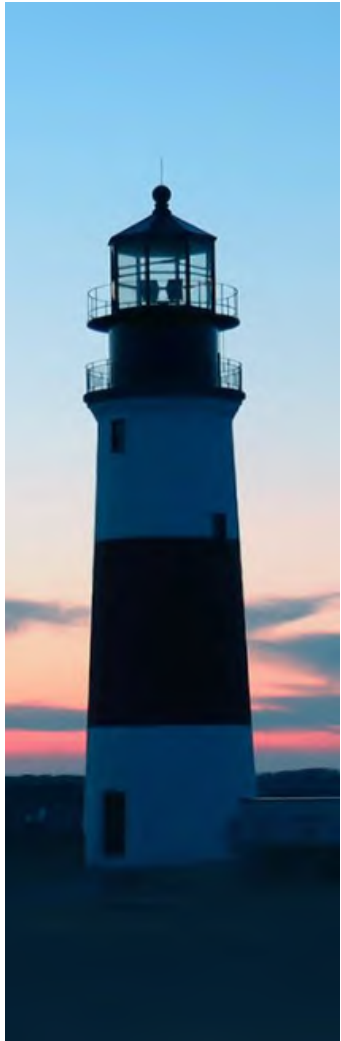


# Alternative Access and Utility Relocation for Continuity of Services for Baxter Road Residents

Select Board Meeting – Project Update

January 11, 2023

# Agenda

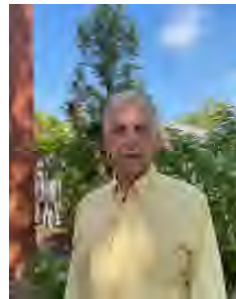


- 1 **Introductions**
- 2 **Goals for Tonight**
- 3 **Project Status & Schedule Update**
- 4 **Route Options**
- 5 **Anticipated Costs**
- 6 **Upcoming Work Items**
- 7 **Questions & Discussions**

# Introductions – Project Team



**Elizabeth C. Gibson**  
Town Manager



**Kenneth Beaugrand**  
Real Estate Specialist



**Vincent Murphy**  
Sustainability Programs Manager



**William D. Casey, Jr., PE**  
Project Manager



**Jennifer Kelly Lachmayr, PE,  
BCEE**  
Project Director



**Kathryn Edwards, PE**  
Public Outreach Lead



**Andy Elderbrock, EI**  
Project Engineer

## Goals for Tonight

1. Update Select Board on project status
2. Describe benefits and impacts of each route option
3. Consensus from Select Board on a preferred route so final design can proceed



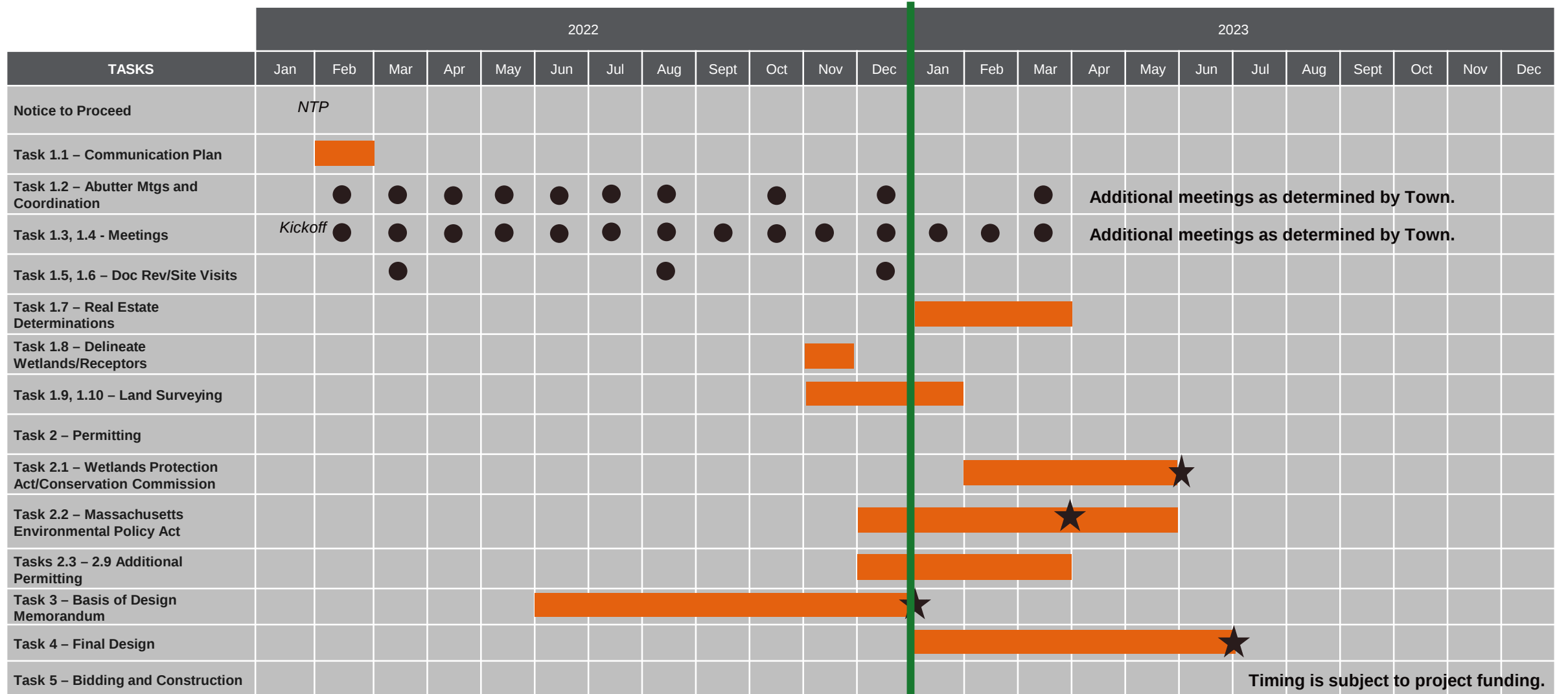
## Project Status Update

- Since Select Board Update on **October 19, 2022**
  - Continued Communication with Homeowners
  - Basis of Design Memorandum - **Submitted & Under Review**
  - Field Survey - **Ongoing**
  - Wetland & Endangered Species Delineation – **Complete**
  - Project Notification Form – **Submitted to Massachusetts Historical Commission**



# Baxter Road Utility Relocation and Alternate Access Design

## Revision 1/3/23 – Subject to Change



Significant Deliverable



Meetings

We are here

Timing is subject to project funding.

10/27/2022

# Route Options

- Three (3) options developed with Town staff & homeowner input (figures to follow)
- Routes indicate proposed access ways AND utility corridors
- All routes:
  - Main trunk lines (water & sewer) in Polpis Road Bikepath (Sankaty Road)
  - Connection to existing infrastructure at Bayberry Lane & Baxter Road
- Routes differ in “branches” connecting properties to Sankaty Road

| Option | Total Length (LF) |
|--------|-------------------|
| A      | 5,650             |
| B      | 5,800             |
| C      | 6,400             |

