 trips (up and back) a day during the 8 hour workday. The only restriction of access during the stockpiling phase will be for a few minutes while the bulldozer travels at slow speed along the dune. The sheeting will be off loaded at varying locations from one staging area point to the next, and will be subsequently fenced off with orange safety fence. Once fenced off, access to the beach will be restricted to the public access points. At this point homeowners will need to access the beach at the public access points within the municipalities.

During the installation of sheeting, the contractor will utilize two crews. The installation crew will restrict access to the entire beach and dune within a 500 foot section in order to safely perform their tasks. The crew will first cut the area down to the proposed grade for the installation of the sheeting and scour apron, followed by the sheet driving operation, completed with the scour apron and steel cap installation crew. The sand removed to meet the proposed grade will be stockpiled upland within the work area. Once the bulkhead is completed, the contractor will replace the sand back to the original grade in order to cover the project and restore the existing dune. You will be able to see the approach of work as the sheeting crew progresses much in the way a beachfill operation works.

### **WHEN WILL THE SHEET PILE INSTALLATION BEGIN?**

The anticipated start of sheet pile driving in Mantoloking is projected to begin on or about July 9th. Initially, there will be one crew consisting of approximately 10-15 workers forming three sub-crews. There will be an excavation and re-grading crew, sheet pile installation crew, and anti-scour apron and cap installation crew.

On approximately July 30th, a second complete crew will begin work at the southern limit of Brick Township and work north.

### **HOW LOUD WILL THE SHEET PILE DRIVING EQUIPMENT AND DRIVING OPERATIONS BE?**

Steel sheets will be driven with an RTG vibratory pile driver. This piece of equipment emits noise levels similar to an idle tractor trailer. The loudest feature of the driving equipment will be the back-up alarm which is required for all heavy vehicles and trucks. The driving process itself should be muffled with local traffic and other construction activities; however an occasional clanging of steel sheets may be briefly audible during the installation.

### **IS THE STEEL SHEET PILE GOING TO BE EXPOSED TO WAVE IMPACT AND ENVIRONMENTAL HAZARDS?**

The Steel Sheet Pile is a secondary line of defense and is a crucial element to a larger and more solidified dune system. This means that the sheet pile will be completely encompassed by the dune and is intended to never be seen, unless there is a significant natural event. In the event of a large storm, sections of the steel pile may be exposed but will be re-covered with emergency sand replenishment.

### **WHAT ELEVATION IS THE NEWLY CONSTRUCTED DUNE DESIGNED FOR? IF THE DUNE IN FRONT OF MY PROPERTY IS DISTURBED WILL IT BE RETURNED TO THE ELEVATION IT WAS AT PRE-CONSTRUCTION?**

The constructed dune, which will be completed by the ACOE, is a separate project from the steel sheet pile. The dune height after the steel has been installed shall remain at the same height that it was prior to this construction. However, the pre-construction dune height will be determined from the initial project surveys conducted by Muñoz Engineering. The dune elevation currently varies from +14.0 NAVD88' to +22.0 NAVD88' throughout the project limits. The Army Corps of Engineers' (ACOE) beach nourishment project planned dune height is +22.0 NAVD88'.

---

## **WILL THE STEEL SHEET PILE BE SAFE TO TRAVERSE WITH CHILDREN, HANDICAPPED OR ELDERLY?**

Yes. Again, the intention of the project is to install a sheet pile bulkhead that is encompassed by a larger dune system. Public dune crossovers and walkways, as they appear currently, will serve as the method of access to the beach upon completion of the project. In the event a storm erodes the dune and the sheet pile bulkhead becomes completely exposed, there will be steel ladders every 200 feet on the seaward facing side of the sheet pile for emergency access until the sheet pile is re-covered with emergency trucked-in sand replenishment efforts. Typical dune crossovers and walkways for the public will serve as the method of access to the beach upon completion of the project.

## **WILL SAND BE REMOVED FROM THE DUNE?**

The sheets need to be installed to an elevation +15.0 NAVD88'. Therefore, the sand will be removed slightly below this elevation from the dune for proper installation of the sheeting and scour apron. Sand from the dune will be temporarily stockpiled in an upland location within the 500 foot work zone to permit the installation of the steel sheets. Sand will then immediately be placed back to the pre-condition elevations within that area. The contractor will not remove the sand from the entire dune system at one time; rather, the sand will be removed within the immediate work zone and stockpiled until that section is completed. Each work zone will be 500 feet, which includes the sand removal, sheet installation, capping of the sheeting, apron installation, and re-placement of the removed sand.

