Station	85+80	to	93+95	-L-
	93+95	to	108+57	-L-LT
	93+95	to	108+51	-L-RT
	12+34	to	26+82	-Y11-REV
	17+50	to	24+32	-Y11-DET
	0+00	to	4+41	-RP-A
	0+00	to	6+14	-RP-B
	0+00	to	4+17	-RP-C
	0+00	to	7+33	-RP-D
	8+88	to	11+05	-Y13-REV
	10+00	to	11+29	-DR-1

This segment begins west of –Y11- (Ranch Road) and ends west of Little Creek. The topography is typical of the Coastal Plain Province being generally flat with wide meandering floodplains. To east of –Y11- (Ranch Rd.), the topography is more indicative of the Piedmont with gently rolling hills and wide floodplains, although some of the smaller channels are very incised. There is a general downward grade to the east with an elevation range of 90 meters near the beginning of this segment to 53 meters at Little Creek. The construction in this segment generally consists of fills and cuts less than 6 meters high, although some fills are up to 12 meters high and cuts up to 15 meters high proposed.

Residual soils were encountered in all but a few shallow borings within this segment and are derived from the weathering of the metamorphosed granite underlying this segment of the project. These soils consist of red-brown, orange-brown, and tan, soft to very stiff, dry to wet, silty and sandy clay (A-6, A-7-5, A-7-6) with lesser amounts of red-brown, orange-brown, tan and green-gray, medium stiff to hard, moist to wet, sandy and clayey silt (A-4, A-5). Tan, brown, and green-gray, loose to dense, dry to wet silty sand (A-2-4) is also present in isolated areas. All of the residual soils had mica in them ranging from a trace to highly micaceous. The clays have low to high plasticity indices (11 to 50) that generally decrease with depth.

Coastal Plain soils were encountered as isolated pockets of cap material that were usually 0.5 to 2 meters thick. These soils predominantly consist of red-brown to brown to tan, soft to stiff, moist, silty and sandy clay (A-6, A-7-5, A-7-6) with some tan to brown, soft to medium stiff, moist, sandy silt (A-4) and loose, moist, silty and clayey sand (A-2-4). Most of these soils contained some rounded gravel. The clays have low to high plasticity indices (14 to 46) but were generally below 26 for this segment of the project.

Alluvial soils were encountered within the flood plain of Lick Creek and several of its unnamed tributaries. These soils consist of tan to brown to green-gray, soft, moist to wet sandy clay (A-6), brown to gray, very soft to soft, moist to wet sandy silt (A-4), and gray, tan, and brown very loose to loose, moist to wet, silty and clayey sand (A-2-4, A-2-6) with a trace of gravel. Some of these soils have a trace of organics. The silts and sands are only slightly compressible while the clays are moderately compressible

Rock was encountered in several borings in this project segment. Most of these locations are in areas of fill in the vicinity of the of Lick Creek or its tributaries. Rock is present above or within 2 meters of grade in two areas: station 106+50 to 107+70 (-L-LT) and station 25+40 –Y11-REV. Rock is also present within the area of a proposed channel change near station 25+00 –Y11-REV. The rock is metamorphosed granite of the Raleigh Belt. Soft weathered rock was encountered in several borings.

Groundwater was encountered in most of the borings in this segment of the project. Groundwater was encountered as much as 3 meters above the proposed grade and was above or within 2 meters of grade in six different areas within this segment.

Respectfully submitted,

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