

MEMORANDUM

Date: July 2, 2025
To: Michael Elabarger
From: Jacqueline Thompson, PE
Subject: Harris Creek Farms
CID-25-03, 1st Submittal
Town of Rolesville, NC

This memo summarizes the review of Construction Infrastructure Drawings and Erosion Control & Stormwater Report & Calculations submitted by QuanTech Engineering, dated 05/30/2025 (received 06/04/2025).

Cover:

1. Update the case number to "CID-25-03".
2. Provide signing and striping plans for the subdivision.
3. Provide plan/profile sheets for the greenway.
4. We have noted that the lighting plan is pending per the submitted checklist. Please note that a lighting plan will be required for approval of the CID.

Sheet 3:

5. Since this sheet includes demolition, please change the sheet name to "OVERALL EXISTING CONDITIONS AND DEMOLITION PLAN".

Sheet 7:

6. Please confirm the appropriate property owner agreements are in place for the access easement due to the roadway crossing multiple properties, in addition to the church.
7. The property to the north of the existing gravel drive (between A4 and A6) does not have a label. Please provide a label and property information if needed.

Sheet 10:

8. Label the proposed greenway with dimensions and material.
 - a. This applies to all applicable sheets.
9. Label the radii at the intersection of Gideon Drive and the proposed paved access.
10. Please provide more detail for the connection of Gideon Drive and the paved access. Details should include, but not be limited to, dimensions of pavement on the site plan and a typical section with pavement details. There needs to be enough detail so the contractor knows how to construct the paved access and the Town inspector can confirm it is being constructed correctly.
11. It is hard to see the crosswalks and parking lot striping with the current line colors. Adjust plotting settings so striping shows up better.
 - a. This comment applies to all applicable sheets.

Sheet 11:

12. Provide a clear differentiation (preferable with hatching) for the mulch greenway versus the asphalt greenway.

Sheet 12:

13. Please provide an update of the status on the lot owner permissions. Once permission has been granted, these notes should be removed. If permission isn't granted, remove the proposed sidewalk from the plan.
14. Please provide dimension callouts for the ROW along Jonesville Road even if it "varies".

Sheet 14:

15. Include appropriate site details, including but not limited to, details of greenway, curb ramp, curb drainage transition (rolled curb to standard curb) and driveway apron. Include an additional sheet if needed.
16. Provide a typical cross section of the greenway and reference the section within the drawings.
17. Include pavement design in road section details.

Sheet 16:

18. General note applicable to the entire plan set: The Town prefers black and white plans. Please provide a black and white set for the next submittal.
19. Label the soil stockpile circles on this sheet.
20. Label the red hatching (contractor parking) and add to the legend.
21. Show the 30' Sanitary Sewer Easement lines or remove the callout.

Sheet 17:

22. The perimeter buffers are labeled "parameter" throughout the Erosion Control sheet. Please revise.
 - a. This comment applies to all applicable sheets.
23. Reference Erosion Control details on the legend where applicable. Note that "Arc inlet protection" is called "Horseshoe Inlet Protection" on the detail.

Sheet 19:

24. Confirm wetlands encroachment permitting has been submitted/approved for all areas where the plans show limits of disturbance encroaching into the wetlands.
25. Adjust limits of disturbance lines to be within the property boundary or provide/label easements. This comment applies to all erosion control sheets.
26. The limits of disturbance along the proposed paved access should be shown within the easement. Also, label the easement.

Sheet 20:

27. Confirm wetlands encroachment permitting has been submitted/approved for all areas where the plans show limits of disturbance encroaching into the wetlands.

Sheet 21:

28. The limits of disturbance along the proposed paved access should be shown within the easement. Also, label the easement.
29. The limits of disturbance along the proposed sidewalk needs to remain within the ROW/easement. Also, label the ROW and sidewalk easement.
30. Confirm wetlands encroachment permitting has been submitted/approved for all areas where the plans show limits of disturbance encroaching into the wetlands.
31. It is unclear what the callout "TREE LINE TO BE REMOVED (TYP.)" is pointing to. Please clarify.
32. The limits of disturbance line along Jonesville Road is not accurate given the road widening in this area. Adjust to account for Jonesville Road construction. Also, when will Jonesville Road widening occur? If construction will occur during Stage 2 Erosion control, remove widening linework from Stage 1.
33. Label the Jonesville Road ROW and provide dimension (even if it is "varies").

