



BEALS + THOMAS

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April 4, 2017

Ms. Martha A. Morrison, Chair, Topsfield Planning Board
c/o Ms. Donna Rich, Topsfield Planning Board Coordinator
Town of Topsfield
Town Hall, 8 West Common Street
Topsfield, Massachusetts 01983

Via: Email to morrismh@bc.edu, drich@topsfield-ma.gov
and First Class Mail

Reference: Peer Review Soil Evaluation
Rolling Green Elderly Housing Development
470 Boston Street
Topsfield, Massachusetts
B+T Project No. 2814.00

Dear Ms. Morrison and Members of the Board:

On Monday, April 3, 2017, Paula A. Thompson, PE of our office observed the excavation of a deep test hole at the northwest corner of proposed Underground Infiltration System #1 with Ken Knowles and Alex Parker, soil evaluators from Eaglebrook Engineering & Survey, and Dave Bond from the Town of Topsfield.

The purpose of the test hole was to perform a final soil evaluation to determine the estimated seasonal high groundwater table to ensure that Underground Infiltration System #1 was designed to meet the required minimum two-foot offset from seasonal high groundwater.

We observed topsoil and subsoil layers to a depth of 28", a fine to coarse sand with gravel to a depth of 54", fine to very fine sand to a depth of 121", and a sandy loam layer to the bottom of excavation (143"). No evidence of seasonal high groundwater (mottling) was observed to a depth of 128". Groundwater was observed weeping into the test hole at 128" and we observed prominent mottling at 136". Due to the depth of the test hole and instability of the sand, we were not able to observe mottling with certainty below the groundwater weep at 128" and therefore we determined seasonal high groundwater to be at the 128" depth.

Based on an existing ground elevation of approximately 68.5', seasonal high groundwater is elevation 57.8'. The Drainage Plan (C-4A) by Allen & Major indicates that Underground Infiltration System #1 is designed with a bottom of stone elevation of 60.0 which provides for the minimum two-foot offset from seasonal high groundwater.

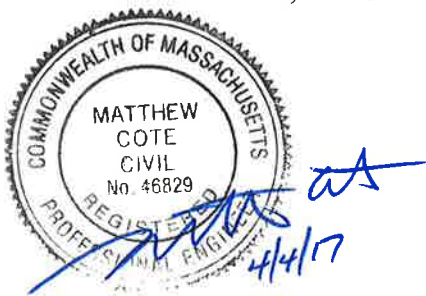
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Town of Topsfield
April 4, 2017
Page 2

We will be available at the Public Hearing scheduled for April 4, 2017 to present the results of our previous reviews and will be available for discussion regarding the results of our observation.

We appreciate the opportunity to assist the Town of Topsfield with the review of this Project. Please do not hesitate to contact our office with any questions.

Very truly yours,

BEALS AND THOMAS, INC.



Matthew Cote, PE
Senior Civil Engineer



Paula A. Thompson, PE, LEED AP
Senior Civil Engineer

PAT/MC/RPK/jyb/281400LT004