November 14, 2019
19544

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

Subject: Ocean House Commons, 326 Ocean House Road
Amended Site Plan and Subdivision Permit Review

Dear Maureen:

We have received and reviewed a submission package dated November 1, 2019 for the subject project. The package included the following items:

- a November 1, 2019 letter from Robert Metcalf of Mitchell & Associates;
- a November 1, 2019 Stormwater Management Report as prepared by Amber Ferland of Ransom Consulting, Inc.;
- an October 31, 2019 Traffic Impact Study as prepared by Randy Dunton at Gorrill-Palmer;
- eight, 11-inch by 17-inch March 29, 2019 architectural building floor plans, elevations, and perspective view exhibits labeled AA-1, AA-2, AA-3, AA-4, AA-5, AD A-6, and AA-7 as prepared by Mark Mueller Architects;
- and a sixteen (16) drawing plan set most recently dated November 1, 2019 as prepared by Mitchell & Associates. Fourteen of the drawings within the set related to the Ocean House Commons Subdivision with one drawing each relating to Amended Site Plans for the Town Hall parcel and the previously approved Lot 2 Site Plan.

Based on our review of the submitted material and the project's conformance to the technical requirements of Section 16-2-3 Subdivision Completeness and Section 19-9 Site Plan Completeness; we offer the following comments:

1. The applicant is requesting a review of a multi-use Village Green-style subdivision development on a 4.1-acre entirely wooded parcel within the Town Center. The first phase of the project has been approved as a Site Plan approval of a dental office space with residential units in a 3,572 square foot (SF) building with utility and stormwater infrastructure improvements. Twenty proposed parking spaces along a new partially paved access drive looping through the site to connect from Ocean House Drive to the rear parking lot on the adjacent Town Hall property to allow for the development to link traffic flow to Shore Road was also part of the original Site Plan approval A 20,000 SF public common area adjacent to Ocean House Road to create a Village Green was also included in the original Site Plan approval

   In this subsequent phase of the project, it is envisioned that three more buildings will be constructed with uses that will likely include a restaurant, office spaces, and additional residential spaces. Utility extensions from the Phase 1 utility infrastructure will be constructed to meet the

needs of the future tenants as the buildings are constructed. The road, to be named Town Common Circle, is proposed to be improved to a paved surface for the complete roadway section extending from the Phase 1 end location to the northerly parking lot connection to the rear of Town Hall. In addition, a 17,000 square foot piece of the property in the central portion of the site is being proposed to be included to the originally approved Village Green.

The submittal primarily focuses on the subdivision issues associated with the final three lots noting that each of Lats 1, 3, and 4 will also need to undergo a Site Plan approval process once firm development plans for each of the lots has been established. Amended Site Plan information has also been provided in the packet to adjust changes made to the original Lot 2 approval and changes that will be required to provide a roadway connection to the Town Hall parking lot.

2. We understand that the Board will be conducting a completeness review for this project at their upcoming meeting. Many of our following comments should 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 proposed subdivision development required that a letter of sanitary sewer capacity be provided by the Town Engineer in order to confirm that the Town's collection and treatment system has capacity to receive and properly treat the additional sanitary sewer flow from this new development. The applicant's designer has requested a capacity determination and provided an estimated 4,489 gallons per day flow to be generated from the development based on the envisioned future uses and wastewater flow rates from the Maine Subsurface Wastewater Disposal Rules. After confirming the treatment plant's capacity with the Portland Water District, who manages the Town's Treatment Plant, a November 13, 2019 ability to serve letter was prepared and sent to the designer from the Town Engineer confirming that the Town has the capacity to accept, convey, and treat the sanitary flow from the proposed development.

4. The Amended Site Plan aspects of this submittal include alterations to the Town Hall lot to accommodate the connection of the new development's roadway, Town Common Circle, to the rear parking lot. The Lot 2 Amended Site Plan aspects relate to changes in the previously approved plan that do not significantly impact engineering related aspects. Therefore, we do not have any comments on the Amended Site Plan changes included in this application.

