Engineering, Planning
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MILONE & MACBROOM®

November 8, 2013

Ms. Kara Buzanoski, Director
Department of Public Works
Town of Nantucket
188 Madaket Road
Nantucket, MA 02554

RE: Emergency Monitoring of Baxter Road
Nantucket, Massachusetts
MMI #2967-11

Dear Ms. Buzanoski:

This letter is intended as follow-up to our telephone discussion yesterday. Based on Wednesday night's Conservation Commission meeting, it seems clear that installation of geotubes at the base of the bluff from 85 to 107a Baxter Road will be delayed.

We understand that some 30 homes are located on Baxter Road north of Bayberry Lane. The eastern edge of Baxter Road is located approximately 40 feet from the top of the current bluff location between 85 to 91 Baxter Road and approximately 30 feet from the top of the bluff from 99 to 105 Baxter Road. Milone & MacBroom, Inc. recommended in September 2013 that the town aggressively pursue development of an alternative access plan for Baxter Road, and we understand that this is underway. We continue to believe this is an important step for the town. In the meantime, we remain concerned about the public safety implications associated with use of Baxter Road, particularly with no toe stabilization in place.

Milone & MacBroom, Inc. has reviewed the site conditions and conferred with Mark Haley of Haley & Aldrich (H&A). As you know, H&A is a well-respected geotechnical engineering firm that has been hired by the Sconset Beach Preservation Fund to assist with geotechnical engineering associated with the bluff. Based on our discussions with H&A and our knowledge of the area, we recommend the following action to protect public safety in this area:

a. Place stakes along the top of the bluff at a distance 25 feet from the eastern edge of the pavement on Baxter Road to monitor the distance between the road and the bluff. The town can maintain travel on Baxter Road until such time as the top of the bluff is 25 feet or less from the edge of pavement. When the top of the bluff is within 25 feet of the pavement edge, the road should be closed to traffic until a detailed assessment can be completed by a geotechnical engineer.

b. Monitor the vertical scarp at the top of the bluff. When the scarp is higher than eight to 10 feet, failure of the scarp can be expected, and monitoring of the area should be performed at a minimum of weekly for signs of failure.

c. Prior to nor'easters, the town should close Baxter Road north of Bayberry Lane and visually inspect the roadway and bluff prior to reopening. Monitoring should include verifying the stakes are still in place and looking for cracking and sloughing of soils on the flat area at the top of the bank. Visual observation should also be conducted from the beach to see if the slope is undermined in any locations.

d. Install orange construction fencing five feet from the eastern edge of the pavement. Signs should be posted on the fencing that read: "Danger! Stay back from bluff edge."

e. Notify all property owners north of Bayberry Lane that closure of Baxter Road may occur before and during storm events. In addition, if additional failure of the slope occurs then permanent closure may be necessary.

The intent of these measures is, in our opinion, critical to protecting public health and safety. Please do not hesitate to contact me with any questions or concerns regarding this information.

Very truly yours,

MILONE & MACBROOM, INC.

Nicolle E. Burnham, P.E.
Principal

cc: Mark Haley – Haley & Aldrich

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