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April 4, 2018

Eric Knapp
Zoning Enforcement Officer
Town of Clinton
54 East Main St
Clinton, CT 06413

SUBJECT: 18 Nod Road
Application SE/CAM 18-007
DTC No.: 16-157-126

Dear Mr. Knapp:

As requested, we have completed our review of revised plans and application materials provided for the above referenced application. The new information reviewed consisted of the following:

- Plan set entitled "Site Plan Prepared for 18 Nod Road LLC, 18 Nod Road, Clinton, Connecticut"; consisting of 3 sheets; dated January 15, 2018, revised through March 26, 2018, prepared by: Thomas Stevens and Associates, Inc., scale 1"=20'.
- Report entitled "Drainage Report, 18 Nod Road, Clinton, Connecticut", dated March 29, 2018, no revisions, prepared by: Thomas Stevens and Associates, Inc.

Based on this review, and following the numbering convention of our March 28 letter, we offer the following comments:

1. A new drainage report has been provided with the revised plan set. We have reviewed this report and have the following comments:
    a. As noted in our previous comment, most of the existing site runoff is transmitted via sheet flow to neighboring properties to the southeast. Most of the proposed site runoff drains via piped flow to the existing Town owned catch basin at the northeast corner of the site. Calculations are needed accurately reflecting existing and proposed runoff to this catch basin to ensure that the capacity of this structure is not exceeded, and that the proposed development does not cause an increase in peak runoff at this point.
    b. The proposed stormwater storage galleries are generally sized to accommodate the first 1 inch of rainfall across impervious areas of the site and appears to be in conformance with CT DEEP mandated Water Quality Volume for infiltration. Unfortunately, the configuration of the proposed galleries does not accommodate any effective stormwater storage for attenuation of peak site runoff. We estimate that in the proposed condition, the total site runoff from a 10 year storm event is in excess of 15,000 CF. Since only about 3,500 CF of storage is provided, the majority of site runoff, including the peak site runoff will occur well after the storage basins are already filled. It might be possible to reconfigure the current design to ensure that storage

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volume is available through the peak of the storm event, but additional onsite storage will likely be needed.

c. Standard engineering practice is to perform a hydrograph based volumetric analysis of site runoff. This method is recommended by CT DEEP in their guidance documents on stormwater and erosion control and is applicable to virtually all sizes of development. A hydrograph-based assessment allows for time stepped accounting of storm flows from the beginning of the storm to the end; factoring in site runoff, storage volumes, basin outflows, and infiltration during all phases of a storm.

2. Top of wall elevations have been provided. No bottom of wall elevations was included, but a 4 foot maximum height is cited. A detail has now been provided. We would have liked to see accurate bottom of wall elevations, but no further plan revisions are requested at this point.
3. The plan has been revised to shorten the proposed building, allowing more space on the site to pull grading and erosion control measures within the existing property limits.
4. A detail on the proposed stormwater management galleries has now been provided.
5. The invert differential has been increased. See further discussion on system function in Comment 1.

Please review the above comments with the Board, and contact the undersigned if you have any questions.

Sincerely,

J. Andrew Bevilacqua, P.E.
Associate & Manager of Civil Engineering
DTC, Inc.

cc: Thomas A. Stevens & Associates (via e-mail)

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