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## MEMORANDUM

Date: May 30<sup>th</sup>, 2024  
To: Michael Elabarger  
From: Jacqueline Thompson, PE  
Subject: Prop. Site Plan Documents for Chase  
SDP-24-03 1<sup>st</sup> Submittal  
Town of Rolesville, NC

This memo summarizes the review of site plan documented submitted by Bohler, dated 04/23/2024 (received 05/05/2024).

Note: Due to this site being private, we are reviewing this Site Plan submittal as a Construction Drawings submittal.

### Sheet C-101:

1. In references and contacts table, update architectural plans "DATED:" to match that shown on the architectural plans.
2. Update Project Number and Submittal Type: to Rolesville Project number, SDP-24-03.
3. As noted above, due to this being a private site, we are reviewing this Site Plan submittal as Construction Drawings. For this type of review, please provide the following in the next submittal:
  - a. Stormwater Calculation Package including the following:
    - i. Pre and post development drainage area maps.
    - ii. HGL calculations and graphs (10-year event for all closed systems and 25/50 year for those in sags based on classification. HGL shall be inside of pipe for 10-year event).
    - iii. Gutter spread calculations ( $I= 4''/hr$ ).
    - iv. Outlet velocity identified.
    - v. Rip rap dissipator calculations.
  - b. For NCDOT, the following:
    - i. Sizing for all new or modified open ended crosslines for 25/50 year based on classification.

- ii. 10-year sizing for all roadside ditches with a reduced cross section from the existing conditions.
  - iii. Pre and post development drainage calculations for all POIs (25, 50, 100 year).
  - iv. Bypass calculations.
4. Include owner contact information on cover sheet.

#### Sheet C-201

5. Update plans to reflect surveyed conditions. (It is understood that Bohler is waiting for the survey, leaving this comment until survey is received and updated).
- a. This comment applies to multiple sheets.
6. Provide site metes and bounds of property boundary in graphic and list format.
7. iMaps shows force main extending along US 401 Business. Show entire force main and either label or add line type to legend on sheet C-102 for clarity.
8. Clarify and provide direction to where existing tree to be relocated will be relocated to on landscape sheet.
9. Show all existing storm pipes along US 401 Business.
10. Specify whether Virginia Water Dr. is a public or private ROW.
- a. This comment applies to multiple sheets.
11. iMaps show flood prone soils on site, please verify if there are any on site.
12. Verify if existing utilities and stormwater on the property have existing easements. If so, show the easement, label with size, type, and public/private.
13. Label existing utility and stormwater pipes with size and material.
- a. This comment also applies to sheet C-301 and sheet C-401
14. The access drive off of Wallbrook Drive has not been submitted and doesn't appear to be existing. Verify existing conditions where an existing access drive is shown and update as needed.

#### Sheet C-301

15. NCDOT will not allow the proposed retaining wall for sidewalk to ROW to be within the ROW. Please revise design.
16. Please label the existing radii on site, within the access drive off Wallbrook Drive.
17. Update building height to match that shown on architectural plans.
18. Plans for access drive off of Wallbrook Drive have not yet been submitted. Unless further coordination for the access drive is taking place, design and permitting of driveway improvements will be needed for this submittal.

#### Sheet C-401

19. Provide standard drop of 0.2' between inverts in and inverts out of storm pipes.
20. Depending on revised design, please provide spot grades for at proposed wall for tie out locations.

21. Clarify how stormwater will be managed in low point at 382' contour adjacent to Virginia water Drive.
22. Clarify if a spill curb will be used along interior curb to allow positive drainage to storm structures.
23. Please clarify if there will be a high/low spot between 387 contours on the curb across from the trash enclosure.
24. Adjust the proposed pavement swale along the trash compactor. The swale currently looks like stormwater will have trouble draining around the curb (and eventually to the curb cut/ swale).
25. We were not able to evaluate the grass swale without the storm calculation package. Impervious areas should be collected through a closed storm system to the existing drop inlet. Please revise design as needed.
26. Based on existing contours in the east corner of the site, it appears stormwater in this area flows off site. Adjust grading as needed to route stormwater to existing storm drop inlet.

Sheet C-501

27. An easement will be required for water meters in their current proposed locations.

Sheet C-801

28. Trees to be preserved should be enclosed with appropriate fencing no less than 1' from trunk for each 1" in tree diameter (LDO section 6.2.4.5). Tree protection fencing should remain in place throughout the site development until a certificate of occupancy is issued. Show tree protection fencing on site plan and landscape sheets as well.

Sheet C-803

29. The hatch for the concrete washout pit by the construction entrance remains but border and label have been removed. Please clarify whether the concrete washout pit will remain or be removed in phase 3.

Sheet C-902

30. Please include the following details with the next submittal:
  - a. Roof drain cleanout out connection.
  - b. Grass and pavement swale detail.
  - c. Pipe bedding and trench.
  - d. Storm outlet pipe and rip rap dissipator pad.