

**From:** Will Haskell <whaskell@gorrillpalmer.com>  
**Sent:** Wednesday, February 13, 2019 10:01 AM  
**To:** Amanda L. Lessard  
**Cc:** Lisa Fisher; jseymour@sebagotechnics.com; James Attianese; Owen Chaplin  
**Subject:** 3234.19 Land of Nod Road Subdivision

Hi Amanda,

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

- Preliminary Major Subdivision Application, dated February 2019, prepared by Sebago Technics, Inc.
- Stormwater Management Plan, dated February 2019, prepared by Sebago Technics, Inc.
- Plan Set for Land of Nod Road Property, dated February 4, 2019, prepared by Sebago Technics, Inc.
- Memo – 18-24 Land of Nod Road Subdivision – Sketch Subdivision Plan, dated November 21, 2018, Prepared by the Town of Windham

We have the following comments on the plans and application materials:

1. We have reviewed the traffic impact study and have no comments.
2. Will the project construction be phased?
3. Deputy Fire Chief recommended two 15,000 gallon cisterns at Sketch Plan submission. Plans do not show locations or details for cisterns.
4. 910.C.1.(a).(16) – All requested financial capacity information was not provided in the submission. For example, submit letter of commitment to fund.
5. 910.C.1.(b).(7) – A standard boundary plan sealed by a professional land surveyor is required.
6. 911.A.3.b - Show monumentation and property markers for all lots on the plans.
7. 911.E.1.a - Add note to subdivision plan stating that clearing of trees is not allowed in areas where tree cover is depicted on the plans, for a period of at least five (5) years from the date of planning board approval.
8. Label proposed treeline on subdivision plan.
9. Label dashed lines adjacent to wetlands. For example, near Vernal Pool I.
10. 911.E.1.b – Include Street trees in landscape plan, apply for waiver from requirement to provide street trees if not included in landscape plan.
11. Show proposed landscaping and proposed subdivision sign on plan, conforming to the Town of Windham Sign Ordinance.
12. Fill out and submit the Town Waiver form for each waiver requested.
13. Provide waiver form for requested monumentation waiver.
14. 911.K.3.b.1 -Depict well and subsurface disposal fields or applicable exclusion zones on plans.
15. 911.K.4.a – label open space on subdivision plan as “Common Open Space – Reserved for Recreation and/or Conservation Purposes”.
16. Provide MDEP Site Location of Development permit with Final Submission.
17. Provide evidence of notification of Army Corps of Engineers for wetland disturbance.
18. We recommend that the sight distance at intersection of Subdivision Roadway with Land of Nod Road be shown on plans.
19. Add Stop Signs at intersections.
20. 911.M.5.a.2 - Show roadway centerline curve data on plans.
21. 911.M.5.a.2 -Provide radii at cul-de-sac and intersections.

