

is part of the Charlotte Belt and is underlain by metamorphosed mafic rock types. The topography consists of gently rolling hills and gently sloping interstream areas ranging in elevation from

approximately 680 to 820 feet. The existing US 70 project corridor is surrounded by businesses, residential homes, and open fields. Many small streams and wet weather drainage features bisect the project.

Soil Properties:

1. Residual Soils:

Residual soils are derived from in place weathering of parent materials. They occur in a variety of consistencies, classifications, and stratigraphic sequences. Residual soils are further subdivided into clays, silts, and sands.

Clays are found consistently throughout the project corridor as both near surface soils and subsoils. They consist of medium stiff to hard tan-brown, red-brown and gray silty sandy clay, sandy silty clay and sandy clay (A-6, A-7-5, A-7-6) up to 32 feet thick. These soils are typically well drained and possess Atterburg Limits in the intermediate range. Soil test results for these soils indicate a plasticity index range of 11 to 62 and a liquid limit range of 27 to 112.

Silts encountered on the project were of both the A-4 and A-5 AASHTO Classifications and occur as both near surface soils and subsoils. They consist of medium stiff to hard red-tan, tan, and gray-white clayey sandy silt, and sandy silt with thicknesses up to 30 feet.

Sands encountered on the project were of the A-2-4 AASHTO Classification and occur as both surface soils and subsoils with a thickness of up to 15 feet. They consist of medium dense to very dense gray, gray-white and brown silty sand.

2. Alluvial Soils:

Alluvial soils originate from water transportation and deposition in a floodplain environment. These deposits are shallow in many cases, but range up to approximately 10 feet in thickness adjacent to creeks and drainage features bisecting US 70. Alluvial soils range in consistency from very soft to stiff and are comprised of silty sandy clay and sandy silty clay (A-6, A-7-5) along with sandy silt (A-4).

3. Fill Soils:

Fill soils encountered on the project are existing roadway fill soils associated with existing US 70 and tie in roads. A single area of artificial fill exists right of -L1- stations 60+60 to 61+50 and contains medium stiff sandy clayey silt with concrete debris.

Rock Properties:

For the scope of this investigation, rock is defined as that material which refuses penetration of power augers. Hard rock was encountered in a single boring right of -L2- station 188+10. Hard rock is well below proposed grade in this occurrence.

Groundwater:

Groundwater was never encountered in residual soils during our investigation. In alluvial floodplain areas the water table is sometimes present within 5 to 7 feet of the ground surface.

Well Locations:

Wells discovered within the proposed project corridor during our investigation were located at the following locations:

<u>Survey Line</u>	<u>Station / Offset (m)</u>
-L1-	13+35, 55' LT
-L2-	135+25, 90' RT
-L2-	202+75, 95' LT
-L2-	220+00, 110' RT

Respectfully Submitted,

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