Sheet 25:

34. Please confirm if the intent is for the construction crew is to park outside of curb; if not, please adjust the hatch.
35. Please confirm if the intent is for the soil stockpile area to remain after the parking lot is paved; if not, remove it from EC Stage 2.
36. Fix property detail overlapping text.
37. Add "permanent diversion ditch" to the legend.
 - a. This applies to all Stage 2 EC plan sheets.

Sheet 27:

38. Please confirm if the intent is for the soil stockpile area to remain after the street is paved; if not, remove it from EC Stage 2.

Sheet 33:

39. Fix the sheet map; Sheet 37 appears twice.

Sheet 36:

40. Label all greenway culverts (size, inverts). Show riprap at outlet. If these are not culverts, please label them and provide a detail.
 - a. This comment applies to all applicable Grading and Drainage plan sheets.
41. Please add the sheet number for each SCM to reference the SCM details/profiles.
 - a. This comment applies to all SCMs on Grading and Drainage plans.
42. Confirm that retaining walls will be privately owned/maintained. If not, provide public maintenance easements.
43. Show proposed parking lot striping to confirm ADA accessibility requirements are met. Handicap spaces require a pedestrian ramp for access where there is curb and gutter.
 - a. This comment is applicable for all parking lots.

44. Please clarify if the dashed lines with arrows are meant to signify ditches. Please label them and add the line type to the legend.
45. Add rim and invert information to all catch basins, yard inlets, etc.
 - a. This comment applies to all grading and drainage plan sheets.
46. Add drainage pipe labels (length, size, material, slope).
 - a. This comment applies to all grading and drainage plan sheets.

Sheet 37:

47. Please confirm that the catch basins CI-202 and CI-209 are located at low point; with the sheet break, it is hard to tell.
48. There is a drainage structure and what appears to be a short run of pipe just south of property number 24. Please confirm if this is a yard inlet. Is the intent to provide a drain under the wall? Label the inlet (name and rim elevation), pipe (diameter, inverts), and design/provide rip rap at the outlet.
49. Show where the matchline to Sheet 38 starts to make it easier to follow from one plan sheet to the other.

Sheet 38:

50. Confirm that the grading along the cul-de-sac reflects the curb and gutter. Grading doesn't seem to match what would happen with curb and gutter.
51. Please confirm that positive drainage will occur to the yard inlets behind lots 1 through 6 once the building pads are graded.
52. Please label the stormwater structure upstream of YI-404.
53. Please label the stormwater pipes and structures behind lots 14 and 15 and design/show rip rap at the outlet.
54. At FES-400, design/show rip rap at outlet.
 - a. This comment applies to all stormwater outlets.
55. Please confirm that the Town's standards are being met as they relate to ADA compliance on greenways. Refer to the Town's Standard Engineering Manual (Section 2: Greenways) for more information. Provide plan/profile sheets of the greenway for further review.
<https://www.rolesvillenc.gov/sites/default/files/uploads/tor-standard-engineering-manual-2023.pdf>
56. Revise the matchline at the bottom of the sheet to "SEE SHEET 39".

Sheet 39:

57. Revise the sheet number to 39.

Sheet 46:

58. Fix text overlap near MH-117.
59. All street light poles should be located behind the sidewalk. Revise accordingly.
60. The proposed light pole and existing electrical pole along Gideon Drive near the tie in with the proposed paved access are in very close proximity and very close to the sidewalk. Confirm constructability of this.

61. Please show driveway locations for individual lots to check for conflicts.

Sheet 48:

62. There appears to be a conflict with the electrical pole and the sidewalk near the northern property line of the Henry Alston parcel. Revise as required.

63. Please revise the callout referencing the Rolesville Project PSP-23-03 to show the CID number instead.

Sheet 51:

64. In answer to the question on the submitted checklist. Yes, landscape plans must be signed and sealed by a Landscape Architect.

