From: Jonathan R. Earle

Sent: Wednesday, August 16, 2017 10:53 AM
To: Amanda L. Lessard; 'Jeff Amos, P.E. '
Cc: Douglas Fortier; Gretchen A. Anderson
Subject: Kettle Estates - Subdivision Review

Jeff & Amanda,

I have reviewed the following information submitted by Terradyn Consultants, LLC as part of the Subdivision application for Kettle Estates and offer the following comments:

- Subdivision & Site Plan Application dated August 7, 2017.
- Plan Set with 12 sheets, prepared by Terradyn Consultants, LLC, July 3, 2017.
- The proposed Acorn Lane Extension includes the construction of approximately 180' of road on within the public way. This portion of roadway does not meet the local public road standard. In discussion this with staff, the applicant would need to obtain an easement from the Town for summer and winter maintenance for the portion located in the public way if not constructed to the public standard.
- 2. The proposed construction detail for Acorn Lane Extension does not meet the minor private road standard. As designed, this would need a waiver from the Board for constructing this to a lesser standard even as an emergency access only.
- 3. In discussions with Fire Chief Brent Libby, he noted that his staff would not respond to an event via Acorn Lane Extension due to the fact that it is located outside of the 21 duplex units. As designed, all emergency response to the site would come from Dusty Rhodes Lane and likely cause a bottleneck to the rest of the development depending on the severity of the event. That said, the intent to construct Acorn Lane Extension as an emergency access only does not seem practical based on the proposed layout.
- 4. The traffic study supports the concept of having all traffic from the development use Dusty Rhodes Lane as the primary vehicular entrance & egress from the site. Site distance, trip generation, level of service, etc. are all adequate based on the analysis. A waiver from the requirement to have two entrances to the project seems reasonable. One option would be to construct a 10' multiuse path where the current Acorn Lane extension is proposed.
- 5. The application and plans indicated that Dusty Rhodes Lane will be upgraded to the major private road standard. The detail included on Sheet C4.1 does not meet the standard. The cross section should be a 20' travel way, 2' paved shoulders on each side, and 2' gravel shoulders on each side for a total of 28'.
- 6. Will there be geotechnical investigation of the existing gravel material on Dusty Rhodes Lane to determine if the gravel meets an MDOT Type D spec? Is the intent to box cut and fully reconstruct or regrade and add gravel as necessary?
- 7. The project is located in the Town's urbanized area in addition to the Pleasant River watershed (the Town's high priority watershed). A note will need to be added to the approved plan indicating MS4 compliance with construction and post construction requirements.
- 8. As of this review, we have not received the stormwater calculations for water quantity and quality. The report narrative indicates that both of these standards have been met.
- 9. Sheet C2.0 A note near station 2+00, RT, states "Contractor to construct shallow swale 2' off edge of Lane. Drain to catch basin.". There does not appear to be any catch basins proposed at the intersection of Dusty Rhodes and Varney Mill Road downstream of the two proposed catch

- basins at Sta 3+40. Please clarify. The ditch on Varney Mill Road should be verified to ensure that it can accommodate any addition peak runoff flows from the reconstructed portion of Dusty Rhodes Lane.
- 10. Sheets C2.0 & 2.1 The proposed installation locations for silt fence show gaps in the installation location (between units 1&2 and 3&4, for example). Consider connecting these gaps to ensure sediment does not migrate onto the abutting properties during construction.
- 11. The high intensity soils survey waiver for stormwater analysis purposes is reasonable given the consistent nature of the site soils (Hydrologic Soils Group A). I agree that it would not add any value from a stormwater perspective.
- 12. As Amanda noted, a hydrogeologic analysis is required given the project's location in a sand and gravel aquifer and density. Analysis will need to include a nitrate plume analysis for each of the subsurface wastewater disposal fields.

Please do not hesitate to contact me with any questions.

Jon

Jon Earle, PE Town Engineer Town of Windham

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