



November 11, 2020  
20561

Maureen O'Meara, Town Planner  
Town of Cape Elizabeth  
320 Ocean House Road  
P.O. Box 6260  
Cape Elizabeth, Maine 04107

**Subject: Magnolia Terrace Private Road and Resource Protection Permit Review**

Dear Maureen:

We have received and reviewed a submission package dated October 30, 2020 for the subject project. The package included an October 30, 2020 cover letter from John Mitchell of Mitchell & Associates, a seven-drawing plan set dated October 30, 2020 as prepared by Mitchell & Associates, and supporting documentation. Based on our review of submitted material and the project's conformance to the technical requirements of Section 19-7-9 Private Road Review Completeness and Section 19-8-3 Resource Protection Permit Completeness, we offer the following comments:

1. The applicant desires to create a new lot (Lot 2) beyond the end of Alexander Drive by constructing a new 380+/- linear foot private roadway to be called Magnolia Terrace and by splitting the Lot 2 land area from the existing 10.17-acre lot (Lot 1). The new roadway will create frontage for the additional lot to be formed from the overall property. An on-site septic system will be installed to serve the new lot's sanitary sewer needs. Underground water, electrical, telephone, and cable television utility connections will also be extended to serve the new lot and a new turnaround is proposed to be constructed for emergency vehicle use.
2. We understand that the Board will be conducting a Completeness Review at their upcoming meeting. Many of our review comments as presented in this letter should be considered beyond the completeness level and have been provided here to facilitate future submittals. While we have attempted to provide a comprehensive list of our comments, it should be noted that future additional or revised submitted information may result in additional review comments.
3. The drawing set includes three survey related plans.
  - Sheet 1 is an Existing Conditions Plan. This plan shows a portion of the overall property's existing topography, on-site wetlands and their associated buffers, and references a 1998 boundary survey as prepared by Sebago Technics, Inc. for the entire 10.17-acre property.

- Sheet 2 is entitled Boundary Survey appears to be a copy of the original September 8, 1997 Sebago Technics' Boundary Survey for the overall property overlaid with a Mitchell & Associates title block. A note has also been added in a box in the center of the plan indicating that a portion of the boundary has been adjusted since the boundary plan was done and to refer to Sheet 1. We are having difficulty correlating the boundary for the Lot 1 area between the two plans. It would also seem to be more appropriate to insert the Sebago Technics drawing as a standalone reference plan rather than put a new title block on it and add a vague note as to the boundary changing in an area after the survey had been done.
- Sheet 3 is entitled Overall Site Plan and appears to be set up to be sealed by a Professional Land Surveyor and recorded for only Lot 2's boundary limits and the future Magnolia Terrace right of way. Again, the 1998 Sebago Technics Boundary Survey is referenced for the perimeter, but there is no indication that the newly created Lot 1 boundary has been defined to a boundary survey level.

The designer should explain the intent of the three plans and confirm how the new boundary of the remaining Lot 1 will be presented as a recordable boundary survey.

4. As shown on the Wetland Impact Plan exhibit on Sheet 6, the applicant is proposing to construct the new roadway by relocating the alignment of the existing driveway to Lot 1 instead of rebuilding and widening the existing driveway footprint to accommodate the wider roadway section. In doing so, the Lot 2 buildable area is maximized, however, the existing 3,550 square foot RP-2 Wetland along the southern side of the existing driveway will be entirely impacted. The Planning Board should review the siting of the new road with the applicant to determine if the placement of the roadway within the wetland is appropriately being considered.
5. The applicant is also requesting a waiver of the need to submit a formal stormwater report with supporting calculations. The proposed road will be an upgrade of an existing driveway to the existing home on Lot 1 and will total 6,280 square feet of impervious surface area which will result in a minor increase of 2,045 square feet of impervious area. We agree with the applicant and the designer's assertion that the improvements and extension to the existing roadway will have a negligible impact on the stormwater runoff characteristics of the project area. Therefore, we do not believe that a stormwater management plan with supporting calculations will need to be submitted.
6. To mitigate for the minor increase in impervious surface area, the designer is proposing to create a rain garden to the northwest of Station 1+50 which is westerly of a proposed 12-inch culvert crossing under Magnolia Terrace. It is not clear on the Grading and Drainage Plan view on Sheet 5 if the culvert is intending to discharge into the rain garden. The intent of the discharge flow from the culvert should be clarified. Also, while the note on this sheet that there should be coordination between the designer and the contractor prior to construction is positive, the designer should provide more design information and a plan view of the rain garden contours and planting layout so that the rain garden can be clearly approved and constructed. The entity responsible to inspect and maintain the rain garden should also be clearly called out on the plan and an inspection form should be provided to that entity so that they are aware of the items to review and repair/replace if necessary.