22. 911.M.5.b.6.c - Revise typical roadway section to provide 2-foot gravel secondary shoulders, or apply for a waiver from the subdivision road requirements.
23. 911.M.5.b.8.iii.c – Revise the drainage ditch on the typical section. Drainage ditches must be at least as deep as the lowest point of the road subbase.
24. We would recommend a beehive grate for catch basins located in ditches in order to reduce clogging.
25. Revise notes 10 and 11 on plan sheet 7 to clarify who is responsible for pulling wire in conduits.
26. Add a note to the Typical Underground Cable Installation detail on sheet 10 of the plan set to require installation of pull ropes in conduits.
27. Provide table for filter elevations shown on sections on Sheet 11 of the plan set.
28. Label the section which depicts underdrained soil filter 2 on plan sheet 11.
29. Show existing driveway removal and proposed driveway location for existing dwellings.
30. Show Town of Windham 75 foot stream protection district boundary on plans.
31. Show limit of FEMA floodplain on plans.
32. We understand that the response from MDIF&W will be submitted with the Final Plan submission
33. We understand that the response from Maine Historic Preservation Commission will be submitted with the Final Plan submission.
34. Identify wetland boundaries and proposed wetland impacts on plans.
35. Label adjacent subdivision and roadway on plan sheet 6.
36. Show lot setbacks and dimensions on plans. Account for wetlands and proposed treeline when depicting building envelope.
37. Show boundary line bearings and distances on plans.
38. Final Subdivision Plan shall be stamped by a professional engineer and a professional land surveyor.
39. Show transformer locations and any necessary easements on plans.
40. Discuss who will provide maintenance of stormwater systems post construction.
41. Discuss post construction maintenance of roadways.
42. Provide draft Homeowners Association documents.
43. Discuss if roadways will be proposed for Town acceptance or kept private.
44. Provide plan showing areas used for determination of net residential density.
45. Show proposed street light at intersection with Land of Nod Road on plans.
46. Provide ditch sizing calculations and lining requirements.
47. Where ditch grading and riprap (aprons) extend beyond the road right-of-way, we recommend that easements be defined to allow for future maintenance and repairs.
48. 911.J.1 requires stormwater management to include lot development. Revise calculations to include lot development, and provide assumed impervious and developed area for each lot.
49. Since the Class B High Intensity soil survey has been prepared for the site, use the soil data for onsite areas in the stormwater analysis.
50. Revise narrative to coordinate impervious area due to the development. The proposed site improvements section lists the impervious area as 2.75 acres and the flooding standard section states that there is greater than 3 acres of impervious. The treatment table in appendix 2 lists 1.49 acres of impervious area.
51. The treatment table lists the percentage of impervious area treated as 91.4%. Chapter 500 requires 95% of the impervious area be treated unless the exception for a Linear Portion of a project is taken. Provide stormwater treatment in conformance with MDEP Chapter 500 standards.
52. Provide a deed restriction for proposed buffers.

53. Add notes to plan to temporarily stake out limits of buffers prior to site construction, and to permanently define the buffer limits and include signage, in accordance with MDEP BMP Chapter 5.
54. Since the existing contours are derived from LIDAR, conduct field surveys of stormwater management facility areas in order to determine actual ground conditions at the ponds and buffers. The ground survey will help confirm that the contours don't concentrate stormwater at buffer areas.
55. The Stormwater Inspection Log says to see attachment E and F for deed restrictions. Attachment E and F have not been provided.
56. The proposed Wooded Buffer is less than 75 feet long. It appears that there is area to extend the buffer to provide a greater flow path length.
57. Adjust proposed treeline at the wooded buffer to encompass the entire buffer.
58. Revise the calculation for the meadow buffer to use the correct berm length required for impervious/landscaped areas per MDEP BMP table 5.5.
59. The post-development times of concentration for subcatchments 11.2, 11.3, and 11.4 are longer than the predevelopment times of concentration. Verify that the times are representative of the subcatchments with roadway runoff.
60. Revise the calculations for underdrained soil filter 1 and 2.
  - a. Verify that the required filter surface area is provided based upon the tributary area, UDSF 2 is 900 sf with 1,036 sf listed as the required area.
  - b. The MDEP BMP for a biocell allows the use of 30% of the filter area for volume calculations, the bmp for grassed underdrained soil filters does not provide for this additional storage. Revise the calculations to only include storage area above the filter surface.
  - c. Ensure that the required water quality volume is provided between the filter surface and any overflow structure.
  - d. Limit the outflow from the underdrain system in order to convey the water quality volume from the pond in 24-48 hours.
61. Include seeding requirements in the underdrained soil filter details.
62. Provide a spillway analysis for the ponds conveying the 25-year storm solely over the spillway.
63. The applicant has requested a waiver from Ordinance Section 911.A.3.a.1 which is a requirement for granite roadway monumentation on both sides of the road. The Applicant proposes granite monumentation on one side of the road. We have no technical concerns with this waiver request.