Sheet 53:

65. Label all ROWs in plan view within plan/profile sheets.

66. Vertical curve lengths should be in 50-foot increments. Please revise all vertical curves accordingly.

67. In the profile views, the pipes that overlap text make text hard to read. Please revise so text is easier to read.

a. This applies to all plan/profile sheets.

Sheet 54:

68. Please eliminate vertical curves where there is minimal grade change. Vertical curves are required where grade change exceeds +/- 1.5%.

69. Provide a minimum of a 0.2-foot drop between inverts for sanitary sewer.

a. This applies to all sanitary sewer piping.

70. Provide a minimum of a 0.1-foot drop between inverts for storm sewer.

a. This applies to all storm sewer piping.

Sheet 58:

71. Please add a label here calling out minimum depth requirement.

Sheet 59:

72. Fix overlapping text within SCM-1 Reach-2 Profile.

73. Confirm that there is a minimum of 24 inches cover over the storm pipe at CI-146.

Sheet 60:

74. Fix overlapping text within SCM-2 Reach-2 Profile.

75. Confirm that there is a minimum of 24 inches cover over the storm pipe at CI-236. Provide a minimum of 24 inches of cover over storm drainage.

a. This applies to all storm drainage.

Sheet 61:

76. Fix overlapping text within Storm East Reach-2 Profile.

Sheet 62:

77. Provide an existing conditions sheet for the Jonesville Road Widening area and more clarity about what is new pavement versus mill & overlay. Limits should be shown on the plan view, or with notes, or a typical section.
78. Please show any signs along Jonesville Road and provide details.
79. Remove pipe alignment lines from the striping plan.
80. Fix overlapping text.

Sheet 63:

81. Provide 0.1-foot drop between inverts for storm sewer.
 - a. This applies to the entire plan set.

Sheet 64:

82. Please add a legend or notes to provide clarity on the intent of this design. These should include but not be limited to information about milling extents and pavement design.

Sheet 65:

83. Proposed grading appears to be filling over the outlet of the existing culvert that crosses Mitchell Mill Road. Confirm this culvert will still work with proposed grading.
84. Proposed grading appears to be cutting along an existing retaining wall. Confirm this will not impact the integrity of the wall.
85. Provide lengths and inverts for all proposed culverts.
86. Label existing signs and whether they need removal/replacement.
87. The existing tele-comm structure appears to be impacted by road widening. Confirm if this will be relocated or removed and revise plans accordingly.
88. Where there is proposed grading occurring next to existing tele-comm structure and power pole, please confirm these will not be impacted or indicate their removal/relocation.
89. Proposed grading appears to be cutting along an existing retaining wall. Confirm this will not impact the integrity of the wall.
90. Provide a separate existing conditions/demolition plan for the Mitchell Mill intersection.

Sheet 70:

91. Confirm how the proposed waterline will be constructed without interfering with driveway culverts. Will driveways require patching? Provide additional notes and information as needed.
 - a. This comment applies to all the driveway crossings.
92. Please provide more information about the proposed method of installing the proposed waterline under the existing culverts. Confirm if the culverts will need to be replaced.

Sheet 75:

93. Proposed waterline is shown with existing grading. Please confirm minimum cover will be provided for the future condition as well.
 - a. This applies to all sheets related to this proposed waterline.

Sheet 76:

94. If the proposed waterline will be installed during construction of widening, culverts will be removed. Therefore, show proposed condition after demolition in this plan.

Sheet 77:

95. If the proposed waterline will be installed during construction of widening, culverts will be removed. Therefore, show proposed condition after demolition in this plan.

Sheet 78:

96. Adjust the proposed gate valve to align with proposed water line.

Sheet 79:

97. Show the proposed watermain extending into site and reference the drawing where this connects to subdivision waterline.
98. Clearly depict the proposed condition versus future condition.

Erosion Control & Stormwater Report & Calculations:

Cover:

99. Please provide rip rap calculations for all stormwater outfalls.
100. Please provide gutter spread calculations.
101. Please provide culvert calculations for all proposed culverts.

Page 76:

102. This sheet is titled "Storm 300 Outfall" but this is the 2nd sheet with this title. Please confirm if this is supposed to be "Storm 400 Outfall".