From: Will Haskell <whaskell@gorrillpalmer.com>
Sent: Friday, January 17, 2020 4:16 PM
To: Jennifer Curtis
Cc: Amanda L. Lessard; Mark T. Arienti; Jeff Amos
Subject: 3324.37 Sunrise Cove - Peer Review #1

Hi Jenn,

We reviewed the following materials that were downloaded from the Town.

- Sunrise Cove Preliminary Plan Application, dated December 23, 2019, prepared by Terradyn Consultants
- Sunrise Cove Stormwater Management Plan, Dated December 23, 2019, prepared by Terradyn Consultants
- Sunrise Cove Preliminary Plans, dated December 23, 2019, prepared by Terradyn Consultants

We understand that our review is required per subsection 907.B.4.(c).(4) of the Subdivision Ordinance. We also note that Will Haskell from Gorrill Palmer attended the Planning Board Site Walk for this project that occurred on October 9, 2019. We also understand that the Town Engineer will also be providing separate review comments relative to this application, some of which, may likely be different than our comments.

We have the following comments on the plans and application materials relative to compliance with Town Ordinance requirements and generally accepted civil engineering design standards:

General Comments

1. The overall stormwater management plan appears to meet Chapter 500 standards, with several minor discrepancies as noted in comments below. The applicant noted that they have coordinated with MDEP on the existing condition phosphorus export, receipt of MDEP approval of the Stormwater Law permit application and NRPA permit application should be a condition of Town Approval.
2. Show rip rap aprons on plans.
3. Call out pipe size and slope at Sta. 17+00 RT.
4. Provide detail and call out Temporary Sediment Barriers at catch basins.
5. Show building foundation drain outlet locations to demonstrate positive drainage for drip strip outlets.
6. Provide hydrologic and hydraulic calculations for stream crossing culvert sizing near station 5+50. Also provide construction details. We did not find any discussion on the permitting required for this stream crossing culvert. Please describe.
7. Provide detail for pedestrian bridge, particularly at the stream crossing of the walking trail.
8. Discuss protection of walking trail from concentrated flow between the stormdrain outlet at Sta. 9+25 RT and the gravel wetland.
9. The runoff from the stormdrain outlet at Sta. 9+25 Rt does not appear to enter the forebay of the gravel wetland.
10. Provide detail for proposed flow splitter manhole.
11. Provide planting schedule for gravel wetlands.
12. There is no detail sheet for Gravel Wetland #2.

Traffic Study

13. We received the traffic study but have not had time to complete our review and prepare comments. We will submit additional comments by Thursday, 1/23/2020.

Plan Sheet C5.4

14. Provide reference to the Dirt Bag Detail, or show the Dirt Bag on a crushed stone base.
15. Enlarge forebay to provide 10% of the water quality volume as required by the gravel wetland BMP.
16. On Pond Embankment Detail, revise top width to 6 feet.
17. On the Outlet Control Structure Detail the inside diameter is listed as 8 feet, on the Weir Wall Detail, the inside diameter would be less than 7 feet with a 9 foot base and two 12" base extensions.
18. On the OCS detail, the 15" inv out is listed as 196, it appears it should be 194.17.
19. The OCS detail says to submit cut sheets to the City of Saco. Please revise.
20. On the Weir Wall detail Schedule A, the bottom of structure is listed as 198.75 which appears to be incorrect.
21. In the Gravel Wetland Installation Notes #2 it says the maximum riser spacing is 15 feet. It should be 10 feet.
22. There is less than the minimum of 15 feet between the inlet and outlet underdrains in cell #1.
23. On the Cross Section View-Gravel Wetland, the outlet pipe is listed as 24" diameter and it is listed as 15" on the plan view. Please clarify.

Plan Sheet C5.5

24. The plan shows Gravel Wetland #3 (based on C2.1); however, it is called out as Gravel Wetland #1 on this plan and the sheet title is Gravel Wetland #2. Please clarify.
25. The elevation of the emergency spillway listed on the plan view is 205, it appears that it should be 225.
26. The Outlet Control Structure detail shows a 5 foot inside diameter and a 7 foot base with one foot projections which would result in less than 5 feet inside diameter.
27. The OCS section view calls out a 5'x5' grate, and the plan view shows a 5' diameter grate, revise the discrepancies.
28. Add a pond embankment detail, or refer to detail on C5.4.
29. Show underdrain risers at 10' o.c. in cell #1
30. Revise discrepancies at the inverts for the outlet control structure. The plan view, OCS detail, and Hydrocad have three different elevations.

From: Will Haskell <whaskell@gorrillpalmer.com>
Sent: Thursday, January 23, 2020 5:49 PM
To: Jennifer Curtis
Cc: Amanda L. Lessard; Mark T. Arienti; Randy Dunton; Jeff Amos
Subject: Sunrise Cove Traffic Peer Review

Good Afternoon,

As described in our peer review comments submitted by email on Friday, 1/17/2020, we indicated that we would be submitting additional traffic peer review comments by today. Please refer to the traffic peer review comments below.

Thank you,

William C. Haskell | Principal

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From: Randy Dunton <rdunton@gorrillpalmer.com>
Sent: Thursday, January 23, 2020 4:31 PM
To: Will Haskell <whaskell@gorrillpalmer.com>
Subject: Sunrise Cove Traffic Peer Review

Hi Will,

Based on our review of the Twilight (Sunrise) Cove Traffic Impact Study dated November 2019, we offer the following comments:

- Trip generation – To calculate the trip generation for the site, the Town Ordinance requires using the latest edition of ITE, which is the 10th Edition. The study states it uses the 9th Edition, but then appears to use the 7th Edition. The applicant should confirm which was used. The project should use the 7th Edition to determine if it warrants the need for a MaineDOT Traffic Movement Permit (TMP). If it does not, they should then use the 10th Edition for the remainder of the study. All tables and figures should be revised to reflect use of the required

ITE Edition. We do not expect this change to significantly change the results.

The ITE identifies Apartments as four or more units in a building. If the proposed development does not meet this criteria, a more appropriate land use code should considered.

- There is a concern with the ambiguity of the "Commercial Units" description. If a tenant is unknown at this time, the Town may want to require revisiting the trip generation once tenants are known to ensure it does not trigger the need for a MaineDOT TMP.

- We concur with the methodology of the trip distribution and assignment.

- Route 302 is a Principal Arterial on the National Highway System and at this location is posted at 40 mph. As such, this corridor is extremely critical in maintaining mobility in the region. Each driveway represents a conflict point for the corridor and each conflict point decreases mobility of the corridor and has the potential for decreasing safety. In our professional opinion the site does not warrant the need for two accesses onto Route 302 and the two access drives would decrease the mobility and safety of this section of Route 302.

- The Traffic Impact Study incorrectly identifies this section of Route 302 as a Retrograde / Mobility Highway and that a MaineDOT Entrance Permit is required. Based on our review, this section of Route 302 in Windham is within the Urban Compact, and as such, it is not a Retrograde / Mobility Highway and does not require a MaineDOT Entrance Permit. This should be confirmed with MaineDOT.

Randy Dunton P.E., PTOE | Project Manager

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