

From: Jonathan R. Earle
Sent: Friday, December 01, 2017 3:01 PM
To: Amanda L. Lessard; 'Dustin Roma (dustin@dmroma.com)'
Cc: Ben Smith; Douglas Fortier; Gretchen A. Anderson; Christopher S. Hanson
Subject: 17-17 River Road Subdivision - Review Comments

Amanda & Dustin,

I have reviewed the following information submitted by DM Roma Consulting Engineers as part of the Final Major Subdivision application for this project and offer the following comments. For clarity, I am including my review comments from October 11th in red and responses to these comments and any new comments in blue.

- Major Subdivision Application dated November 20, 2017.
 - Subdivision plans and details (Sheets 1-6) dated November 20, 2017.
1. A waiver has been requested for the high intensity soils survey based on the homogenous nature of the medium intensity soils. The stormwater modelling and treatment plan indicate that the soils are in hydrologic soils groups A, B/D, and D. The waiver seems reasonable, however, consider alternate justification for requesting this waiver. This waiver was granted by the Planning Board at the October 23rd meeting. No further comment.
 2. A waiver has been requested for granite street monumentation. The request to install granite monuments on one side of the road with capped rebar on the other side is reasonable and consistent with other recent private road subdivisions approved by the Board. This waiver request was withdrawn by the applicant at the October 23rd meeting. No further comment.
 3. The waiver for the roadway cross section with an 18' wide paved travel way and 2' gravel shoulders is reasonable. However, I have concerns with 2" of 9.5mm pavement being proposed for the 18' travel way. I would support the waiver if the pavement section were to be constructed with 2 ½" of binder (12.5mm) and 1 ½" of surface (9.5mm) to be consistent with our major private road and minor local street standards. The Typical Roadway Section detail on sheet D-1 meets town's Minor Private Road standards for roadway width and pavement/gravel thicknesses. The roadway cross section and plan and profile sheets may need to be revised to show sidewalk or a wider shoulder pending the Board's decision on a waiver request for this criteria.
 4. A waiver for the hydrogeologic assessment has been requested for the project. This waiver request is reasonable as stated based disposal field locations in relation to the property line along with the sand and gravel aquifer being located in the open space. However, I would recommend adding proposed well locations or well exclusion areas to ensure that adequate separation distances are maintained between each lot in this instance where the lots are not being developed by the applicant. A waiver was granted by the Planning Board at the October 23rd Planning Board meeting. No further comment.
 5. An entrance permit will need to be obtained for the project. The urban compact line is located on a utility pole directly across the road from the entrance to the site from River Road. I have contacted Tim Soucie from MDOT to determine whether the permit will be issued by the Town or MDOT. The engineer has indicated the entrance permit for this driveway falls under the jurisdiction of MDOT rather than the Town. The approved permit will be forwarded to the Town once the applicant receives it.

6. The project will need to comply with the Town's post construction stormwater ordinance since it is in the urbanized area and disturbs more than 1 AC (MS4 project). Add the standard note to the approved plan accordingly. Comment has not been addressed.
7. An 18" culvert is located within the River Road ROW. When constructing the road, it seems likely that this culvert will, at a minimum, need to be removed and reset (or replaced). Indicate on the plans along with the existing/proposed inverts for the culvert. Comment has not been addressed.
8. Stormwater
 - a. I reviewed the water quality calculations and agree that the project meets Chapter 500 General Standards for water quality. I have reviewed the revised water quality calculations for the revised plan and have no comments. Submission continues to meet Chapter 500 General Standards for water quality.
 - b. A waiver request for the flooding standard was noted in the stormwater management report and is reasonable. This waiver request was not included in the waiver request form in the application. A waiver request for the flooding standard was granted at the October 23rd Planning Board meeting. No further comment.
 - c. A majority of the stormwater treatment BMPs are located in Lot A which is outside of the subdivision. Please include easement language that would allow the homeowner's association permission to maintain these BMPs on a lot that is not part of the subdivision. Easement language was not included in the final plan submission.
 - d. Include the stormwater treatment table from sheet TP-1 on the subdivision plan (Sheet S-1). Our concern is that the treatment calculations are based on the developed condition with the tree line as shown today. In the future (greater than 5 yrs.), the property owner would be allowed to do additional clearing that could decrease the amount of developed area treated by a BMP. Stormwater treatment table from sheet TP-1 was not included. Please include a table or note on the subdivision plan that identifies the maximum amount of impervious and developed areas allowed and allocated to each lot. The project is treating 94% of the developed area so being close to the 80% threshold is less of a concern. As mentioned, once the 5-yr limit has passed, the property owner could cut and create more developed area and this comment is intended to make sure the project's water quality goals are met.
9. Hammerhead turnaround - I'm formally adding this note to my comments that Doug and I have reviewed the plans and agree the waiver request to provide a cul-de-sac is reasonable.

Jon Earle, PE
Town Engineer
Town of Windham

Office: (207) 894-5900, ext. 6124
Cell: (207) 212-1802
www.windhammaine.us