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May 20, 2024

Ms. Meredith Badalucca, CZEO
Assistant Planner
Town of Montville
310 Norwich-New London Turnpike
Uncasville, CT 06382

**Re: 24SITE3 – Jeff Daniels
1492 Hartford-New London Turnpike
Montville, CT
Revised Site Development Plan and Stormwater Management Report Review**

Dear Ms. Badalucca,

Per your request Boundaries LLC has completed a review of the revised application materials for the proposed industrial development located at 1492 Hartford-New London Turnpike (Map 005, Lot 027-000) prepared by Green Site Design, LLC.

The following documents were received on May 10, 2024, as part of the revised application package:

- Revised Site Plan Application.
- Revised Project Narrative Letter.
- Revised Drainage Calculations, Hydraulics & Hydrology Report.
- Revised Site Plan Prepared for Daniels & Sons Construction, LLC, 1492 Hartford-New London Turnpike, Montville, CT, April 2024, Revision 3, 4/26/24 Review Comments.
- Bond Estimate, Dated May 1, 2024.

The following comments and questions are based on review of the above documents:

General Comments

- Please address the following septic system design elements:
 - Please review the elevations of the proposed septic tank and leaching field, the septic tank is lower than the distribution box.
 - Please review the slope of the building sewer, it does not appear to comply with minimum slope requirements for a 4-inch pipe.
 - The building sewer exceeds 75-feet in length and should be provided with a cleanout.



- Please review the quantities for topsoil and grass seed mix included in the bond estimate. The documents report an area of disturbance of 4.08 acres. However, the bond estimate includes topsoil and seed mix for restoration of approximately 0.4 to 0.5 acres.
- The Landscape Schedule added to Sheet 3 does not match the callout for the landscape buffer. Please verify the correct information.
- Please include the Invasive Species Management Plan referred to in the Operation and Maintenance of Drainage System notes.
- Please update the numbering and the maintenance and inspection schedule in the Pollution Prevention Plan for consistency with the Operation and Maintenance of Drainage System section.
- Please provide additional information regarding the intended operation of the proposed oil water separator:
 - There is no available discharge location for an oil water separator at this site and the catch basin grates would potentially allow spills to enter the last chamber in the separator and not receive treatment from the previous chambers in the tank.
 - The tank is called out for 5,000 gallons of storage however the dimensions in the detail are for a 2,500-gallon storage tank.
 - Please provide additional information regarding proposed grading around the tank to ensure that spills are directed to the structure instead of flowing towards the stormwater basin.
 - Please provide information on how clean stormwater runoff will be prevented from entering the tank to ensure that storage capacity is available during all fueling operations.

Site Plans

- Please include the abutting property owners across the state highway per Section 4.11.11.3.2.b.1.
- Please verify that the entirety of the proposed driveway apron is contained within the easement. It appears that a small portion of the curb cut may extend outside of the easement. Adding the easement limits to the proposed site plan may be helpful.
- Please verify that the existing easement identified as being “for ingress and egress, access to the detention pond, for drainage rights, fire protection and well protection” allows for the installation of utility service connections as shown.
- Please verify the water surface elevation in the sediment forebay. It appears to be near to the invert of the existing flared end section which would place the outlet of the curtain drain four feet below the water surface. If that is the case the curtain drain would not function as intended.
- Please review the level spreader detail versus the elevations and notes called for on the site plan, they appear to be inconsistent. The rip rap is called out as both modified rip rap and intermediate rip rap in different locations on sheets 2, 3 and 5. Please verify the intended rip rap sizing and corresponding rip rap thickness.

Stormwater Management Report

- Please verify that the storage volume below the low-level outlets exceeds the calculated water quality volume as reported. The reported volume was not able to be duplicated using the proposed grading plans and the low-level outlet elevations (206.0 for the sediment forebay and 205.5 for the stormwater basin outlet control structure). The estimated volume of the permanent pools based on the PDF grading plans is approximately 10,100 cubic feet versus the 23,439 cubic feet included in the report.



- Please evaluate the velocity and freeboard in the perimeter swale to confirm that the discharge does not exceed the allowable velocity for a vegetated surface without some form of turf reinforcement. It appears that the Manning's coefficient used in the provided calculations is resulting in a lower-than-expected velocity.
- Please verify that the hydrograph routing in the stormwater management model is being completed as intended. It appears that the storage volume of the stormwater basin is being counted twice, once as part of the interconnected reservoir in Hydrograph 3, and then again as a separate reservoir in Hydrograph 4. This results in lower-than-expected peak discharge rates.
- Based on the Max Elevation reported for the "Lower Pond" in Hydrograph 3 it appears that the emergency spillway will be active during all modeled storm events. Please verify that the emergency spillway will only be active during the modeled 100-year storm event.
- Comment 3 from the Assistant Town Planner's review letter requests that the 2024 Stormwater Quality Manual be used as the basis for the stormwater management design. The hydrographs currently included in the stormwater management modeling are based on the Modified Rational Method. The 2024 Stormwater Quality Manual recommends using the Natural Resources Conservation Service (NRCS) Type D (NOAA Type D) rainfall distribution for the generation of hydrographs. Please confirm that the Modified Rational Method is an acceptable alternative under the 2024 Stormwater Quality Manual recommendations.

Please do not hesitate to contact me with any questions.

Sincerely,



David C. McKay, P.E.