

February 23, 2023

Mr. Chuck Tirone, Conservation Administrator
Town of Reading
16 Lowell Street
Reading, MA 01867

Re: Small Lane Extension
Response to 12/22/2022 Peer Review comments (Horsley Witten Group)

Mr. Tirone;

This letter serves as a written response to the December 22, 2022 stormwater peer review letter prepared by Horsley Witten Group. Responses are provided to each “Standard” referenced in the letter. Accompanying this written narrative is the updated Civil Plan Set (revision date 2/22/2023 with 8 plan sheets) and the updated drainage report dated 2/23/2023 prepared by Sullivan Engineering Group, LLC under separate cover.

Standard 1: No further action taken...appears peer review agrees Standard 1 is meet.

Standard 2:

- a. The HydroCAD model was adjusted in the Predevelopment and Postdevelopment scenario for existing wooded areas to be modeled as “good”.
- b. A minimum time of concentration of 6 minutes was used in proposed subcatchments 2S and 3S.
- c. Conceptual house footprints are shown on the design plans and modeled in the HydroCAD analysis to demonstrate sufficient capacity within the detention/infiltration basin for all storm events.
- d. “De Minimis” Stormwater Discharge for subcatchment 1S meets criteria of the MSH Volume 3, Chapter 1, page 35 as follows.
 - a. Physical site conditions preclude installation of a TSS treatment due to lack of space between the wetland and road and lack of head differential.
 - b. The discharge is 0.12 cfs for the 2 year 24-hour storm (< 1 CFS)
 - c. The whole site drains to common wetland with a TSS weighted average of 92% (> 80%)
 - d. Stormwater outlets to common wetland
 - e. Rip-Rap spillway at the detention basin outlet to reduce the velocity of discharge meeting Standard 1
 - f. Standard 2 and Standard 3 are meet for this site (see drainage report)
 - g. Standard 4 is meet
 - h. The size of the drainage area contributing runoff to the untreated outlet has been reduced to the maximum extent feasible (2,120 s.f.)
- e. No action required
- f. The inlet and outlet invert elevations of the drain pipe are clearly noted for the Outlet Control Structure on the plan sheets.

- g. Low impact development drainage solutions were evaluated for this site but were found not suitable for this site construction. An original design proposed infiltration swales along the gutter line of the roadway (curbing would be eliminated and country drainage would exist). Due to the proximity to the wetlands with the roadway, the Commission asked for alternative drainage design to be used.
- h. No action required.
- i. A note was added to the plan set for the existing 12" V.C. drain pipe to be removed.

Standard 3:

- a. A mounding analysis has been provided within the drainage report

Standard 4:

- a. No action required
- b. Total Phosphorus % removal worksheet has been provided in the drainage report.
- c. "De Minimis" Stormwater Discharge for subcatchment 1S meets criteria of the MSH Volume 3, Chapter 1, page 35 as follows.
 - Physical site conditions preclude installation of a TSS treatment due to lack of space between the wetland and road and lack of head differential.
 - The discharge is 0.12 cfs for the 2 year 24-hour storm (< 1 CFS)
 - The whole site drains to common wetland with a TSS weighted average of 92% (> 80%)
 - Stormwater outlets to common wetland
 - Rip-Rap spillway at the detention basin outlet to reduce the velocity of discharge meeting Standard 1
 - Standard 2 and Standard 3 are met for this site (see drainage report)
 - Standard 4 is met
 - The size of the drainage area contributing runoff to the untreated outlet has been reduced to the maximum extent feasible (2,120 s.f.)

Standard 5:

- a. No action required

Standard 6:

- a. No action required

Standard 7:

- a. See response to Standard 4(c) above.

Standard 8:

a-c: Comments recommended will be incorporated into a future Erosion and Sedimentation Plan provided to the Commission prior to construction

Standard 9:

- a. O&M plan provided in the drainage report
- b. The O&M plan will serve as a stand alone document, with responsible parties noted
- c. The roadway will remain "private" since the existing Small Lane is private. DPW will not be involved in the maintenance of the drainage system or roadway.
- d. A 20 foot wide easement has been provided between Lot 1 and Lot 2 which will serve as access to the detention basin. This easement area will be clear of any structures and fencing.
- e. Noted
- f. Simple sketch plan & simple log attached to O&M plan
- g. Snow stockpile reference in the Stormwater maintenance plan has been removed
- h. The reference of a "parking lot" in the Stormwater maintenance plan has been removed.

Standard 10:

- a. Agreed

If you have any questions or comments please feel free to reach out to me to discuss.

Very Truly Yours,



Jack Sullivan, PE

Cc: Janet Carter Bernardo, PE – Horsley Witten Group
Ann Marton – LEC
Maureen Herald – Norse Environmental