5. The applicant has requested waivers of the right-of-way width, road alignment, and centerline radius to deviate the design from strict compliance with the Subdivision Regulations requirements. In past conversations with the Public Works Director, we have typically not supported these types of waivers. We do recognize that the Planning Board has the discretion to grant these waivers. Given the uniqueness of this particular roadway, which is essentially a private paved access way through a parking lot to connect to another parking lot, we would certainly understand the Planning Board's rationale if the Board decided to grant these waiver requests.

6. The previous Site Plan approval included a roadway gravel buildup of 15-inches of Maine Department of Transportation (MDOT) Type D subbase gravel with 3-inches of MDOT Type A base gravel. The current subdivision gravel roadway standard is 12-inches of Maine Department of Transportation (MDOT) Type D subbase gravel with 6-inches of MDOT Type A base gravel. Again,

in discussions with the Public Works Director, we believe that the new road's gravel buildup should not include two separate gravel layer depth buildups so that the road would be uniformly constructed for consistent performance throughout its entire length. Therefore, based on the previous Site Plan approval, we support the deviation from the subdivision roadway standards for a road buildup of 15-inches of Type D subbase gravel with 3-inches of Type A base gravel.

7. In a related matter to the item above, the Lot 2 Site Plan approval included a roadway pavement thickness of 3.5 inches whereas, the Subdivision Regulations have a 4-inch pavement thickness consisting of a 2.5-inch base course of 19mm hot mix asphalt pavement and 1.5-inch thick surface course of 9.5mm hot mix asphalt pavement. The design now has been altered to the 4-inch pavement thickness in keeping with the Subdivision Regulations.

8. The Subdivision Plat Plan (L1) should be sealed by the appropriate professional.

9. Note #13 on the Subdivision Plat Plan (L1) indicates that monuments will be set, however, no monuments are shown to be installed. Given the unique alignment and configuration of the right of way for Town Common Circle, we encourage the designer to consult with the Public Works Director who has the latitude to determine which locations on the right of way should have a granite monuments, which locations can be marked with an iron rod, and which locations can be left unmarked.

10. Note #16 on the Subdivision Plat Plan (L1) should also be checked as it appears that it was ended prematurely without noting specific requirements to be met.

11. A detail of the buildup of the 11 reserve parking spaces to the west of the parking along Town Commons Circle on the Subdivision Layout and Lighting Plan (L2) should be added to the plans.

12. In keeping with past discussions, the plans should indicate that the Town Center pedestrian lights will be installed as part of this project and then those on the Town accepted land and Town right-of-way will become the Town's property to maintain. Electrical supply power to the lights should be indicated to be designed and implemented as part of the project which the Town will then take over after the project is complete. The electrical design should be coordinated with the Town Staff.

13. On the Bituminous Sidewalk detail on drawing L8, the gravel buildup under the sidewalk should be increased to an 8-inch depth to meet the Subdivision Regulations.

<u>Stormwater Comments:</u>

14. The submission package included a Stormwater Management Report narrative exhibit with supporting calculations which detailed the proposed improvements and the inclusion of stormwater quality treatment methods before stormwater is discharged to the Town's enclosed drainage system at the intersection of Jordan Way and Ocean House Road. As with the previous Lot 2 Site Plan approval, the proposed stormwater treatment methods include building drip edges, wooded buffers, two vegetated underdrained filter swales, and two Focal Points systems which treat runoff prior to an overflow catch basin before being discharged to the Town's public stormwater system.

15. As the subdivision now contains over 1-acre of impervious area, a Maine Department of Environmental Protection (DEP) Stormwater Law permit will be required. We understand that the Stormwater Management Plan will follow the DEP guidelines for on-site stormwater runoff water quality treatment with an un-detained quantity release into the Town's receiving system. This approach has been confirmed in earlier meetings with the DEP staff to be in keeping with their guidelines as long as the Town accepts the post-development flow into the municipal system. Based on Ransom Consulting's stormwater flow rate projections, Sebago Technics is in the midst of finalizing a study of the Town's receiving drainage system which appears to be operating satisfactorily and will be able to absorb the additional flow. Sebago's report will include possible alterations to the Town's system that would increase the drainage network's capacity should any issues arise in the future.