7. The applicant is requesting a construction waiver of the standard 22-foot wide private local road to a 14-foot wide private roadway with 2-foot grassed shoulders. Historically, we typically have not supported such waivers in past projects, however, we do understand that the Planning Board does have the right to grant these types of waivers so we defer to the Planning Board for a final decision on this waiver.
8. The applicant should also be requesting a drainage related waiver for roads to have an underground enclosed drainage system as well as a waiver for the need to install curbing.
9. The applicant is requesting a waiver of a 3:1 sideslope standard to a 2.5:1 slope standard with the 2.5:1 slope being covered with an erosion control blanket. As the Town road standards are devised based on an enclosed storm drainage pipe system with no ditches, there does not appear to be Town 3:1 sideslope criteria. Regardless, we support the installation of a 2.5:1 slope being covered with an erosion control blanket as an accepted design practice when steeper than 3:1 sideslopes are desired.
10. The applicant is also requesting a waiver of the need to submit a traffic study. As there will be only one additional home created by this project, we support this waiver request.
11. Resource Protection permit waivers should also sought for the submission of high-intensity soil mapping and topographic mapping of contours in the site wetlands.
12. The applicant is requesting a waiver of the requirement to set four-inch square granite monuments along the right of way at each point of curvature and angle point on both sides of the road and at every property line intersection. Instead, the applicant is proposing to set iron rod pins at locations as shown on Sheet 3, the Overall Site Plan. We believe that Public Works Director, rather than the Planning Board, has the latitude to grant these changes. We suggest the designer coordinate with the Public Works Director to review the type and locations of the road right of way monumentation.
13. The Grading and Drainage Plan on Sheet 5 appears to indicate that surface drainage near the turnaround area will be allowed to be conveyed across the traveled way which is in direct conflict with the Town road standards. As this situation would become a road safety issue in the winter months, we would not support a waiver of this standard. The designer should review the plan and incorporate a culvert and/or additional drainage ditches to ensure that surface water is not allowed to drain over the roadway surface.
14. The notes on the Grading and Drainage Plan view on Sheet 5 indicate that only the first fifty feet of Magnolia Terrace is proposed to be paved and with the remainder of the roadway being gravel. The Typical Road Section on Sheet 7 conflicts with these notes as the Typical Road Section indicates the road will be paved. The designer should clarify whether the road will be paved or be surfaced with gravel and adjust the notes or the road section to be consistent. If the road is to be paved, the surface and the base pavement thickness should be consistent with the Road Pavement (Sta 0+00 to Sta 0+50) detail below the Typical Road Section on Sheet 7 as the pavement thicknesses shown on that detail match the Town private road standards.
15. The Typical Road Section indicates the road subbase gravel layer will be 18-inches in depth and the base gravel layer will be 6-inches in depth. The designer should review the depth of the

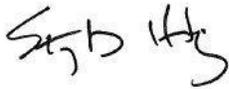
subbase layer as only 12-inches is required in the Town road standards. The depths of the subbase and base gravel layers should also be corrected on the Road Pavement (Sta 0+00 to Sta 0+50) detail to be 12-inches of subbase gravel and 6-inches of base gravel.

16. A road name sign should be added to the plans. Also, consideration on the installation of a stop sign at the beginning of Magnolia Terrace should be considered even though there will be a straight alignment with Alexander Drive at the roads' intersection. The Police Chief should be consulted for the proper placement of the stop sign at either the Magnolia Terrace intersection or the 90-degree bend approach of Alexander Drive.
17. The sight distance at the Magnolia Terrace/Alexander Drive intersection is shown on the Layout Plan on Sheet 4 as being 160-feet looking in the southeast direction which exceeds the 125-foot minimum Town road standard for a local road. The designer should add a sight distance measurement from this intersection looking in the southwest direction along Alexander Drive.
18. Note #2 in the Grading and Drainage Plan notes on Sheet 5 includes a discussion regarding the responsibility of the contractor to control mud tracking of adjacent roadways from the project site. This note should be expanded to include the installation of a temporary Stabilized Construction Entrance which is the primary means to control mud tracking and is detailed on Sheet 6.
19. Note #5 in the Grading and Drainage Plan notes on Sheet 5 indicates that the project team is to contact the Public Works Director to arrange for a pre-construction meeting. As this is a private road not subject to future Town acceptance, this request should be changed to be directed toward the Code Enforcement Officer.
20. The application materials refer to copies of several easements encumbering the property. It does not appear that these easements were provided. Nor were these easements shown or referenced on the survey related plans within the plan set. References and/or locations of these easements should be indicated on the survey related plans.
21. The application materials include an October 6, 2020 email from Portland Water District's (PWD) Adam Sellick indicating that the PWD has adequate water supply in the proximity to the project to meet the project's domestic needs. We also understand that the Fire Chief has requested that the applicant install a new NFPA approved residential sprinkler system within the new home to be built on Lot 2. We do not believe that a sprinkler system would affect the PWD's ability to provide a sufficient water supply to the project, but the designer should confirm this understanding.
22. The application includes an \$85,000 construction cost estimate in the Financial Capacity section, however, there is no actual estimate that has been provided to support the \$85,000 cost.
23. There are indications within the application narrative that the applicant will be exempt from needing a Natural Resource Protection Act (NRPA) permit from the Maine Department of Environmental Protection (DEP) review for the proposed 3,550 square feet of wetland impacts as the impacts are not to Wetlands of Special Significance (WOSS) and are below the DEP's 4,300 square foot of wetland impact threshold. While we agree that this is likely the case, the applicant should confirm with the DEP that an exemption for this project's impacts is valid.

24. Regardless of the DEP's permitting situation, the U.S. Army Corps of Engineers also regulates wetlands and a permit from the Corps will very likely be required for the project. The applicant should contact the Army Corps to ensure that all the necessary permits have been filed. A copy should be provided to the Town.

We trust that these comments will assist the Board during their deliberations on this project. Should there be any questions or comments regarding our review, please do not hesitate to contact us.

Sincerely,  
SEBAGO TECHNICS, INC.

A handwritten signature in black ink, appearing to read "SDH" followed by a stylized flourish.

Stephen D. Harding, P.E.  
Town Engineer

SDH:sdh

cc: John Mitchell of Mitchell & Associates