



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

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STATE PROJECT: 8.2494001 (U-2717)
FEDERAL PROJECT: STP-1113 (2)
COUNTY: Guilford
DESCRIPTION: High Point – SR 1113 (Kivett Drive) from Pendleton St. to US 29-70
SUBJECT: Geotechnical Report – Inventory

Project Description

The project is located in southwest Guilford County within the High Point city limits. The project consist of a variable width widening of SR 1113 (Kivett Dr.). Also, construction of a new bridge and relocation of the existing ramps for the US 29/70 interchange.

Subsurface information is provided for the following survey lines.

Line	Station
-L-	10+00 to 43+85
Ramp A	0+00 to 5+54
Ramp B	0+00 to 3+11
Ramp C	0+00 to 4+55
Ramp D	0+00 to 3+18
Loop C	0+00 to 3+44

Areas of Special Geotechnical Interest

1) Ground Water: Ground water was encountered within 2 meters of subgrade at the following locations:

-Line-	Station
-L-	26+00
-L-	34+80
Ramp B	1+00
Ramp C	1+40

2) Hard Rock: No hard rock was encountered during this investigation.

3) Artificial Fill: Artificial fill was encountered along the center line of Ramp C at approximately station 1+50 to 2+50. The area contains approximately 2 meters of mixed soil, gravel, concrete blocks, bricks, rebar and some wood material. At the time of this investigation soil material was still being dumped.



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-2717	3A	47

4) High PI Clays: The following areas of residual clay soils have a moderate to high plastic index (a PI of 35 or greater) and are within 2 meters of grade.

Line	Location	Sample Depth	PI
-L-	13+00 (LT)	0.10 – 1.20 m	53
-L-	17+20 (RT)	0.15 – 1.41 m	60
-L-	22+00 (RT)	0.00 – 0.80 m	45
-L-	22+60 (RT)	0.20 – 1.30 m	51
-L-	28+00 (LT)	0.15 – 0.30 m	42
-L-	29+00 (LT)	0.15 – 0.60 m	56
-L-	31+00 (RT)	0.60 – 0.90 m	58
-L-	34+00 (RT)	0.45 – 1.20 m	76
-L-	35+40 (LT)	0.50 – 1.00 m	37
-L-	36+00 (LT)	0.00 – 0.80 m	58
-L-	36+00 (LT)	0.80 – 2.30 m	45
-L-	36+80 (LT)	0.00 – 1.50 m	51
-L-	37+60 (RT)	0.15 – 1.30 m	48
-L-	43+00 (LT)	0.15 – 1.30 m	45 (Ref.)
Ramp A	0+40 (LT)	0.00 – 1.30 m	65
Ramp A	2+20 (RT)	0.60 – 1.10 m	36
Ramp B	2+60	0.00 – 2.27m	37

Physiography and Geology

The project is located in the Piedmont Physiographic Province. The topography is gently rolling hills. Drainage for the project corridor is good and is provided by unnamed creeks.

Geologically the project consist of residual soils underlain by a metamorphosed gabbro and diorite of the Carolina Slate Belt.

Soils

Soils encountered during this investigation are separated into three categories, residual, saprolitic and artificial embankment soils.