16. One aspect that appears to have changed since the approval of the Lot 2 Site Plan is the area within the proposed Village Green Part 2 property which was originally proposed to discharge into a depressed detention basin area and drain into a Catch Basin with a rim elevation of 86.5. It now appears that this area will be drained primarily through infiltration over a large area and that the Overflow Catch Basin rim elevation has been raised to elevation 88.0 which would require an extremely extensive flooding situation to occur prior to any runoff entering the Overflow Catch Basin inlet. The designer should review this situation and determine if a lower rim elevation would improve the practicality of the system in collecting runoff during intense rain events to prevent local flooding issues.

17. In addition, as the land area of Village Green Part 2 appears to now rely heavily on the infiltration abilities of the subsurface soil conditions which has been observed to drain anecdotally and through the Cumberland County Soil & Water Conservation soil maps which can be limited in their effectiveness for predicting infiltration possibilities for specific site areas. The designer should conduct test pits in the area proposed for infiltration to confirm the native soil's ability to infiltrate stormwater and to determine the anticipated ground water levels in this particular area of the site to ensure the projected infiltration rates will occur. Design considerations should specify that the fill in this area be granular materials to facilitate subsurface flow and to consider whether shallow j-drains should be installed or some other means to encourage positive flow be implemented in this lower open lawn area to ensure that the ground surface does not remain inundated with surface water for prolonged periods.

18. Stormwater vegetated underdrained filtration swales have been proposed to be installed on the south side of the Town's parking lot behind Town Hall. We had noted in one of our earlier review letters that observation risers acting as cleanouts would need to be included in the design, but it does not appear that these items have been added. We understand that the Town will be receiving an easement from the applicant to maintain the easterly underdrained filtration swale and will be given the land of the westerly underdrained filtration swale as part of the Village Green Part 2 property.

19. In the past, we have supported the proposed Stormwater Management Plan approach, however, it appears that the current submission is not consistent with the September 27, 2019 Grading and Drainage Plan which was included as part of the Lot 2 Site Plan Planning Board condition compliance package approval. In addition to the differences in rim elevation of the Overflow Catch Basin, the current plan has flatter slopes and lower inverts for the drainage system which in the September 27th plan had increased some of the plan's very flat slopes by raising the outlet

elevations of the focal points. Also, it appears that the grading of the northern portion of the Town Circle Drive has changed from the earlier approval so as to flow to the Village Green Part 2 land rather than to the Focal Point #1. The design should be reviewed and the previous improvements reinstituted. In general, improvements to the size and slopes of the pipes within the system should be welcomed so that the stormwater network can be more reasonably constructed and function appropriately.

20. The designer should check the elevation of the underdrain pipe entering Drainage Manhole #1 from the Village Green area as it appears that the invert elevation as shown is too high to be constructible. Adding invert elevations at both ends of the underdrain pipe to be located under the proposed curvilinear Village Green walk and the walk's width would also be beneficial for clarity during construction. Adding spot grades along the parking lot edges would also be very helpful to convey the design intent for the paved surfaces to the contractor.

21. The Pre-Development Plan (D1) and the Post-Development Plan (D2) drawings should be sealed by the appropriate professional. Additionally, drawing D2 has previously been provided in color and was not in this submission which made the information, such as subcatchment boundaries, difficult to identify. Future submissions do not necessarily have to be provided in color, however, the current information on the plans needs to clearly identify the information to be presented and clearly designate items such as the model's ponds, reaches, and analysis points that are included in the HydroCAD calculations.

22. As an MS4 community, the Town is responsible for ensuring that post-construction maintenance and inspections are ongoing and reported on an annual basis in accordance with the DEP's most current MS4 5-year permit. According to our conversations with Kristie Rabasca of Integrated Environmental Engineering who is the Town's MS4 Stormwater Compliance representative and works closely with the Public Works Director Bob Malley to ensure the Town is maintaining their commitments under their MS4 permit, the following items will need to be followed to maintain future compliance for this project:

    The Town will be responsible for any the post construction inspection and maintenance stormwater elements that the Town accepts, such as the vegetated underdrained soil filters. Therefore, some of the items that would normally fall to the responsibility of the applicant will not apply for those Town maintained systems. Effectively, the applicant will not need a maintenance agreement, note on the plans, annual maintenance certifications to the Town, nor will they need 5-year certifications to DEP for any aspects of the project stormwater infrastructure taken over by the Town as the Town will maintain this infrastructure under its MS4 program.

