

Embankments are man-made fills built during construction of existing roadways. Roadway embankment soils overlie the natural ground along -L- from station 10+00 to 21+00 and 29+00 to 36+00. Embankment soils were also noted along -Y- from station 13+00 to 15+00. These embankment soils are 0.5 to 6 feet thick and consist of loose fine to coarse sand (A-2-4) and generally exhibit good to excellent engineering properties.

STATE PROJECT: 8.7326024 W-3413
 FEDERAL PROJECT: STP-1423(2)
 COUNTY: Onslow
 DESCRIPTION: SR 1423 from North of SR 1411 to SR 1413
 SUBJECT: Geotechnical Report - Inventory

Project Description

The proposed project is located on SR 1423 east of SR 1427 to just west of SR 1413 approximately 1 mile northeast of Piney Green. The roadway portion of the project will primarily consist of widening and slight realignment of the existing roadway. The investigation of subsurface conditions was confined to the corridor of proposed new construction.

The following base lines were investigated for this project:

<u>Line</u>	<u>Station</u>
-L-	36+00 to 56+00
-L-	85+00 to 127+00

Areas of Special Geotechnical Interest

- 3) The entire project contains soft to medium stiff silt-clay soils which typically exhibit fair to poor engineering properties and may cause subgrade problems.
- 4) The following intervals were found to exhibit a high water table, seasonal high ground water or the potential for ground water related construction problems:

<u>Line</u>	<u>Station</u>
-L-	43+00 to 56+00
-L-	93+00 to 127+00

Physiography and Geology

The project corridor is located in Onslow County on upland terrain along existing SR 1423 between SR 1427 and SR 1413. Topography is typical of the Lower Coastal Plain and ranges from flat to gently sloping. Ground elevations typically range from 20 to 45 feet.

The geology of this region primarily consists of Recent to Pleistocene sediments consisting of silt-clay and granular sediments. The project area is drained by man-made ditches and Little Northeast Creek that flow into the New River. Surface drainage is fair to poor throughout the proposed corridor due to the relatively flat terrain.

Ground Water

Ground water data was collected primarily in February 2002 during average rainfall conditions. During our investigation, the water table was generally 2 to 5 feet below the natural ground surface.

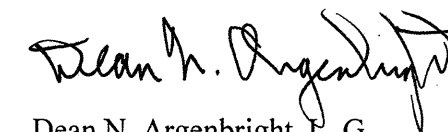
Soils

Soils encountered during this investigation are separated into two major categories based on origin and published data. These categories are upland and embankment soils.

The upland sediments primarily consist of 1 to 4 feet of soft to medium stiff clayey sandy silt (A-4) and silty sand (A-2-4) underlain by 4 or more feet of soft to medium stiff sandy and silty clay (A-6, A-7-6). Moisture content of tested silt-clay samples range from 18 to 36 percent. In deeper borings, medium stiff silt (A-4) and very loose to medium dense fine to coarse sand (A-2-4) underlie the clay soils. Fabric for soil stabilization and/or undercutting the upland cohesive soil may be required to assist in stabilizing portions of the new alignment and areas of widening.

Embankments are man-made fills built during construction of existing roadways. Roadway embankment soils overlie the natural ground along the entire project. These embankment soils are 0.5 to 4 feet thick and consist of loose fine to coarse sand (A-2-4) and generally exhibit good to excellent engineering properties.

Respectfully submitted,



Dean N. Argenbright, E. G.
 Project Geologist

DNA