Option A



Benefits

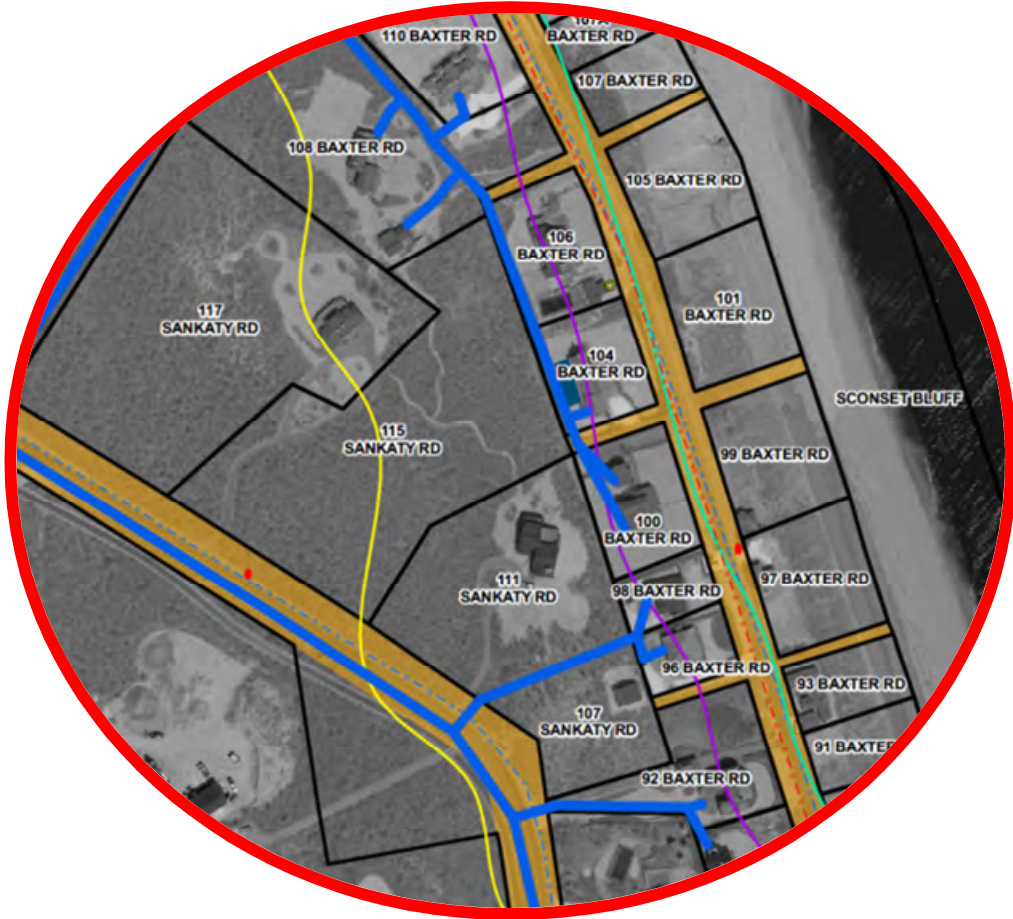
- Avoids existing swimming pools at 104 & 106 Baxter Road
- Minimizes disturbance to native plantings as 96, 98, 100, 104 Baxter have manicured lawns and landscaping
- Shortest overall length of the three options
- Minimizes disruption to family parcel groupings of 111, 115, 117 Sankaty and 108 Baxter
- Planned access for 90-92 Baxter to be a shared driveway with a maximum width of 15-feet

Impacts

- Tight corridor between 100 Baxter & 111 Sankaty will impact privacy
- Tight corridor along 92 Baxter for 90 Baxter access will impact privacy
- Potential relocation of shed at 98 Baxter
- Planned access of two 10-foot travel lanes
- Disturbs native plantings between 107 & 111 Sankaty.
- Zoning variances may be required for setbacks



Option B



Benefits

- Minimizes disturbance to native plantings as 96, 98, 100, 104 Baxter have manicured lawns and landscaping
- Avoids shed at 98 Baxter
- Planned access for 90-92 and 96-98 Baxter to be shared driveways with a maximum width of 15-feet
- Minimizes disruption to family parcel groupings of 111, 115, 117 Sankaty
- Second shortest overall length of the three options by 150-feet

Impacts

- Swimming pools at 104 & 106 Baxter will be impacted
- Planned access of two 10-foot travel lanes for 100, 104, 106 & 108 Baxter
- Zoning variances may be required for setbacks



# Option C



| Benefits                                                                                                                                                                                                                                                        | Impacts                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• Avoids existing swimming pools at 104 &amp; 106 Baxter</li><li>• Avoids shed at 98 Baxter</li><li>• Planned access for 86-90, 96-98 and 100-104 Baxter to be shared driveways with a maximum width of 15-feet</li></ul> | <ul style="list-style-type: none"><li>• Creates more disturbance to native plantings as compared to other Options</li><li>• Maximum disruption to family parcel groupings of 111, 115, 117 Sankaty</li><li>• Longest overall length of the three options thereby highest estimated cost.</li></ul> |

# Anticipated Costs

| Option                                                 | A                                           | B                                           | C                                           |
|--------------------------------------------------------|---------------------------------------------|---------------------------------------------|---------------------------------------------|
| Phase I                                                | \$24,000,000                                | \$24,400,000                                | \$25,900,000                                |
| Phase II                                               | \$10,400,000                                | \$10,400,000                                | \$10,400,000                                |
| Planning Estimate<br>AACE Class 4 [-30% Low/+50% High] | \$34,400,000<br>[\$24,080,000-\$51,600,000] | \$34,800,000<br>[\$24,360,000-\$52,200,000] | \$36,300,000<br>[\$25,410,000-\$54,450,000] |

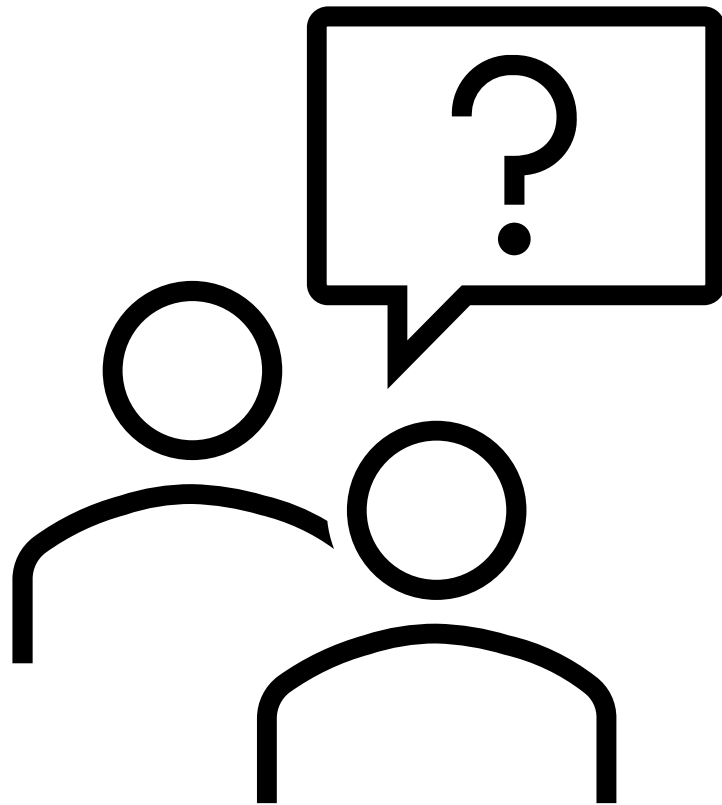
## Notes:

1. AACE = Association for the Advancement of Cost Engineering.
2. AACE Class 4 represents 15% project definition.
3. This estimate represents a low level of accuracy as project design drawings have not been developed. As design documents are developed further the level of accuracy will increase and the contingencies will decrease.

## Upcoming Work Items

1. Route Selection (*January/February 2023*)
2. Permitting (*ongoing*)
3. “Shovel-Ready” Construction Documents  
(*ongoing*)