## **WHY IS THE STEEL SHEET PILE STEPPED DOWN INCREMENTALLY AT THE END OF BRICK TOWNSHIP?**

The southern end does not currently have a dune or revetment to tie this project into as opposed to the area north of Lyman Street in Mantoloking. Therefore, a step down approach was designed in order to provide protection for the properties at the southern limit, while reducing risks of excessive erosion to the adjacent beachfront. An abrupt end to the sheeting or a sharp turn in the design would create significant end erosion effects typically seen with sheet piles and other hard shore protection structures. To decrease this effect, the design engineer stepped the sheet piles down incrementally by one foot over the last nine properties (from elevation +15.0 NAVD88' to +6.0 NAVD88'). The final elevation of +6.0 NAVD88' was determined in order to place the sheet pile two feet below the observed eroded beach and dune level after Superstorm Sandy. It should be noted that the sheeting will still be driven to the full depth of -30.0 NAVD88' to prevent breaching.

## **IF THERE IS DAMAGE TO MY PROPERTY OR PERSONS ON MY PROPERTY DURING CONSTRUCTION, HOW WILL THAT BE PROVEN? WILL I BE COMPENSATED?**

To monitor any potential damage claims, a third party company, Protec Documentation Services, is performing pre-construction surveys of homes in and around the project vicinity to document existing conditions and will supply these reports to the State of New Jersey. Letters were sent to potentially impacted homeowners requesting appointments to be scheduled for these surveys. However, it is the sole responsibility of the homeowner to schedule the inspection. Oceanfront homeowners that have yet to schedule an appointment, please do so by calling Protec at 1-888-786-8300.

Protec will also be installing seismographs to monitor the vibration levels caused by the sheet pile installation efforts. As an added layer of safety/protection, the seismographs will be set to trip if vibration levels exceed a pre-determined level far below the threshold necessary to cause structural damage to surrounding homes and businesses. Should the seismograph trip, the contractor will be immediately notified and all driving operations will be ceased until the root of the issue can be determined and remedied. This helps to ensure no damage to personal property. Furthermore, upon completion of work, Protec will conduct post-construction surveys to document the properties' condition and note any changes/damage that may have occurred. It should be noted

that humans can sense vibration levels lower than those that would cause damage to structures. Therefore, even though you may feel slight vibration, one shouldn't worry as the steps described above have been utilized as the industry standard for many years.

**IMPORTANT** Please note that it is the homeowner's responsibility to schedule a pre-construction inspection with Protec, please call the toll free number (1-888-786-8300) immediately to schedule. Should damage occur due to the contractors actions, either due to vibration or other means, the homeowner would need to contact EIC Associates who will supply them with EIC's insurance company's contact information. The contractor's insurance company would be responsible for any claims deemed truthful.

## **WILL CONCERNED CITIZENS BE ABLE TO CONTACT THE CONTRACTOR OR THE STATE REGARDING PROJECT INFORMATION?**

Citizens that have concerns specifically about on-site personnel, construction, engineering or project management should first contact the BCE or EIC. General inquiries and concerns should be taken to the respective municipality. Contact information can be found below:

EIC Associates, Inc. – [seawall@eicassociates.com](mailto:seawall@eicassociates.com)

Bureau of Coastal Engineering – [www.nj.gov/dep/shoreprotection/contact.htm](http://www.nj.gov/dep/shoreprotection/contact.htm)

## **HOW CAN I LEARN MORE ABOUT THE MATERIALS AND THE DESIGNS TO BE IMPLEMENTED IN THIS PROJECT? CAN I REQUEST TO OBTAIN INFORMATION ABOUT THE PROJECT?**

Information about this project can be found on each of the respective municipal websites. In addition, the presentations from the public meetings are available on the town sites which are as follows:

Brick - [www.twp.brick.nj.us/sandy-recovery-information/route-35-steel-revetment-sheet-pile-information/](http://www.twp.brick.nj.us/sandy-recovery-information/route-35-steel-revetment-sheet-pile-information/)  
Mantoloking - [www.mantoloking.org/?p=3124](http://www.mantoloking.org/?p=3124)

If additional information is needed please submit a formal OPRA request to the NJDEP which is available here ([www.nj.gov/dep/opra](http://www.nj.gov/dep/opra)). To contact the NJDEP press office please call (609-984-1795).