    We understand that discussions are ongoing as to the limits of the Village Green Part 2 land area and what features may be included. Because not all if the stormwater infrastructure (building drip edges, Lot 2 level lip spreader, any future specific Lot 1, 3, and/or 4 feature) will be turned over to the Town, a Maintenance Agreement with the Town will be required and annual certifications of maintenance will be required per Ordinance Chapter 25 Section 25-2-5.b.3 and Section 25-2-6. However, the applicant will be providing the Town with Easements and Access as required by Section 25-2-5.b.4. In addition, the applicant will also need to add a note on the plans regarding the MS4 program requirements, provide annual maintenance certifications to the Town, and need to provide 5-year certifications to DEP for any aspects of the project stormwater

infrastructure that is being maintained by the applicant. We believe that Kristie or the Town Planner can provide the language that needs to be added to the plan as a note.

23. In further discussions with the Town's Stormwater Compliance consultant, it was noted that the designer should update the submitted Post Construction Maintenance Plan for the stormwater infrastructure to reflect the maintenance requirements for the underdrained grassed biofilters in accordance with the Maine DEP Stormwater Management Design Manual Volume III and maintenance requirements for the Focal Point biofilters to reflect the manufacturer's recommendations (e.g., inspection after significant rain events to ensure they are still functioning and specifications for replacement actions and materials in the event the filters are not functioning properly). The Plan should also acknowledge that the applicant will be turning the infrastructure over to the Town for Long-Term Maintenance of the items being turned over.

24. When making these changes to the Post Construction Maintenance Plan, the designer should change any references to the "Public Services Department" to the "Public Works Department", and should change any references to the "City" to the "Town". In addition, the Stormwater Management Report describes that the grassed underdrained biofilters discharge to the low filtration area. This description should be corrected to reflect their true discharge location.

Traffic Impact:

25. We have reviewed the study's traffic generation and distribution analysis and believe that this analysis is a reasonable projection of future traffic flow to and from the development. We also agree with the shared trip determination that Gorrill-Palmer used in the study and with the conservative assumption that pass-bye trips are unlikely with this development.

26. We also concur with the Study's conclusion that the proposed development at this time does not trigger a Maine Department of Transportation (MDOT) Traffic Movement Permit (TMP) from the MDOT. Should more intensive uses be identified in the future that would increase the current traffic flow projection, subsequent studies should be conducted once these actual uses of the property are more clearly defined to ensure that the project still does not meet the MDOT TMP thresholds.

27. The study notes that according to MDOT crash history in the three-year window of 2016-2018, there is a High Crash Location (HCL) at the Ocean House Road intersection with Scott Dyer Road and Shore Road. One of the patterns emerging from a review of this HCL accident history is several occurrences of crashed involving left-turning vehicles attempting to enter the Cumberland Farms driveway closest to the intersection. The traffic engineer has offered that one solution would be to prohibit left turns from Scott Dyer Road and instead force motorists to make left hand turns onto Ocean House Road from Hill Way. In our opinion, this suggestion of restricting turning movements does not appear to be practical to implement and, given the development's impact on this intersection is minimal, we do not believe that the applicant should be held responsible for performing mitigation.

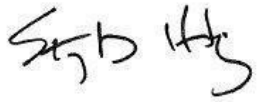
28. In conclusion, we have reviewed the Traffic Impact Study and agree with the study's conclusion that the effect of the traffic impact from this project's envisioned uses will be minimal and that the proposed access locations on Ocean House Road and Shore Road are appropriate. While there will be some minor increases in queue times at the Ocean House Road intersection with

Scott Dyer Road and Shore Road, these increases are minimal and would not significantly affect the function of the intersection.

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: John Mitchell, Mitchell & Associates
Amber Ferland, Ransom Environmental
Bob Malley, Public Works Director
Kristie Rabasca, Integrated Environmental Engineering