# QUESTIONS & DISCUSSION



## Thank You!



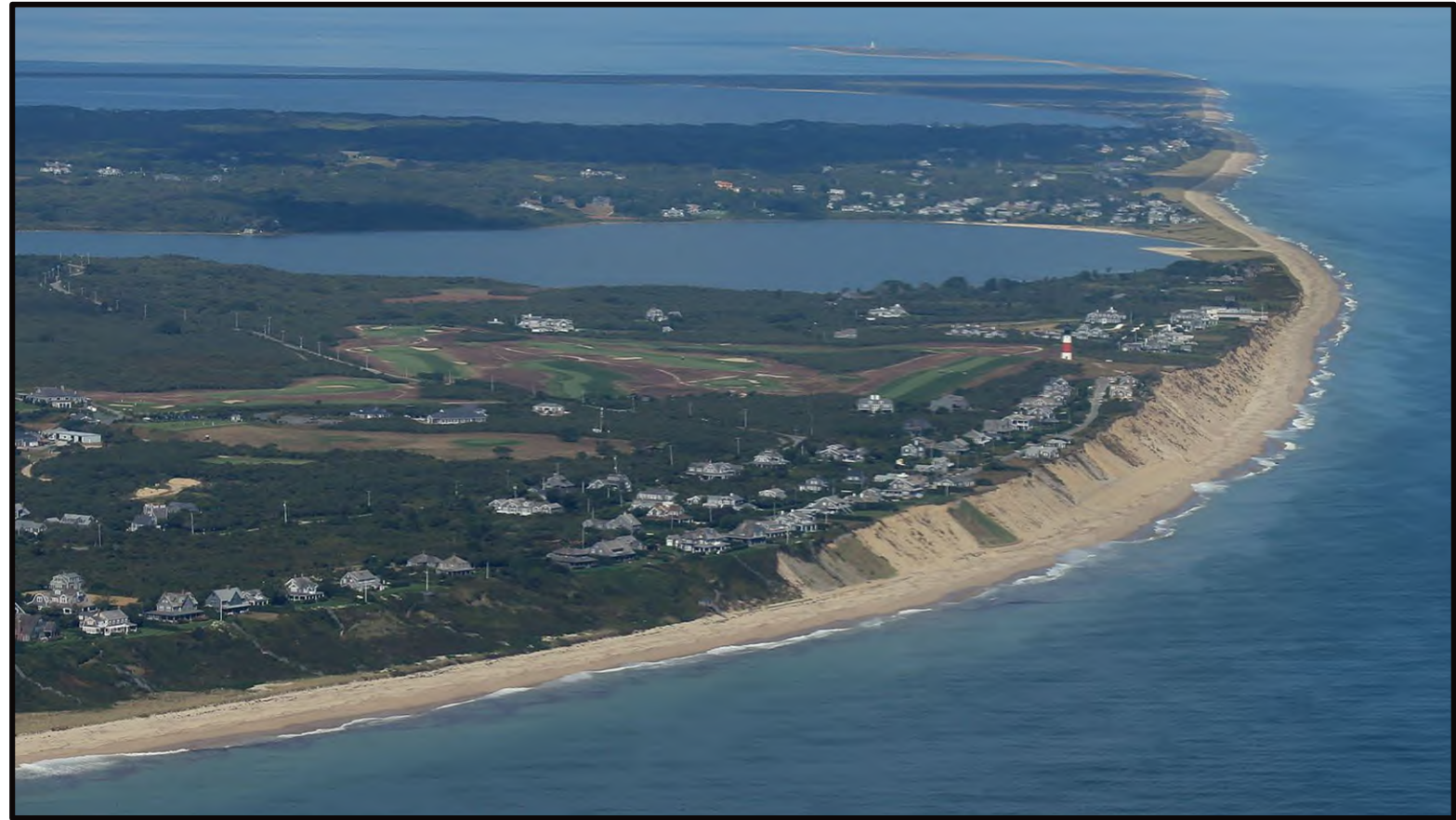
**William D. Casey, Jr., PE**

Project Manager



**Jennifer Lachmayr, PE**

Project Director



<https://www.bostonglobe.com/metro/2014/09/28/battle-over-bluff-nantucket/L41admApMtz3ZGqsO8XITl/story.html>

**Arcadis.** Improving quality of life.



HALEY & ALDRICH, INC.  
465 Medford St.  
Suite 2200  
Boston, MA 02129  
617.886.7400

6 January 2023  
File No. P207112-000

Sconset Beach Preservation Fund  
32 Arlington Street  
Cambridge, MA 02140

Attention: Josh Posner

Subject: Baxter Road Stabilization Project  
Sconset Beach  
Nantucket, MA

Ladies and Gentlemen:

This letter has been prepared by Haley & Aldrich, Inc. (Haley & Aldrich) for the Sconset Beach Preservation Fund (SBFP) to outline steps required in order to remove the Existing Geotubes from the toe of slope along the bluff at Sconset Beach that extends from 87 Baxter Road at the south to halfway across 105 Baxter Road at the north. The Geotubes extend 852 linear (ln.) feet (ft) from south to north with a 74 ft return at the south and a 21 ft return at the north. Design drawings indicating geotube lengths per Ocean and Coastal Consultants (OCC) drawings dated 12 March 2013. Drawings 210019.1-3A-01 and -02 as Figure 01 and Figure 02 are attached for reference, the as-built drawing by Blackwell & Associates, Inc. dated 4 March 2016 as Figure B-7275 is attached. In addition, to provide our opinion as to the requirements to remove the stormdrain pipe that currently conveys storm water runoff from Baxter Road down to the Beach.

## **Background**

The Geotube toe protection system along the east facing coastal bluff was installed in two stages. The first stage took place from December 2013- January 2014, and the second stage took place in late 2015, raising the height of the geotubes. The Geotubes consist of a geotextile bag measuring 100-200 ft in length 7 ft high by about 19 ft wide. The bag is placed in position and then filled with a mixture of pumped sand and water, with the water passing through the geotextile material leaving a tube full of sand. These tubes are placed at the toe of slopes where coastal erosion may occur, thereby reducing the potential for erosion of the natural bank. At Sconset Beach, 4 stacked geotube exist for 523 ln. ft at the southerly end, transitioning to three stacked tubes for the remaining 329 ft refer to Figure 02 attached.

In addition, to the stacked geotubes at the toe of slope, a new 6-inch diameter storm drain was installed along Baxter Road near 87 and 91 Baxter Road to convey stormwater within a pipe from the road down

the bank to behind the geotubes at beach level in order to reduce erosion of the bank that results in bank instability. This new drain replaced an existing 4-inch diameter PVC pipe that existed in this location. Refer to Figure 02.

Currently, the tubes have been in place for about 9 years and the bank landward of the geotubes has been vegetated with native plantings and beachgrass. Since installation, the slope has been stable and does not shown signs of bank retreat. In addition, the stormwater conveyance system has been reported to be controlling erosion at the face of slope.

The Town of Nantucket's Conservation Commission has directed SBPF to remove the geotubes and stormdrain from the beach. The Superior Court has confirmed the Commission's authority to require removal. It should be noted, the Court did not issue an opinion on whether it was a wise decision to remove the geotubes/stormdrain or not.

### **Required Steps Prior to Removal of Geotubes and Stormdrain**

Prior to the actual removal of the geotubes and stormdrain from the beach and bank, a number of activities must occur including obtaining the necessary permits for construction within a resource area. The following is a list of actions to be undertaken prior to construction.

- Prepare and submit a Notice of Intent (NOI) to the Conservation Commission if required describing the project and means and methods for removal. Based on the NOI, SBPF would be issued an Order of Conditions for the work. Estimated time: 2 to 3 months. The Commission may, in our opinion, waive the requirement for a new NOI submission and review and alternatively issue an amended enforcement order.
- Request an assessment of the existing residential structures located at the top of the bluff by the Owners and Town Building Department as to their status once the Geotubes and stormdrain are removed, or the risk that the process of removal itself could threaten the immediate collapse of the bluff and homes involved. Estimated time: 2 months.
- Relocate or remove residential buildings from top of bluff if deemed at risk, if prudent or required. Estimated time: 6 to 7 months.
- Town DPW etc. assess impact to Baxter Road and utilities once geotubes and stormdrain are removed. Note, the offset of the road to the top of Coastal Bank presently protected by the geotubes ranges from 31- to 53-ft. Based on prior assessment by H&A and the DPW carried out in 2013 before the geotube project was installed, it was determined that the DPW potentially would close a stretch of Baxter Road to vehicular traffic if the distance is reduced to 25 ft. Estimated time: 2 months.
- Obtain right-of-access to the beach in the vicinity of the Beach club and area for staging, or re-institute current right-of-access. Estimated time: 1 month.

### **Geotube Removal Process – Conceptual**

The schedule for removal of the geotubes needs to be within the late spring to early fall time period, this is due to having a wider beach to work upon and few major storm events. Construction on the beach during the winter months would be a greater risk to the environment and workers due to limited beach area and storm intensities.

Overarching criteria for geotube removal is to undertake the work in a safe manner, maintain the existing slope as close to the existing geometry as possible, all sand currently within the geotubes to remain on the beach, toe of slope where work has been undertaken to be graded to a consistent slope to meet current undisturbed slope, and all geotube materials to be removed and disposed.

