



June 8, 2021  
17213-01

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

Subject: 287 Ocean House Road – Lumber Retail Store Site Plan Amendment Review

Dear Maureen:

We have received and reviewed a recent submission package for the subject project. The package included a June 7, 2021 cover letter from Brandon Binette of Northeast Civil Solutions with supporting documentation along with two drawings which have been revised from the originally approved plan set. The drawings consist of Sheet 3 of 5 - Site & Layout Plan dated June 7, 2021 and Sheet 5 of 5 - Construction Details dated May 28, 2021. Based on our review of the submitted material and the project's conformance to the technical requirements of Section 19-9 Site Plan Completeness, we offer the following comments:

1. As noted in our May 10, 2021 review comment letter, the applicant is proposing to amend the original development of a lumber retail store on the 0.93-acre parcel in the Town Center. The proposed amendments include the following items:
  - the removal of an earlier approved, but unbuilt exterior storage shed and the installation of the 8-foot-tall wooden fence with a gate which would then create an exterior storage area to the north of the site building,
  - the construction of a 10-foot section of a 6-foot-tall wooden fence to be constructed off the southwestern corner of the building to obscure the visibility of the exterior storage items located behind (to the west) of the existing building,
  - the allowance of the exterior and overnight storage of items located in front (to the east) of the existing building,
  - the removal of four parking spaces to allow for the new storage space to the north of the building and the placement of a new bike rack on a concrete pad in a currently grass surfaced area,
  - and the removal of the previously approved 1.25-inch surface course of hot asphalt pavement to allow the previously placed base course of pavement to be the only pavement material applied to serve the retail facility.
  
2. The applicant is requesting the Planning Board waive the placement of the 1.25-inch-thick surface pavement course which is often referred to as the wearing course. The plans indicate that a 2.25-inch-thick layer of 19mm pavement has been placed at the site as a base layer or as often referred to as the pavement binder course. This material is a courser material than would normally be placed as a surface course and is often referred to as the binder course. Given the uniqueness of this waiver request which I have never been asked to provide an opinion on during my 25 years as the Town Engineer, I have consulted with the Public Works Director, Jay Reynolds, and neither of us is in support of this waiver request.

As an overview, the base (or lower) layer of pavement has characteristics (aggregate size, asphalt content, etc.) that make it suitable for structural loading. The surface pavement layer characteristics are designed to be an effective wearing course, to protect the base layer pavement. Providing both layers, in areas where vehicles and other heavy loads are present, is the standard used in the construction industry. In the absence of the wearing course of pavement, the structural pavement will be the first and only layer to deteriorate. Deterioration of the base layer of pavement, due to the lack of a surface course, will result in shortened lifespan of the paved areas. Potholes and pavement unraveling will develop sooner. While the base pavement will provide coverage for the parking, storage, and circulation areas on-site, the lack of a surface course will decrease the performance of the pavement. Therefore, we do not recommend that the Board grant this waiver request.

3. The submission package also included a May 28, 2021 supporting letter from D&R Paving & Sealcoating which indicates that new 15-inch-thick gravel subbase and 3-inch-thick gravel base materials were hauled to the site, placed, and compacted. While this approach is typical of a newly developed sites and the Typical Pavement Section on Sheet 5 of 5 - Construction Details implies a full-depth construction, the existing pavement on this site was removed and the underlying gravel was then shimmed, shaped, and compacted, prior to the placement of the base course of pavement. The depth and gradation of the existing site gravels remain unknown, but given the presence of the site's Maine DEP VRAP agreement, no excavation on the site was to occur and to have constructed the paved area build up as described in the May 28<sup>th</sup> support letter would have been in violation of the VRAP agreement.
4. Also, as a point of clarification, the May 28<sup>th</sup> letter indicates that 3-inches of pavement was placed at the site. In actuality, this placed depth would have been prior to compaction of the pavement. In the pavement industry, pavement depths are measured/determined after compaction has occurred. Thus, the existing pavement depth is less than the stated three inches as indicated in the September 13, 2020 photograph below.

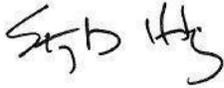


5. As noted in our May 10<sup>th</sup> review comment letter, should the surface pavement course remain in the project, the elevation of the pavers placed for the walkway connecting to the Route 77 sidewalk will also need to be raised to match the new surface pavement.

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: Brandon Binette, Northeast Civil Solutions  
Jay Reynolds, Cape Elizabeth Public Works Director