

From: Jonathan R. Earle
Sent: Wednesday, August 29, 2018 2:29 PM
To: Amanda L. Lessard; 'Kirk Ball'
Cc: 'Matt Hancock'; 'David Fowler'
Subject: 17-23 Durant Homestead Subdivision Preliminary Plan Review Comments

Amanda & Kirk,

Below are my review comments for the Preliminary Subdivision Application for the Durant Homestead Subdivision project. Please do not hesitate to contact me with any questions.

1. Waivers:
 - a. The justification for the waiver request from providing public water to the project was that it would likely affect preservation of open space. With any public water main being located within either an existing ROW (Chute Road) or future town ROW (Penny Whistle Drive), I'm unclear how this would impact the open space when the main would be installed in areas already cleared and outside of open space?
 - i. Will the homes in the subdivision be sprinkled? The current ordinance requires all homes greater than 1000' from the project intersection to be sprinkled. It should be noted that there has been some discussion and ordinance language changes proposed to allow cisterns, fire ponds, or other means of fire protection instead of sprinklers, but nothing has been enacted at this time.
 - b. Open space – A waiver from the requirement for the project's open space to be contiguous has been requested. The request seems reasonable since separate public access points have been provided for accessing the two separate portions of open space. The open space calculations need to be shown on the approved subdivision plans. Is 50% of the open space suitable for development as required in the ordinance?
 - c. Dead end streets – A waiver from constructing a second hammerhead turnaround at the 2000' mark of the proposed road has been requested. This request is reasonable based on the proximity of the cul-de-sac being 350' from where the 2nd hammerhead would need to be located.
 - d. Landscape plan – A waiver from providing a landscaping plan has been requested. The ordinance requires a street tree every 50' and existing trees are allowed if they are protected during construction. Locations of existing trees to be saved or new trees planted need to be shown on the plan to demonstrate meeting this requirement.
2. Cost estimate – The overall cost estimate provided appears reasonable for the scope of the project. A more detailed unit price cost estimate will be required prior to construction for the purposes of developing the project's performance guarantee amount.
3. Stormwater :
 - a. Consider using the two letter soil type abbreviations and providing a table with each soil type and its respective hydrologic soil group on the pre and post development plans for ease of review.
 - b. Show Tc flow paths for each subcatchment on both the pre and post development plans.
 - c. The flooding standard has been met with each point of analysis in the post development condition at or below the peak flow of the predevelopment condition.

- d. Stormwater quality calculations were provided meeting MDEP requirements to treat 90% impervious and 75% of the developed areas with lot by lot allowances shown on the treatment plan.
 - e. The proposed tree line on the plan should be reviewed and revised to reflect actual areas to be cleared and assumptions made for each lot's impervious and developed areas.
- 4. Nitrate Analysis – The report from MAI summarized that nitrate levels in the groundwater are at or below 10 mg/L at the property line. The nitrate plume from Lot 24 appears to extend just slightly past the property line onto the ROW of Chute Road. Please clarify.
- 5. Traffic:
 - a. Show the sight distances at the intersection of Penny Whistle Drive and Chute Road on the approved plan.
 - b. The traffic study provided by Maine Traffic Resources was reviewed and I agree with the assessment that no offsite improvements are necessary to support the project.
 - c. Additional clearing on Lot #1 was recommended to increase sight distance above the Town's ordinance requirement. Will this clearing be completed as part of the project? If so, this should be shown on the plans and provisions made in the association documents to maintain this clearing.
- 6. Plans:
 - a. Road profile – The profile shown shading which seems to represent gravel and bedrock material below subgrade, but is shown in seemingly random locations on the profile. Please clarify.
 - b. Road cross section – The cross section provided exceeds the requirement for a minor public road by providing 1' extra of paved shoulder on each side of the road. Gravel and pavement thickness provided meet the public road standard.
 - c. Show a location for installing a stop sign at the intersection of Penny Whistle Drive and Chute Road and provide an installation detail.

Jon Earle, PE
Town Engineer
Town of Windham

Office: (207) 894-5900, ext. 6124

Cell: (207) 212-1802

www.windhammaine.us