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MEMORANDUM

Date: December 4, 2024
To: Michael Elabarger
From: Jacqueline Thompson, PE
Subject: Hills at Harris Creek
CID 24-07, 1st Submittal
Town of Rolesville, NC

This memo summarizes the review of the Construction Plans submitted by Strong Rock Engineering Group, dated 11/01/24 (received 11/04/24).

Sheet C-1.0:

- 1) Add the submittal and date to the title block.
- 2) Include erosion control plan sheets.

Sheet C-6.00:

- 3) The portion of the greenway between Igneous Street and Flatrock Ridge Street is not shown on the grading plan; please include.

Sheet C-6.1:

- 4) Please include either:
 - a) all signing (eg. stop signs and barricades at dead end street stubs) and all pavement markings on the site plan (eg. stop bars)
 - b) a signing and striping plan separate from the site plan to include all signing and striping.
- 5) There are several items that need to be labeled on the sheet. These are shown on the markups as 5.a. through 5.h.
- 6) Please confirm the appropriate permitting is being completed since the retaining wall easement is within the stream buffer.
- 7) Please confirm crosswalk locations. Please see the Town's Standards Manual for pavement marking requirements.

Sheet C-6.3:

- 8) Please confirm the intent is to have the retaining wall easement inside the stream buffer and it is being permitted appropriately.

Sheet C-6.5:

- 9) Please confirm the intent is to have the retaining wall easement inside the stream buffer and it is being permitted appropriately.

Sheet C-7.1:

- 10) Please confirm if the waterline shown along Mitchell Mill road is a proposed water line. It appears to just end; confirm where it is being tied into and show that on plans. If dead-ended, call out the appropriate fittings and infrastructure. Please show the existing pipe and label.

Sheet C-7.2:

- 11) Please confirm if the waterline shown along Mitchell Mill road is a proposed water line. It appears to just end; confirm if it is tying into existing infrastructure. Please show the existing pipe and label.
 - a) Currently there is a blue water line; if this is supposed to be existing, please label accordingly.

Sheet C-7.7:

- 12) Revise the sheet extents to show where the sewer ties into existing.

Sheet C-8.1:

- 13) The following general comments apply to all grading and drainage plans:
 - a) Show the drainage easements anywhere a swale extends over 2 lots or more.
 - b) Show the building pads on the grading plans where mass site grading is being proposed to address the drainage between lots.
 - c) Confirm max slopes do not exceed 3:1 throughout the site.
 - d) All buffer and wetland impacts will need to be permitted.
 - e) If a retaining wall is adjacent to a pedestrian area and over 30" in height, provide safety fencing.
 - f) Show sewer and water utilities, and laterals grayed back to check for conflicts.
 - g) Submit a stormwater calculation package including HGLs for 10-year storm, HGLs for culverts with a 25-year storm, riprap calculations, gutter spread, etc.
- 14) There is a graded swale in the middle of buildable area; please revise.

Sheet C-8.2:

- 15) We have noted that you confirmed that the private driveway 2 has positive drainage to CB #37 and #36 during the PSP submittals, but please include spot elevations or a profile showing the details to confirm positive drainage.

Sheet C-8.3:

- 16) The grading at Lots 105-107 (adjust labels for legibility) is in the middle of the lot. Adjust the contours as needed and confirm the adequate buildable area is being provided.

Sheet C-8.4:

- 17) On the site plan, there is a greenway shown within the electrical easement. Please include it in the grading plan. Confirm the greenway maintains ADA compliance throughout.

Sheet C-9.0:

- 18) The Town of Rolesville follows the NCDOT Subdivision Roads Minimum Construction Standards minimum design criteria; the minimum K value is 30 for crest and sag curves on level terrain for local roads; Rolling terrain will be accepted in case-by-case situations. This comment applies to all profiles and curves.

Sheet C-9.1:

- 19) Confirm minimum separation is met at CB#45A.

Sheet L-1.2

- 20) Review and adjust the landscaping for conflicts with utilities and driveways.

Sheet L-1.6:

- 21) Revise the tree locations so they are not in the middle of the street of Magma Chamber Way.
- 22) A tree is currently on or near the retaining wall between Limestone Wall Lane and SCM#5. Revise as needed.

Sheet C-11.0:

- 23) Please clarify the intent of the Fire Plan sheets. Fire will need access down all streets not just the path shown in these Fire Plan sheets.

Sheet D1.0:

- 24) Due to the narrow pavement width for a 2-way section, the Town encourages a 2' concrete flush curb to provide support of the pavement, and additional driving surface for fire and garbage access.
- 25) Please see the Town of Rolesville Standards Manual for the pavement section; specifically, the top 3" lift shall be placed in 2-lifts.
- 26) Plantings are not allowed within the 5' strip; per the Standards Manual, this is a utility strip. A planting buffer will be needed behind ROW/sidewalk.
- 27) Please see the Town of Rolesville Standards Manual for the pavement section.
- 28) Add a pavement section to the 62' ROW section.
- 29) Rename this sheet "Typical Cross Sections" so it matches the information displayed.

Sheet D1.1:

- 30) Erosion Control details should be Wake County. Street and Storm details should be NCDOT. Sewer and Water details should be City of Raleigh. Please revise accordingly.