Town of Killingly

Engineering Department
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MEMORANDUM

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FROM: David Capacchione, Town Engineer; Gary Martin, Assistant Town Engineer

DATE: February 18, 2021

RE: Yellin Trailer Parking Lot, Killingly Ct

CC: Ann Marie Aubrey Director of Planning and Development, Jill St Clair, Director Economic Development, Jonathan Blake, Planner I, & Zoning Enforcement Officer; file

The Town Engineering department has received the following information for the subject project at our office through February 18, 2021:

Item 1:

Set of twenty-three (23) drawing(s) entitled "Civil Engineering Plans For: YELLIN TRAILER PARKING LOT Dayville, Windham County, Connecticut prepared by Haskell Architects and Engineers, P.C. 111 Riverside Avenue Jacksonville, Florida 32202 and dated 01/21/2021.

Item 2:

STORMWATER MANAGEMENT PLAN, Yellin Trailer Parking Lot prepared by Haskell Architects and Engineers, P.C. 111 Riverside Avenue Jacksonville, Florida 32202 and dated 01/21/2021.

We have reviewed the item(s) listed above and have the following comments pursuant to the Inland Wetland & Planning and Zoning Commissions:

Comments:

1. On sheet 1C-120 there is a 12 ft wide gravel strip near the sediment forebay and behind the overhang stalls. What is the purpose / advantage of this strip?

2. Given the location of the lighting pads and the intended use of the lot you may want to consider protecting the light pads.

3. On sheet 1C-140 there are two manholes upstream of the Hydrodynamic Separators (Downstream Defenders). In looking at the piping details and structure table it appears that these are diversion manholes however I do not see any details relating to these MH's and the pipe inverts seem to be the same. Please look at this and modify to show that the manufacturers recommendations are followed to separate low flow from high flow and prevent the sediment from washing out of the hydrodynamic separators.

4. On sheet 1C-140 there is a call out for an overflow weir INV 252.00 from the sediment forebay to the main detention pond. The cross section shows the weir at 254.00 please correct for consistency.

5. Sheet 1C-140 also shows what appears to be an emergency overflow on the south side of the detention pond. This would need protection from erosion however, I am concerned about possible damage to the sanitary sewer line that any potential overflow could cause. I would prefer to avoid using this area for concentrated flow.

6. Sheet 1C-161 indicates the contractor to implement dust control. Please indicate where the water will be acquired.

7. Due to the slope of the proposed detention pond and the use of the lot please include a fence all the wat around the pond. You may want to plan for future access of machinery in order to perform routine maintenance.

8. On sheet 1C-170 there seems to be some missing data for the EXDA DERESSION pre-developed conditions table.

9. On sheet 1C-170 the pre-developed peak discharge for the South Basin is shown as 30.18 cfs. Please identify the limits of the south basin and explain if it is sheet flow, shallow concentrated flow, a point discharge or a combination.

10. Please list the existing conditions runoff for the EXDA- Upper, Yellin and Depression areas. Is this included in the south basin runoff?

11. Please show the finish grade for the detention pond to be filled in.

12. On sheet 1C-171 the post development table seems to be missing some CN numbers they are show on the plan. Please modify the table.

13. Please identify the rainfall amounts used to determine the flows and water elevations for the 2 to 100-year storm events. Please list the flows and elevations for each storm event and catchment listed.

14. On sheet 1C-172 it appears that DD-1 treats 24.06 acres including the upper lot and the area of the existing detention pond.

15. From looking at the BMP Drainage Area Map on sheet 1C-172 it appears that there are a few areas between the shaded and hatched areas not included in the calculations. Please modify the drainage calculations if necessary or correct the map.

16. On sheet 1C-242 the STM 400-S cross section shows the proposed grade extending above the top of bank. Please clarify and modify if necessary.

17. On sheet 1C-242 the STM 400-S cross section shows a 24-inch CMP riser. I would suggest another material besides CMP for longevity.

18. Sheet 1C-440 shows the influent pipes to the sediment forebay set near the bottom. Given the New England winters it is advisable for these pipes not to be submerged during extended periods of cold weather.

19. Given the proximity of the outlet structure 424 to the tail race please investigate creating a larger detention area to eliminate the need for a discharge or explore other options for infiltration. If this is not possible provide the discharge flow and velocity and demonstrate that the proposed outlet protection is adequate. Please note CT DEEP may consider this a discharge to a River and it may require additional permits and or monitoring.

20. There are several areas that call for rip rap protection. Please provide the size required and the calculations (drainage and otherwise) to support the dimensions shown.

21. Please note as we discussed a disturbed area of this size requires a permit from CT DEEP.

22. In some areas the slopes of the proposed detention pond are 2H:1V. A 3H:1V is recommended in the CT Stormwater Manual. If you cannot meet the 3H:1V please indicate how you plan to stabilize the slopes.

23. Please provide the specifications of the Hydrodynamic Separators you plan to install,

24. Please modify the construction entrance detail to meet CT DOT standards.

25. In your stormwater management plan, it is stated that the forebay is sized to accommodate 25% of the Water Quality Volume (WQV). In areas that see use like what you are proposing the ability to hold 100% is typical.

26. In your stormwater management plan, you indicate you will be requesting a variance for WQV recovery (water quality volume recovery) and for the pond recovery time. Please call to discuss or provide the reasons for the variance(s).

27. In the stormwater management plan the catchment area data summary for pre-developed conditions is missing some data.

Please contact the Town of Killingly Engineering Office at (860) 779-5360 if you have any questions or need additional information. We will be happy to meet with you to discuss the above referenced project.