It should be noted that a significant volume of sand was added to the face of the bluff at the time of geotube installation to enable vegetation. It is expected that this volume is likely to slide once the geotubes at the toe holding it in place is removed, or as toe erosion occurs during storm events. The slope will return to its near vertical geometry and the slope face will move landward further endangering structures and infrastructure located on the bluff.

The following is an outline of the steps required to remove the geotube:

#### **Option 1**

1. Mobilize required equipment to Beach Club area.
2. Remove sacrificial sand from the top and front face of the geotubes, cast sand on to slope landward of the geotubes on the existing slope.
3. Cut the top and exposed sides of the geotubes
4. Allow natural processes to remove sand from within the tubes
5. When geotube materials become free, remove and dispose off-site.

Timeline: This could potentially be a multi-year process, depending on intensity of storm events.

#### **Option 2**

1. Mobilize required equipment the Beach Club area.
2. Remove sacrificial sand from the top of the uppermost geotube. Note: It is the intent to remove each geotube in sequence from highest tube to lowest over about a 100 ft section at a time.
3. Cut the geotextile material horizontally (3 horizontal cuts), parallel to the slope for approximately a 100 ft length.
4. Remove the geotextile material from the top surface to expose the sand within the tube, cutting in sections for handling and offsite disposal.

5. Excavate sand from within geotube, approximately 5 cy per ft of tube. Side cast excavated material towards water. Use of high-pressure water pumped from a near shore pit on beach or intake from ocean maybe utilized to facilitate sand removal or potentially water from hydrant on Baxter Road.
6. Cut and remove lower portions of geotextile material as required and dispose off-site.
7. Continue this work in sections, until entire upper level of geotube is removed.
8. Backfill face of slope with excavated material from landward edge of next level geotube to maintain/restore slope geometry.
9. Once the upper geotube has been removed work would then begin on the next tier of the geotube.
10. Once the above-grade geotubes are removed, the removal of the base tier can be carried out. The base tier starts at approximately El. 0 with a top at about El. +7 to 8, meaning that the entire geotube is below grade under normal conditions in which the beach is at El. +9 to 10. Removal of this below-grade geotube would occur in summer when the beach is naturally at its widest in order to avoid winter storms and the naturally narrowed beach making excavation difficult.
11. This sequence would continue until all the geotubes have been removed. The slope would then be fine graded using the excavated material to shape and slope the work area.

Timeline: 2 to 3 months

### **Option 3**

1. Similar to Option 2 except instead of excavation parallel to the slope the excavation would be perpendicular to the slope.
2. Remove upper 2 or 3 geotubes in 20 to 30 foot sections, excavated sand would be cast into the area where the previous section of geotube had been removed, to backfill that area. This option has the advantage of only opening up a short section of slope as construction progresses.
3. Once the above-grade geotubes are removed, the removal of the base tier can be carried out. The base tier starts at approximately El. 0 with a top at about El. +7 to 8, meaning that the entire geotube is below grade under normal conditions in which the beach is at El. +9 to 10. Removal of this below-grade geotube would occur in summer when the beach is naturally at its widest in order to avoid winter storms and the naturally narrowed beach making excavation difficult.

Timeline: 2 to 3 months

### **Stormdrain Removal Process**

The existing catch basin and horizontal piping can be removed with standard earthmoving equipment. The piping down the face of slope will require hand excavation for removal. This method should result in little impact to the bank during removal. The horizontal level spreader at the toe of slope may be removed as the geotubes are removed. All excavations should be backfilled and vegetated with native plantings and beachgrass in the proper season for planting.

Alternatively, the system could remain in place and sections removed as the bank erodes and the pipe becomes exposed. The Town or the Owner of the road should consider options for stormwater management, potentially directing water to West across Baxter Road.

### **Impacts to the Bank Due to Geotube and Stormdrain Removal**

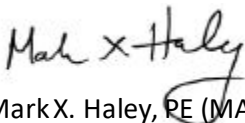
The bank along this section of Sconset Beach has remained relatively stable for the past nine years, with established vegetation and little to no ground loss or bank retreat above the geotube elevations. The reason for this is the toe of slope is protected from ocean scour and soil erosion. The stormwater drainage system has also performed as intended, that is to reduce washouts at the slope face from rain events and stormwater runoff.

Once the geotubes have been removed, the bank will be subjected to both ocean forces at the toe causing scour and erosion. Following the removal of the stormdrain, uncontrolled stormwater runoff over the crest of the bank will occur eroding the face of the bank. As a result of the removal of both systems, this section of the Coastal Bank will return to a near vertical unstable bank similar to the properties located to the north and south. The initial erosion of the bank will be rapid as the double washed sand required for backfill has no cohesion and is highly susceptible to erosion. One storm could potentially erode all of the placed sand at the toe causing sloughing of the bank face. Bank retreat, without the two mitigation systems, will be reinitiated and erosion will occur at a faster rate, as the bank retreat reestablishes the geometry of the bank to where it would have been without the last nine years of protection, creating a near vertical unstable bank.

Structures at the top of bank will be endangered and could potentially topple over the bank. Utilities and passage along Baxter Road will follow soon thereafter.

