



September 11, 2019
16211-01

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

Subject: Cunner Lane Private Road Review

Dear Maureen:

We have received and reviewed a submission package dated August 29, 2019 for the subject project. The package included an August 29, 2019 cover letter addressed to you and the Planning Board Members from Robert Metcalf of Mitchell & Associates along with supporting information and a three-drawing set of the project plans dated August 29, 2019. Based on our review of submitted material and the project's conformance to the technical requirements of Section 19-7-9, private road review, and technical applicable standards, we offer the following comments:

General Engineering Comments:

1. The applicant is proposing to convert a previously approved private accessway connection at the end of Cunner Lane roadway to a private road utilizing a portion of the existing concrete paver surfaced roadway that serves residential homes. This roadway appears to have a consistent paver surfaced width of 10-feet with 2-foot grass covered gravel shoulders within a right of way width of approximately 77.6 feet. This project also includes the installation of underground water storage tanks and a dry hydrant for fire protection purposes. A grass covered 10-foot wide gravel shoulder is proposed alongside the roadway to provide the Fire Department access to the dry hydrant.
2. We understand that the Board will be conducting a completeness review for this project at their upcoming meeting. Several of our following comments could be considered beyond the completeness level and have been provided here to facilitate future submissions and reviews of the project. It should be noted that additional submitted information may result in additional review comments.
3. The applicant is requesting a waiver from the road width requirement of 22-feet to the existing 10-foot wide paver surface with 2-foot wide grass covered, gravel shoulders on each side. Private road width reduction requests have been approved in the past and while we respect the 22-foot width standard, we understand that there are many instances where the standard should be reduced and defer to the Planning Board, as the decision-making body, to assess the merits of each road width reduction request on a case-by-case basis.

4. We understand that the new private road will need to meet the applicable local road standards as set forth in Chapter 16, Subdivision Regulations.
5. The applicant has also requested a waiver of the roadway standard that the road shall be centered in the right of way. Given the constructed location of the existing roadway within the property and that the area of the proposed right of way will encompass the underground water storage tanks and the dry hydrant, this waiver appears reasonable to grant.
6. The application also includes documentation from a local earthwork contractor, L.P. Murray & Sons, regarding the past construction process and materials used to construct the existing roadway. Having inspected several past roadway projects in Cape Elizabeth that have been constructed by L.P. Murray & Sons, we can confirm that they understand the Town requirements and the necessary steps to be taken to construct the roadway to meet the Town standards.
7. The Subdivision Regulations also require that an enclosed drainage system to be provided. The applicant may also consider requesting a waiver for an enclosed drainage system as the existing condition of the roadway drainage appears to be adequate and is not being proposed to be altered.
8. The applicant's designer has stated that since a minimal increase in new impervious surface occurs as part of the new shoulder construction for Fire Department access to the dry hydrant that a formal stormwater report with supporting calculations is not required. We agree with the applicant's assertion that the proposed improvements will create a negligible impact to the road's stormwater runoff characteristics and receiving areas. Also given that new impervious surface areas do not exceed 10,000 square feet, the project does not require a formal stormwater analysis report with supporting calculations.
9. We understand that the Fire Chief has been consulted as to the existing turnaround's ability to meet Town's emergency accessibility needs and has approved of the turnaround's current configuration so that no physical changes are proposed to the turnaround. The turnaround does contain a proposed turnaround easement area to supplement the proposed right of way configuration so that the entire turnaround paver surface is contained within either the right of way or the turnaround easement. The Fire Chief should also be consulted as to the appropriateness of the proposed gravel shoulder's dimensions in meeting the Fire Department's access needs to the new dry hydrant.
10. The plans do not indicate any new monumentation to depict location of the end of the private way and emergency access easement. The Public Works Director should be consulted to determine where such monuments, if any, should be placed.
11. The Grassed Gravel Turn-out detail on Sheet 2 indicates symbolically that there is grass over the 3-inch layer of crushed gravel base. As grass will likely grow poorly without loam the detail should indicated the presence and thickness of the loam over the gravel surface. Again, the Fire Chief should be consulted as to his approval of the grass surface over the gravel given the difficulty in maintaining such a surface especially during the winter and spring seasons.

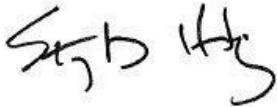
12. The Grassed Gravel Turn-out detail on Sheet 2 also indicates that a geotextile fabric to provide additional support will be added under the proposed gravel layers. The fabric is indicated to continue below the existing road's gravel buildup which will not occur. The designer should revise this detail to provide direction as to how the fabric will be treated at the edge of the existing road.

13. The designer should review the proposed grading of the new water storage tanks and associated gravel shoulder as it appears that the proposed 24-elevation contours may conflict with the stipulated 2-percent cross slope of the grass shoulder. An adjustment of these contours along with additional spot grades and runoff flow arrows may be necessary to convey the design intent and avoid confusion during construction.

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.



Stephen D. Harding, P.E.
Town Engineer

SDH:sdh

cc: Bob Malley, Cape Elizabeth Public Works Director
Peter Gleason, Cape Elizabeth Fire Chief
Robert Metcalf, Mitchell & Associates