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MEMORANDUM

Date: February 5, 2025
To: Michael Elabarger
From: Jacqueline Thompson, PE
Subject: Kalas Falls Phase 5
CID-25-01, 1st Submittal
Town of Rolesville, NC

This memo summarizes the review of Construction Infrastructure Drawings and associated Stormwater Drainage Report submitted by American Engineering, dated 12/23/2024, received 1/05/2025.

Cover:

1. Please add "CID-25-01" and the original submittal date to the cover sheet (preferably in the middle of the sheet in a visible location).
2. A lighting plan is required per LDO Section 6.6.F. Please add this to the next submittal set.

Sheet CS100:

3. There is a vertical line showing in the rear yard of the Typical Townhome Lot Layout detail. Please confirm what this line is for.

Sheet CS403:

4. Proposed temporary barricades should be labeled on the signing and striping plan as well since they are more permanent due to a future connection.
5. Please confirm if the dashed lines shown on either side of the truncated connection road are easement lines. If so, please label them.
6. Please provide the specific detail number (and sheet number) for the Proposed Temporary Barricade within the call out.

Sheet CS110:

7. Confirm what signage will be provided at the crosswalk on Armfield Creek Place given the close proximity to the intersection.
8. Please include stop signs and speed limit signs on the Signage and Striping Plan.
9. Shouldn't sheet CS110 follow CS100 in the CID set? If so, please relocate it and change the sheet index on the cover sheet.

Sheet CT200:

10. Note the minimum separation requirements between utility pipes in all appropriate locations. This comment applies to all profiles within the CID plan set.

Sheet CT201:

11. Please confirm if there will be a temporary easement at the end of Graymont Oaks Drive to allow for the installation of the storm sewer tie-in.

Sheet CU100:

12. Please show the temporary easement at the end of Graymont Oaks Drive where it ties into the adjacent property. It is shown on the site plan but does not appear to extend far enough to include the proposed sanitary sewer pipe installation.

Sheet CU401:

13. Confirm drainage structure 378A-CB is far enough away from the pedestrian ramp curb cut to allow for the curb transition. It currently appears this catch basin sits right in the transition area according to the Site Plan.
14. Is there a pedestrian ramp/curb cut where the sidewalk ties into the parking lot for access from the parking lot? If so, confirm the curb transition for the catch basin can occur.

Sheet CU402:

15. The Town would like to see catch basins outside of driveways when possible. Please adjust where possible.
16. Confirm catch basin locations with the curb transitions to ensure constructability.

Sheet CE100:

17. Fix the overlap of text and hatch within the Erosion Control Legend. This appears on multiple sheets. Please fix all instances.

Sheet CE400:

18. Please label the silt fence outlet located at the end of the TSB #1 rip rap dissipator.
19. Please include the detail number (and sheet number) in the callout for all riprap dissipaters.
20. Please add the Construction Entrance to the Erosion Control Legend.
21. Label size and slope of all temporary drainage piping or refer to the sheet where it is detailed.
22. Delete the leader line that is pointing to nothing (near the staging and laydown area).
23. We recommend indicating the sheet number/detail number for each measure. The labels can be in the callouts and/or on the legend to make it easy to reference those details. This is not a requirement.

Sheet CE401:

24. Label size and slope of all temporary drainage piping or refer to sheet where it is detailed.

Sheet CE413:

25. Show existing and proposed (Phase 5) storm drainage piping on this sheet (within the offsite areas).

26. Please add to this note a reference to CE500 Stage 2 Erosion Control construction sequence where this is described in more detail.

Sheet CE130:

27. Update the NPDES documentation notes table and temporary seeding schedule for this project.

Sheet CE500:

28. It would seem that by plugging the downstream storm structure (to prevent stormwater from flowing to the Phase 3 SCM) and not plugging the upstream catch basins, the storm pipes could stay full and/or sediment will settle out within the piping over time which could require cleaning out once the system is ready to be brought on line. If the Kalas Falls Stage 3 basin is still set up as a Sed Basin, could it function as an erosion control measure for Phase 5?
29. The Pipe Summary (ESC) table headings appear to be flip flopped. It looks like the structures under "Downstream Structure" are actually upstream and vice versa. The storm drainage table on sheet CD110 is the same. Please revise both tables accordingly.
30. Confirm if the first blank cell in the Pipe Summary (ESC) table should be structure 30B.
31. Confirm if the third cell in the Pipe Summary (ESC) table should be structure 376 (this appears to be the case based on plan sheet CE-400).
32. Cross check the Structure Summary (ESC) table with the plans, there are several discrepancies with what is shown on the erosion control plans.
33. Delete the redundant word in Stage 1 E&SC Construction Sequence note 6.

Sheet CG400:

34. Please confirm if the temporary easement needs to be adjusted at the north end of the site adjacent to Graymont Oaks Drive to include the extent of the limits of disturbance.
35. Please provide spot elevations on all parking lots to confirm positive drainage and ADA compliance. This comment applies to all proposed parking lots on the site.

Sheet CG402:

36. Please confirm that the proposed grading on either side of Graymont Oaks Drive at the culvert crossing does not exceed 3:1 slopes.

Sheet CD200:

37. In the 385-DI to 385A-CB Profile, is the inlet a FES or a DI? The profile says 385B-DI which is not labeled, so assuming this is a DI but profile does not look like a DI. Please label for clarification.

Stormwater Drainage Report:

We noticed several instances throughout the report where stormwater HGLs do not stay within the pipe. All HGLs must stay within the pipe for 10-year events. There are several locations this is not the case currently. Please review and revise accordingly.

Appendix B: It looks like there may be more drainage area that will be draining to 32A-FES. We have delineated what appears to be the additional area that will drain to that FES. Please review the drainage area and revise if needed. If revised, check drainage pipe sizing with added flow.