Sincerely yours,

**HALEY & ALDRICH, INC.**



Mark X. Haley, PE (MA)  
Principal

#### **Attachments:**

Figure 01 – Drawing 210019.1-3A-01

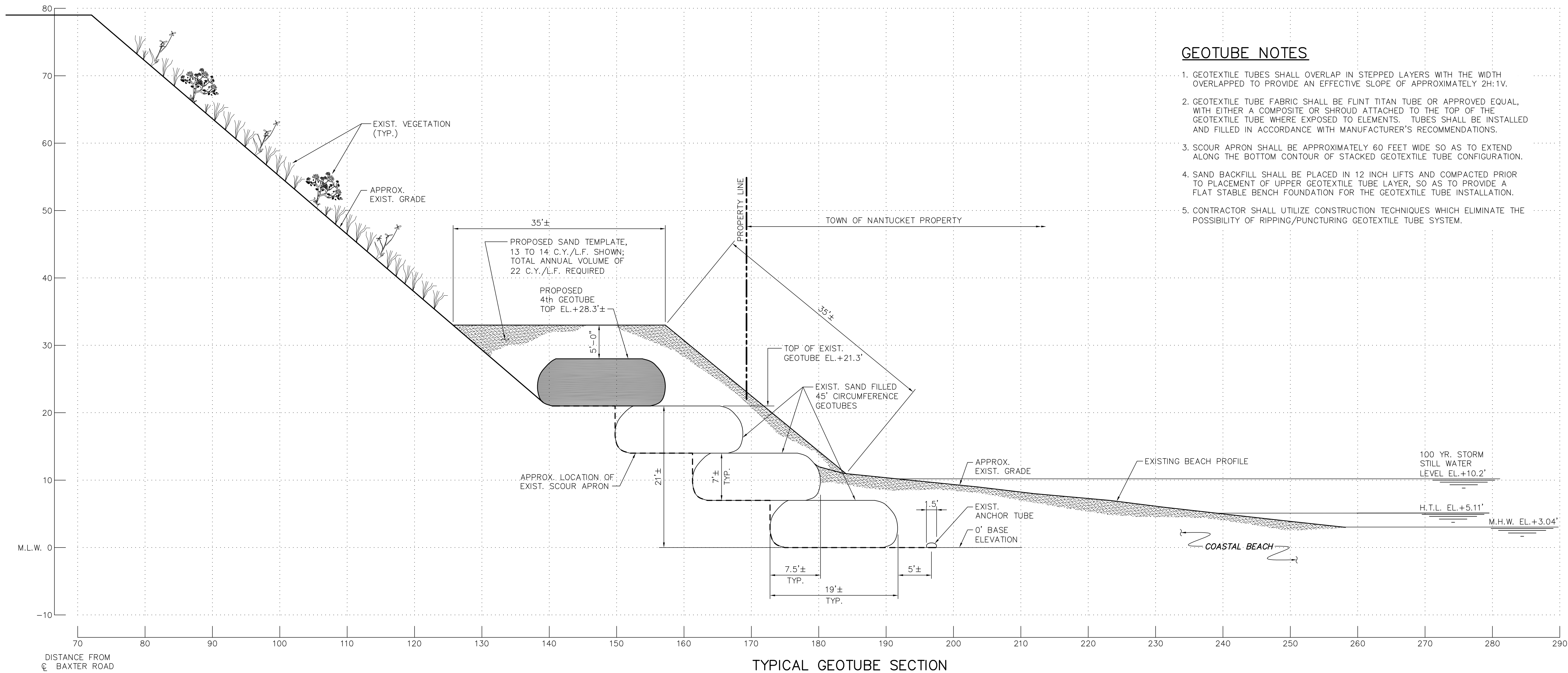
Figure 02 – Drawing 210019.1-3A-02

Figure B-7275 – Record Drawing Baxter Road Slope Stabilization Project

Table 1 – Geotube Removal Timeline

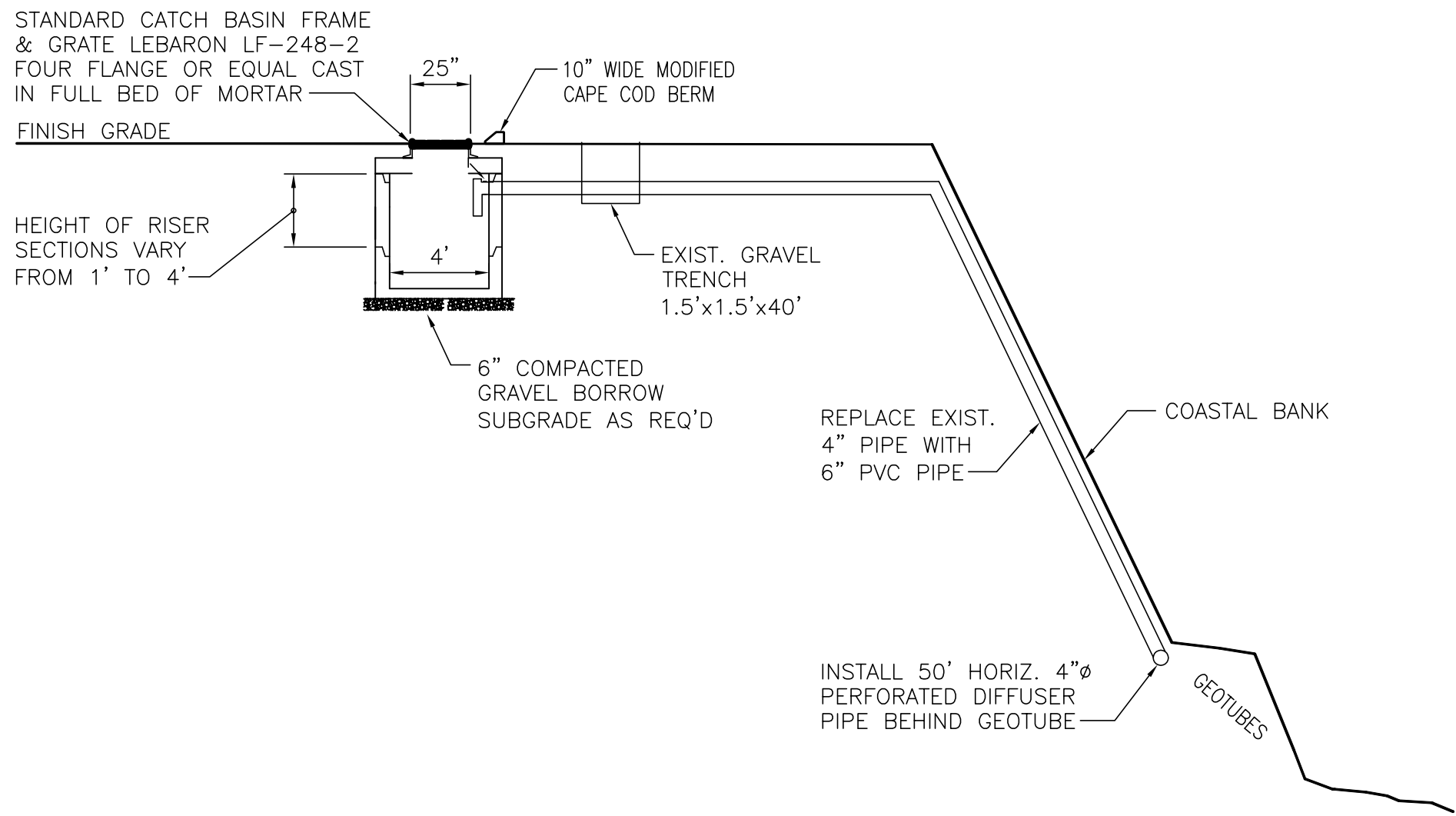
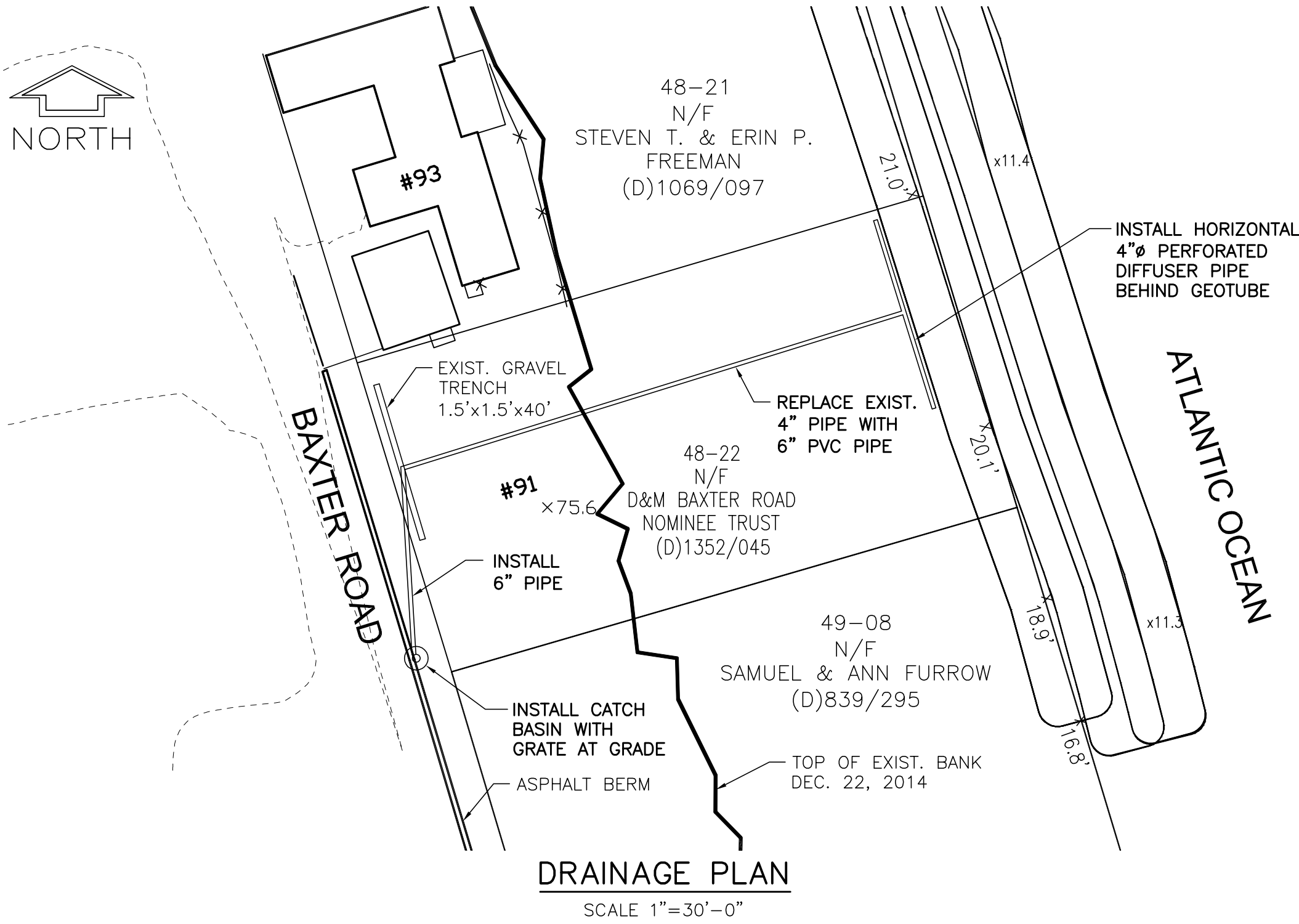


