



Real People. Real Solutions.

418 South Dawson Street  
Raleigh, NC 27601

Phone: (919) 719-1800  
Bolton-Menk.com

## MEMORANDUM

**Date:** September 13, 2024  
**To:** Michael Elabarger  
**From:** Jacqueline Thompson, PE  
**Subject:** Tidal Wave Auto Spa  
SDP 23-08, 4<sup>th</sup> Submittal  
Town of Rolesville, NC

This memo summarizes the review of site plan documents submitted by Seamon Whiteside Company dated 09/04/2024 (received 09/06/2024).

### Cover Sheet:

1. Repeat: Stormwater management report is needed to complete engineering review. Provide with next submission. Include the following in the storm package:
  - a. Pre and Post development drainage area maps
  - b. HGL calculations and graphs (10 year for closed systems, 25/50 year for those in sags based on classification); HGL shall be inside pipe
  - c. Gutter spread calculations
  - d. Outlet velocity identified
  - e. Rip rap calculations
  - f. Culvert calculations (if applicable)

### Sheet C3.1

2. The limits of disturbance were shown on the existing conditions and demolition sheet for previous submittals. Continue to show the limits of disturbance on the existing conditions and demolition sheet.

### Sheet C4.1

3. The silt fence location was updated for this submittal, but the proposed silt fence label has not been updated. Move silt fence label based on silt fence updates.
4. The drainage easement in the south corner of the site was labeled on the erosion and sediment control plan sheets in previous submittals. Continue to label this drainage easement on erosion and sediment control sheets.
  - a. This comment applies to all relevant sheets.
5. The temporary construction easement on the south-east side of the site was labeled on erosion and sediment control plan sheets in previous submittals. Continue to label this temporary construction easement on erosion and sediment control sheets.
  - a. This comment applies to all relevant sheets.
6. The limits of disturbance was updated in this submittal but the disturbed acreage label has remained the same. Verify the disturbed acreage and update labels on the plans as needed.

- a. This comment applies to all relevant sheets.

#### Sheet C5.1

7. Label the pedestrian striping on the site plan sheet.
8. Pavement markings conflict with the new pedestrian striping at the intersection of Grand Park Dr. and US HWY 401. Adjust pavement markings and pedestrian striping as needed.
  - a. This applies to all relevant sheets.

#### Sheet C6.1

9. Ensure all storm pipes have 2' minimum ground cover over top of the pipe.
10. Update the rip rap apron detail on Sheet C8.3 to include the two new outlet structures, FES A1 and FES A3s. Include rip rap dissipater pad calculations for these aprons in stormwater package with next submittal.
11. Repeat: Clarify what GRCP pipe material is. It is still proposed for outlet pipes.
12. Repeat: There is a concern about how well the area near the driveway entrance from Grand Park Drive will drain as the slope appears to be <0.5%. Please review the design and ensure there is enough grade change to allow for positive drainage to storm structures.
13. Clarify the pipe material for the pipe draining from structure A10 to the ADS Water Quality System. The material was previously labeled "GRCP" but now shown as "Class IV".
14. Any pipes that will be submerged or used for detention should have O-ring connections at structures. Based on this, clarify which pipes, if any will need O-ring connections at structures and label these connections on the grading and drainage plan sheet.
15. All pedestrian ramps need to be ADA compliant. Please confirm longitudinal and cross slopes of pedestrian ramps.
  - a. It appears there are a couple ramps that are around 7% or 7.5% without handrails.
16. Spot grades at the pedestrian ramp near the intersection of Grand Park Dr. and US HWY 401 are showing "W???". Update spot grades to include elevation for review.

#### Sheet C6.2

17. Repeat: Label existing and proposed grades on all profiles. This comment applies to all relevant sheets.
18. Clarify if the dashed line through the pipes are supposed to represent the HGL. If so, label the HGL and associated storm on the profiles.
  - a. If this is the HGL, ensure HGLs for the 10-year storm stay within the pipe. In addition, please provide HGLs and calculations with the storm package next submittal.
19. The band for profile "STORM A9-A12" labels the EG and FG as the same grade. Update EG and FG grade labels for this profile.