



3618138287

September 11, 2013

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

SUBJECT: Old Hayfield Lane
Private Road Review

Dear Maureen:

We have received and reviewed a submission package for a Private Road application named Old Hayfield Lane. The submission included an application package with an August 30, 2013 cover letter addressed to you and the Board Members from John Mitchell of Mitchell & Associates. Also in the package is a seven-sheet plan set dated August 30, 2013 of the private roadway design for Old Hayfield Road as prepared by JMA. We visited the site on September 9, 2013. Based on our observations at the site, the standards of Section 19-7-9(B), New Private Road Standards of the Town Ordinance, and our review of the submission package, we offer the following comments:

1. The applicant is proposing to construct a 334-foot private roadway with a turnaround at its end. This roadway is to provide access to 4.5 acres of property. No new lots are depicted on the current submitted material. A section of the road right-of-way has been developed to provide access to a private home.
2. Sight distance should be provided at the intersection of the proposed roadway and Reef Road.
3. Turnaround design standards of the Chapter 16 Subdivision Ordinance for a future roadway extension show that a 50-foot wide easement is the minimum requirement for the turnaround width. A 35-foot by 40-foot turnaround easement is shown on Sheet 2 of the plan set. The designer should extend the roadway so that a 50-foot minimum width is obtained, providing the appropriate separation between the turnaround and the property line of Julianne M. Prior. The radius of curvature should also be added to the plans.
4. It appears that the existing electric utility line was not included in the Utilities Plan on Sheet 3 of the Drawings. The existing and proposed symbols and abbreviations should also be consistent with the legend.
5. The designer has provided a road profile for Old Hayfield Lane. The roadway is proposed as having a 3% grade for the first 35 feet then transitions between a 3% to 5% slope which transitions into a 12% grade at Station 0+40. In order to meet Town Ordinance Standards, the first 50 feet of the roadway would need to maintain a 3% slope. The current design minimizes earthwork activities, creating less of a land

disturbance while protecting the existing oak trees along the property line of Matthew and Dawn Ham.

Strictly adhering to the 3% standard for the first 50 feet of the roadway would create additional excavation and additional effort in protecting the oak trees (possibly by the use of retaining walls) or result in the need to remove the trees unless the sideslopes could be steepened in a ledge cut section.

In order to develop the most feasible design, the designer should consider performing test pits to create a ledge profile. The Board would need to determine whether strictly meeting the 3% standard can be achieved without creating an adverse condition and, if not, whether waiving the standard in this instance is beneficial.

6. It should be noted that the Typical Private Road Section provided on Sheet 4 of the plan set shows a 14-foot paved roadway with 2-foot grass shoulders. Although this does not meet the Town of Cape Elizabeth Public Roadway Requirements, the detail is consistent with past projects which have been accepted by the Planning Board. However, in order to be accepted as a public road in the future, the 22-foot traveled way requirement will need to be met.
7. The pavement build-up in the "Bituminous Pavement – Roads" detail on Sheet 4 should match the section provided in the "Typical Private Road Section" detail.
8. A trench patch detail for the utility installation in Reef Road should be provided on Sheet 4.
9. Detail 2 on Sheet 5 should show the exact size and type of the water main pipe.
10. It appears that the bell hole shown in the earth trench of Detail 3 on Sheet 5 should be shown through the ledge trench.
11. Due to the steeper slope of the roadway, the designer should consider adding stone check dams in the ditches for erosion and sediment control to Sheet 6 of the plan set.
12. The silt fence is currently shown on the property of Matthew and Dawn Ham. The designer should ensure that all work stays within the limits of the paper trail boundary line unless a temporary construction easement is obtained.
13. The pre-development and post-development drainage study conducted by BH2M shows an increase in stormwater runoff between existing and proposed conditions. Lester Berry, of BH2M, concluded that the options for detention or treatment require an elevation drop and will most likely not be feasible due to possible ledge. While the increases are relatively insignificant, it would be a benefit to the drainage conditions to install a water quality treatment device at the intersection of the new roadway in Reef Road. Comments made in the stormwater submission indicate that this is not desirable due to likely ledge conditions. The Board may wish to request the applicant to conduct a more detailed assessment of the actual underlying soil conditions before excluding these treatment benefits.
14. The applicant is requesting a waiver of the allowed 5-foot offset from the centerline of the traveled way in order to protect the existing mature trees. Because the right-of-way is not a consistent width, the 5-foot offset allowance has technically not been met beyond Station 1+50 and appears to be approximately 8 feet at +/- Station 2+50. It does not appear that shifting the proposed roadway to meet the 5-foot offset standard after Station 1+50 will create an impact to the existing oak trees. The designer should revise the plans to meet the standard or provide a more in-depth description as to why the standard cannot be met.
15. It appears that several of these drawings relate to engineering details that should be signed and sealed by a State of Maine Licensed Professional Engineer.

Maureen O'Meara
September 11, 2013
Page 3

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,
AMEC Environment & Infrastructure, Inc



for Stephen D. Harding, P.E.
Town Engineer

SDH:cca

cc: Bob Malley, Public Works Director
Caitlyn Abbott, AMEC E&I

S:\360 Town of Cape Elizabeth\3618138287 Old Hayfield Lane\omeara91113 sdh.docx