S:\OCC\Projects\210019\1.3\_Project\_Files\CAD\Task 3\Task 3A - Geotube\02.dwg Dwg 02 Carrie Walker Thu, 13 Aug 2015 - 8:42am



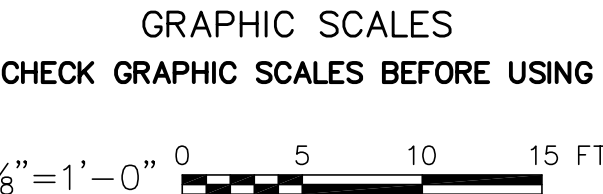
GEOTUBE NOTES

1. GEOTEXTILE TUBES SHALL OVERLAP IN STEPPED LAYERS WITH THE WIDTH OVERLAPPED TO PROVIDE AN EFFECTIVE SLOPE OF APPROXIMATELY 2H:1V.
2. GEOTEXTILE TUBE FABRIC SHALL BE FLINT TITAN TUBE OR APPROVED EQUAL, WITH EITHER A COMPOSITE OR SHROUD ATTACHED TO THE TOP OF THE GEOTEXTILE TUBE WHERE EXPOSED TO ELEMENTS. TUBES SHALL BE INSTALLED AND FILLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
3. SCOUR APRON SHALL BE APPROXIMATELY 60 FEET WIDE SO AS TO EXTEND ALONG THE BOTTOM CONTOUR OF STACKED GEOTEXTILE TUBE CONFIGURATION.
4. SAND BACKFILL SHALL BE PLACED IN 12 INCH LIFTS AND COMPACTED PRIOR TO PLACEMENT OF UPPER GEOTEXTILE TUBE LAYER, SO AS TO PROVIDE A FLAT STABLE BENCH FOUNDATION FOR THE GEOTEXTILE TUBE INSTALLATION.
5. CONTRACTOR SHALL UTILIZE CONSTRUCTION TECHNIQUES WHICH ELIMINATE THE POSSIBILITY OF RIPPING/PUNCTURING GEOTEXTILE TUBE SYSTEM.



GENERAL NOTE

ALL ELEVATIONS ARE BASED ON MEAN LOW WATER DATUM (M.L.W.=0.0').



This drawing and all copies and the design and data shown are the property of Ocean and Coastal Consultants, Inc. and include proprietary information. The borrower by receipt or retention of the drawing, agrees that, except as expressly authorized in writing by Ocean and Coastal Consultants, Inc., it will (1) not use the drawing or any copy of the design or data shown, (2) not reproduce, exhibit or distribute the drawing or any copy for use by others and (3) upon demand return the drawing, all copies and all material copied therefrom.

**Ocean and Coastal Consultants** **COWI**  
Ocean and Coastal Consultants, Inc.  
475 School Street, Unit 9, Marshfield, MA 02050  
Phone: (508) 830-1110 Fax: (781) 834-4635  
Visit us at [www.ocean-coastal.com](http://www.ocean-coastal.com)

**SCONSET BEACH  
PRESERVATION FUND**  
18 Sesapana Road, Nantucket, MA 02554

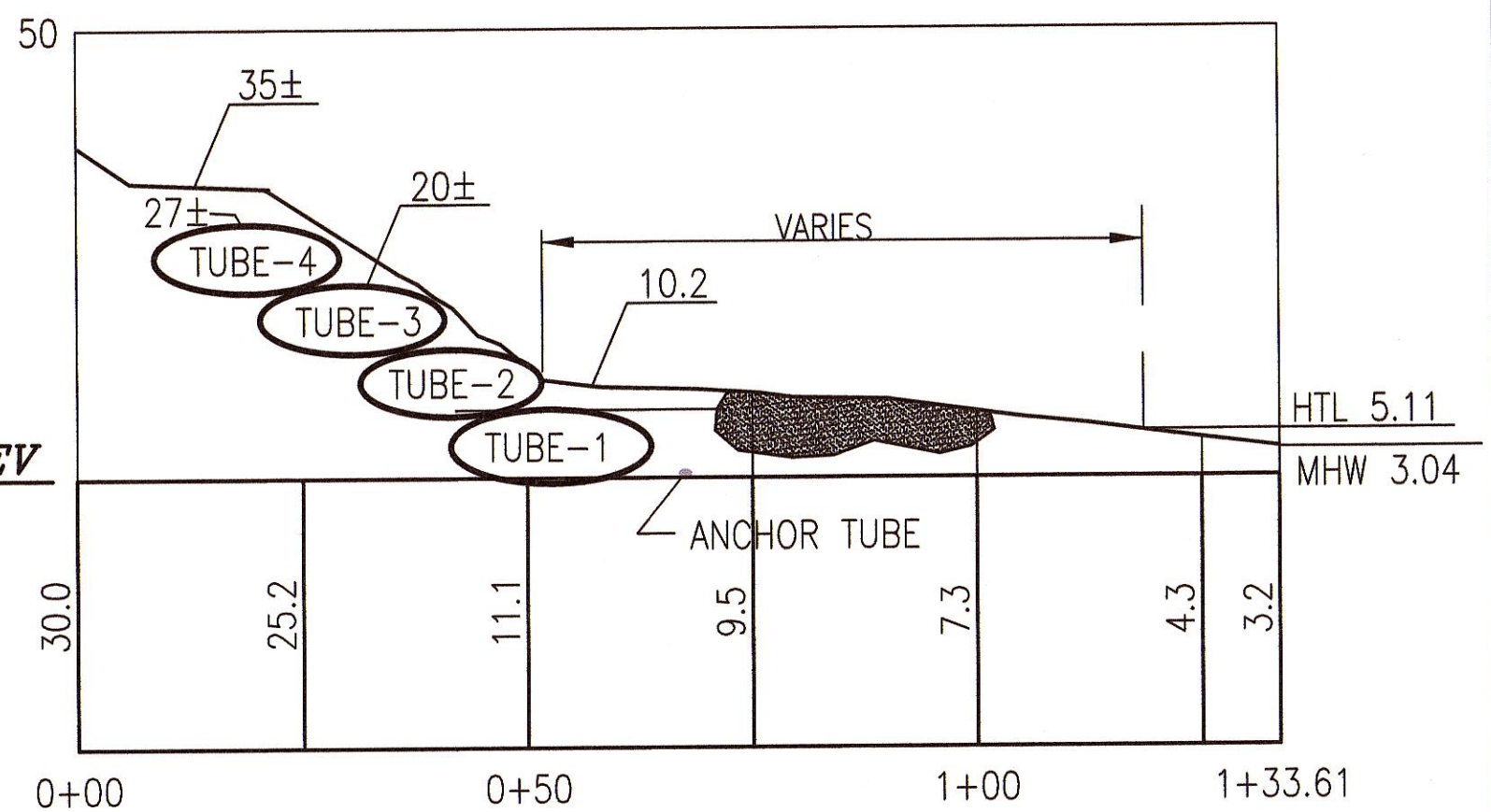
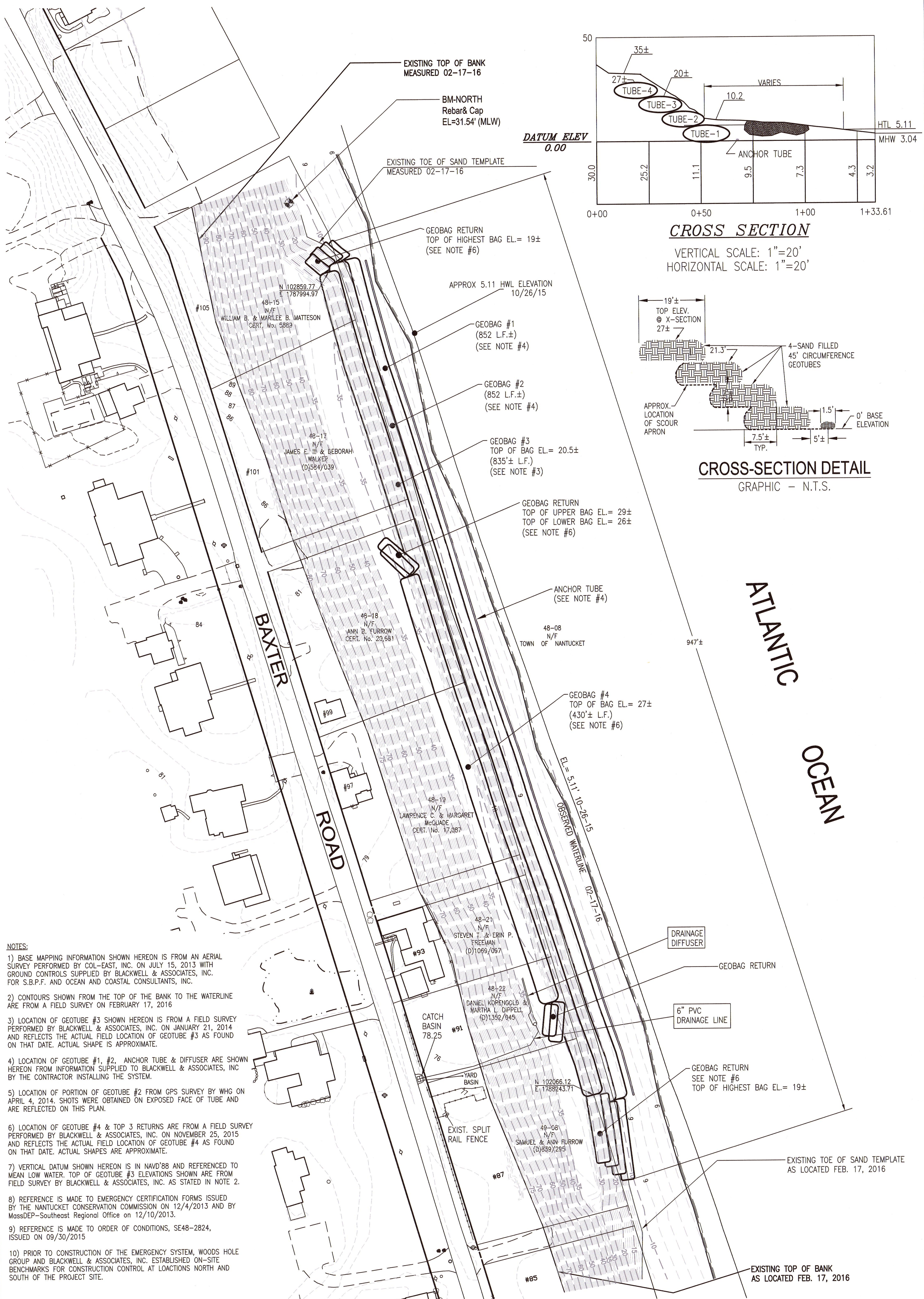
DESIGNED BY:  
AZSL  
DRAWN BY:  
CAMA  
CHECKED BY:  
AZSL  
QC REVIEW:  
JOMA

