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# MEMORANDUM

Date: May 30, 2024

To: Michael Elabarger

From: Jacqueline Thompson, PE

Subject: The Learning Center Rolesville

SDP 23-07, 4<sup>th</sup> Submittal

Town of Rolesville, NC

This memo summarizes the review of site plan documents submitted by Kimely Horn, dated 09/23/2023 (received 05/05/2024).

## Sheet CO.O

1. There were minor changes to the site plan that may have affected the proposed impervious area. Verify that the proposed impervious area is up to date in the site data table.

## Sheet C2.0

- 2. The updated curb and gutter design at the Old Rogers Road driveway will require vertical curb transitions. Show transitions on plan and provide an NCDOT vertical curb transition detail.
- 3. Please verify the layout of light pole, bollards, fence, and sidewalk between parking and playground area.
- 4. Update the accessible route based on sidewalk change near the entry canopy and main building signage.
- 5. The LAPP project is constructing intersection improvements at Old Rogers Road and Main Street. Coordinate for pedestrian ramp improvements, island removal, and cross-walk to ensure this project aligns with what the LAPP project is constructing.

## Sheet C3.0

- 6. Repeat: Ensure all leaders point to their respective object.
- Verify drainage will function properly between the trench drain and 12" PVC leading to the underground detention at the Old Rogers Road driveway given the inlet and outlet angle at CO-1 is designed to less than 90 degrees.
- 8. In cases where two storm pipes are shown (OCS to FES-2 and CO-2 to CB-04), only show the pipe that is to be constructed and delete the extra.
- 9. Sheet C1.0 shows the shrub and tree line northwest of the proposed bioretention area to be demolished. Remove this shrub and tree line from Sheet C3.0.

- 10. Provide a detail for storm outlet pipe through retaining wall.
- 11. It is understood that gasketed pipes will have a 0% slope and act as additional detention storage but a standard drop of 0.2' between invert in and invert out should still be used to ensure positive drainage to bioretention area. This applies to all storm pipes.
- 12. Repeat: The highlighted area appears to be draining off site. It is understood that plans are in review with NCDOT but based on contours, stormwater from new impervious parking lot appears to be draining to adjacent site. Adjust grading or stormwater system in this area to capture stormwater.
- 13. Repeat (leaving comment for note until approval is provided): Storm structures connecting into NCDOT drainage system will need to be reviewed by NCDOT and Hydraulic Division for flow rate being added into their existing system. NCDOT to provide requirements for encroachment and permitting on storm connection.

### Stormwater Impact Analysis

14. Provide HGLs for storm network for review of surcharge in relation to underground detention.