

CLA Engineers, Inc.

Civil • Structural • Survey

317 MAIN STREET • NORWICH, CT 06360 • (860) 886-1966 • (860) 886-9165 FAX

November 20, 2024

Meredith Badalucca, Assistant Planner
Town of Montville
310 Norwich-New London Tpke., Uncasville, CT 06382
Via Email: mbadalucca@montville-ct.org

RE: Site Plan Application 24SITE9 Review
1758 Route 32 – Shantok Village
CLA-7873B

Dear Meredith:

CLA Engineers, Inc. (CLA) has received the application materials for the above referenced project located on the Town Form Repository:

<https://www.townofmontville.org/form-repository/24-site-9-1758-1790-route-32-shantok-village/>

CLA performed a review of the application documents and offer the following comments:

1. C-2 / Plans: There appear to be inconsistencies in the test hole numbering on the plan sheets and corresponding logs on sheet C-2. Some test holes labeled on the plans don't have a corresponding log. Please clarify if the logs provided on sheet C-2 are excavated test pits or boring logs.
2. C-2: The Soil Test Data text indicates that no groundwater was observed on the boring completion. Was there evidence of a seasonal high groundwater table observed during test pit excavation?
3. C-2: The Site Notes indicate a separate Zoning Permit is required for onsite material processing. Is onsite rock or material processing proposed throughout construction? It appears to be part of work zone 2, but is located over the site improvements of works zone 1. The use and location should be clarified.
4. C-2: Temporary Sediment Basin "A" is sized based on the Temporary Sediment Trap calculations. This should be sized in accordance with the Basin calculations due to the contributing watershed size.
5. C-2: E&S Control Notes: The Work Zone 1 narrative indicates temporary sediment pond 1 and 2, this should be corrected to basins A and B.

6. C-2: E&S Control Notes: We recommend adding a note referencing the use of the Earthguard slope stabilization on the 3:1 slopes or steeper as called out on the plans.
7. C-2: E&S Control Notes: We recommend adding a note that temporary E&S measures remain in place until the site has been reviewed and removal allowed by Town Staff.
8. C-2: E&S Control Notes: We recommend adding a note that copies of the CTDEEP Construction Stormwater General Permit registration materials and inspection reports shall be provided to Town Staff during construction.
9. C-4/5: Is there adequate room on the final site for snow storage?
10. C-5: Grading is shown at or in very close proximity to the property line in several locations. The Applicant should address the feasibility of this construction without disturbing neighboring property. In particular along the southern boundary where E&S measures are shown and necessary.
11. C-5: It appears the graded slope east of building 4 heading north toward the ramp is a 2:1 slope or steeper without benching. It also appears that the slope south of building 2 between the entrance drive and south property line is a 2.5:1 slope. Benching should be provided where the slope exceeds 3:1 for 15' vertically, or a detailed analysis should be provided demonstrating the slope stability, as outlined in the E&S Manual.
12. C-5/6 & Stormwater Management Report: Calculations should be provided demonstrating the major vegetated swales have the capacity needed and can accommodate the anticipated velocities within them.
13. C-6: There is a long run of vegetated swale along the north side of the entrance drive. Can stormwater be captured more frequently along this run to help prevent erosion?
14. C-6: Several culverts are proposed with steep slopes. Stormwater velocities should be checked to ensure compliance with the pipe manufacturers' recommendations. The applicant should address if additional support or collars are needed in these trenches to prevent pipe creep.
15. C-6: Additional detail or information for the "At Grade Stormwater Infiltration" should be provided, including surface treatment or soil section. Has soil testing been done in this area?
16. C-6: Will roof drainage be connected to the stormwater drainage system? If so locations, or call-outs should be provided.
17. C-6: Two of the subsurface systems are labeled infiltration, one is labeled detention. Is there a difference in construction of the systems? If so, additional construction details should be provided for each system.

18. C-6: The applicant should address the location of the subsurface infiltration/detention systems relative to seasonal high groundwater and ledge. The lack of existing and proposed contour labels makes it difficult to determine if the systems will be in soil or rock cuts. The bottom of the subsurface infiltration system at the driveway entrance appears to be around 15' below grade, has soil testing been done in that area to that depth?
19. C-8: The location of the mulch socks east of building 4 should be adjusted to avoid installation across the slope and potentially concentrating flow.
20. C-9: How will the site be accessed for this portion of the work? It appears that the construction entrance and Sediment Basin A overlap.
21. C-9: Additional E&S measures should be provided at the drainage system outlets and outlets from the temporary sediment traps/basins.
22. C-9: Where will temporary material stockpiles, staging areas, and trailers be located.
23. C-9: Will the site and building improvements be complete at the end of work zone 1?
24. The following construction details should be provided:
 - a. New Guide Rail
 - b. Headwalls and endwalls
 - c. Stacked Retain-it
 - d. Vegetated swale
 - e. ADA sidewalk ramps (titles are there)
 - f. Permanent stone check dams
 - g. Steps and handrails
 - h. Concrete sidewalk against BCLC
 - i. Topsoil section
 - j. Seed mixes & application rates

Stormwater Management Report:

25. The locations, depths, and data for all of the permeability samples should be provided.
26. Current stormwater runoff appears to sheet flow off the site along the entire southern boundary. The proposed development will concentrate flow to two point source discharges. The Applicant should address whether these point source discharges could have a negative impact on property or infrastructure downstream.
27. The Applicant should address the western FES discharge location. Reviewing GIS contours downstream of this location it appears this discharge could be directing water to the structure on the 100 Fort Hill Drive property.

28. Time of concentration travel paths for the existing conditions and for the larger post development watersheds should be shown.
29. The Hydrocad output sheets indicate the calculations were performed for a Type II storm distribution. The NRCS NOAA Type D distribution should be used.
30. Subcatchment summary sheets and pond report summary sheets should be provided.
31. Analysis for the onsite drainage system should be provided.
32. Sizing calculations for outlet protection measures should be provided.
33. Reference is made to hydrodynamic separators. Are there any proposed?
34. Water quality for each of the discharges should be addressed.
35. Maintenance for the at grade infiltration should be provided.

Thank you for the opportunity to provide this review. Please feel free to call me at our office or email khaubert@claengineers.com with any questions.

Very truly yours,
CLA Engineers, Inc.



Kyle Haubert, P.E.