BAXTER ROAD STABILIZATION PROJECT

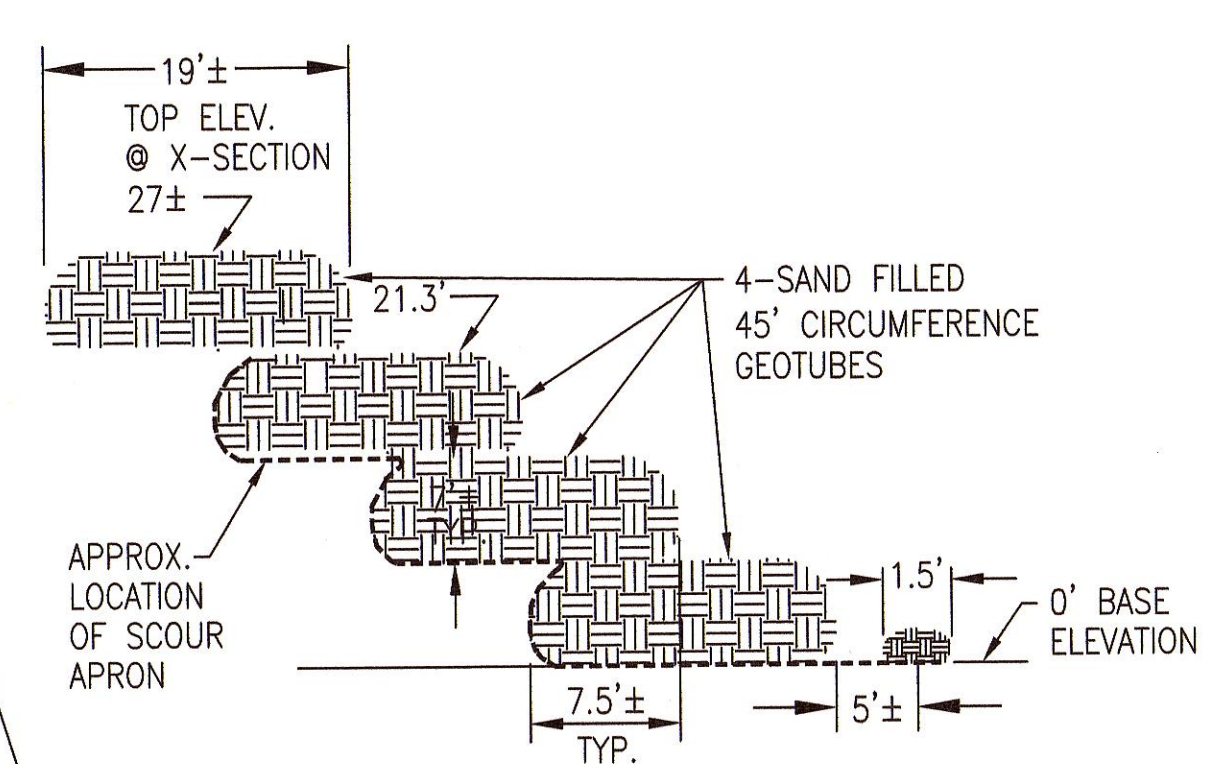
**TYPICAL GEOTUBE SECTION AND  
DRAINAGE IMPROVEMENT PLAN AND PROFILE**

SCALE  
AS NOTED  
DATE  
8/13/15  
REVISION  
**0**  
DRAWING NO.  
**210019.1-3A-02**

**FOR PERMITTING PURPOSES ONLY**



**CROSS SECTION**  
VERTICAL SCALE: 1"=20'  
HORIZONTAL SCALE: 1"=20'

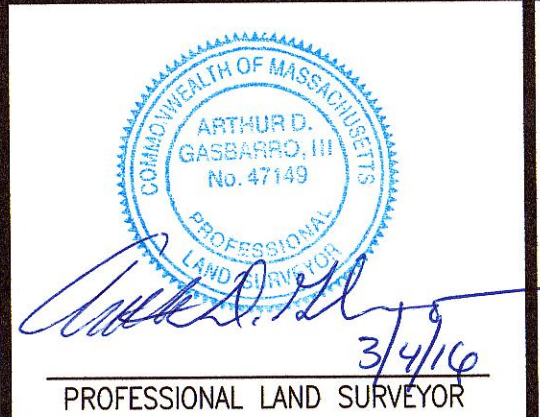


**CROSS-SECTION DETAIL**  
GRAPHIC - N.T.S.

- NOTES:**
- 1) BASE MAPPING INFORMATION SHOWN HEREON IS FROM AN AERIAL SURVEY PERFORMED BY COL-EAST, INC. ON JULY 15, 2013 WITH GROUND CONTROLS SUPPLIED BY BLACKWELL & ASSOCIATES, INC. FOR S.B.P.F. AND OCEAN AND COASTAL CONSULTANTS, INC.
  - 2) CONTOURS SHOWN FROM THE TOP OF THE BANK TO THE WATERLINE ARE FROM A FIELD SURVEY ON FEBRUARY 17, 2016
  - 3) LOCATION OF GEOTUBE #3 SHOWN HEREON IS FROM A FIELD SURVEY PERFORMED BY BLACKWELL & ASSOCIATES, INC. ON JANUARY 21, 2014 AND REFLECTS THE ACTUAL FIELD LOCATION OF GEOTUBE #3 AS FOUND ON THAT DATE. ACTUAL SHAPE IS APPROXIMATE.
  - 4) LOCATION OF GEOTUBE #1, #2, ANCHOR TUBE & DIFFUSER ARE SHOWN HEREON FROM INFORMATION SUPPLIED TO BLACKWELL & ASSOCIATES, INC. BY THE CONTRACTOR INSTALLING THE SYSTEM.
  - 5) LOCATION OF PORTION OF GEOTUBE #2 FROM GPS SURVEY BY WHG ON APRIL 4, 2014. SHOTS WERE OBTAINED ON EXPOSED FACE OF TUBE AND ARE REFLECTED ON THIS PLAN.
  - 6) LOCATION OF GEOTUBE #4 & TOP 3 RETURNS ARE FROM A FIELD SURVEY PERFORMED BY BLACKWELL & ASSOCIATES, INC. ON NOVEMBER 25, 2015 AND REFLECTS THE ACTUAL FIELD LOCATION OF GEOTUBE #4 AS FOUND ON THAT DATE. ACTUAL SHAPES ARE APPROXIMATE.
  - 7) VERTICAL DATUM SHOWN HEREON IS IN NAVD'88 AND REFERENCED TO MEAN LOW WATER. TOP OF GEOTUBE #3 ELEVATIONS SHOWN ARE FROM FIELD SURVEY BY BLACKWELL & ASSOCIATES, INC. AS STATED IN NOTE 2.
  - 8) REFERENCE IS MADE TO EMERGENCY CERTIFICATION FORMS ISSUED BY THE NANTUCKET CONSERVATION COMMISSION ON 12/4/2013 AND BY MassDEP-Southeast Regional Office on 12/10/2013.
  - 9) REFERENCE IS MADE TO ORDER OF CONDITIONS, SE48-2824, ISSUED ON 09/30/2015
  - 10) PRIOR TO CONSTRUCTION OF THE EMERGENCY SYSTEM, WOODS HOLE GROUP AND BLACKWELL & ASSOCIATES, INC. ESTABLISHED ON-SITE BENCHMARKS FOR CONSTRUCTION CONTROL AT LOCATIONS NORTH AND SOUTH OF THE PROJECT SITE.

T:\LE025 JOB 105  
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| NO. | DATE | DESCRIPTION | BY |
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**BLACKWELL & ASSOCIATES, Inc.**  
PROFESSIONAL LAND SURVEYORS & CIVIL ENGINEERS  
20 TEASDALE CIRCLE  
NANTUCKET, MASSACHUSETTS 02554  
(508) 228-9026  
www.blackwellsurvey.com

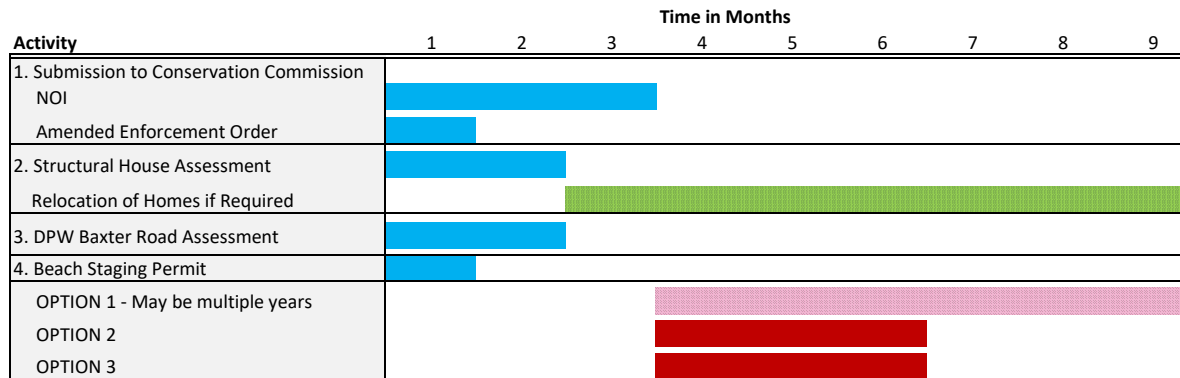
**RECORD DRAWING**  
**BAXTER ROAD SLOPE**  
**STABILIZATION PROJECT**  
PREPARED FOR: SIASCONSET BEACH PRESERVATION FUND  
1 INCH = 40 FEET MARCH 4, 2016

Design/Drawn by: **SHEET 1 OF 1 B-7275**  
Approved by: **3/4/16**

**Table I**  
**Geotube Removal Timeline**  
**Baxter Road Stabilization Project**  
**Nantucket, MA**



H&A File No. 134002  
 Date: 22 December 2022



## **Quarterly report from the Coastal Resilience Advisory Committee (CRAC) to the Select Board for October to December 2022.**

### **HIGHLIGHTS FROM THE QUARTER:**

- The Committee wrote a letter of support for the August 11 Conservation Commission letter to Mass DEP. The committee recommended that the Select Board co-sign the letter as CRAC is advisory to Select Board. The Select Board approved, and the joint letter was sent on December 6, 2022.
- CRAC spoke with the Nantucket Historic Association about their climate resiliency planning, including their 2018 “Flood Resiliency Report & Facilities Capital Expenditure Forecast Plan”; a planned WPI project to look at building adaptation for the Whaling Museum; and the December 2022 Climate Change Symposium they are hosting.

### **COASTAL RESILIENCE PLAN (CRP) ACTIVITIES:**

CRAC conducted a 1 year review of the status of the Coastal Resilience Plan’s 40 recommendations to document their progress. Two projects are essentially completed or established as ongoing efforts:

**Recommendation 1-5 Coastal Resilience & Sustainability Interdepartmental Working Group** and **Recommendation 1-9 Shoreline Change Monitoring Program.**

There is a new page on the Town’s website for the Shoreline Change Monitoring Program at <https://www.nantucket-ma.gov/2628/Shoreline-Change-Monitoring-Project>

One other project is partially completed. CRAC received an update in the spring that the first phase of **Recommendation 4-3 Coastal Erosion Mitigation and Dune Resilience** was completed with the development of [this report](#) by NCF and Trustees of Reservations.

19 other recommendations from the CRP are in various stages of development, and 18 remain to be started.

### **OTHER BUSINESS**

The Massachusetts Coastal Flood Risk Model (MC-FRM) maps showing the projected “Probability of Coastal Flooding” for the Present (2020), 2030, 2050, and 2070 are now available as layers on the Town’s GIS system, making them freely available to the public. To access them at <https://nantucketma.mapgeo.io/datasets/properties>, click on Themes on the top right, and expand the selection for Emergency Preparedness.

This availability of the maps, which were recommended by and used in the Coastal Resilience Plan, will allow the Committee to present its updated Sea Level Rise recommendation to the Select Board in the first quarter of 2023.

## Requests & Recommendations:

- Are there current or upcoming issues for which the Select Board would like the CRAC's advice?
- The CRAC requests that the Select Board specifically list as a third goal in the Environmental area of their Strategic Plan the implementation of the 40 recommendations of the CRP over the next ten years.

### AREA OF STRATEGIC FOCUS:

## Environmental Leadership



### ASPIRATIONAL STATEMENT:

Nantucket residents and visitors share responsibility for the long-term sustainability of our beautiful island. We recognize our stewardship of the land, air, and water and work to ensure our community is resilient and self-sufficient. Other communities look to Nantucket to learn how to care for the natural environment.

### GOALS:

- Provide data-driven recommendations on island-wide solid waste management guided by principles of sustainability.
- Finalize an island-wide, long-term water quality management plan that addresses ponds, harbors, stormwater, and wastewater with specific ways/methods to measure improvement.