

Artificial fill was encountered at two isolated areas. These soils vary from gray slightly silty fine sand (A-3) with trace of gravel to medium dense, tan-gray silty fine sands (A-2-4).

<u>Line</u>	<u>Station</u>
-L-	32+80 to 34+80
-L-	185+00 to 186+75

### Groundwater

Groundwater was encountered in the low-lying areas of the project near the drainage features and proposed culvert locations. However, groundwater was not encountered above or within 6 feet of proposed grade throughout most of the project.

### Geotechnical Descriptive Analysis

For descriptive purposes, the project has been divided into three segments. The division of the alignments into three segments is based on a combination of cut and fill relationships and distribution and character of subsurface materials.

Segment I -L- Stations 31+50 to 40+50  
 -L- Stations 117+30 to 124+50  
 -L- Stations 183+25 to 185+00  
 -Y2- Stations 15+00 to 17+00  
 -DET2- Stations 11+25 to 13+40  
 Noise Wall Stations 183+75 to 186+70

Segment I consists of alignments from the beginning of the project at the bridge structure over Beaver Creek and along the alignment where roadway embankment fill will be placed over very loose to loose sands and very soft to soft silts and clays with varying organic matter contents, wet to saturated moisture contents and shallow groundwater conditions. The conditions are typically associated with existing drainage features along the alignment. Approximately 11 percent of the investigated alignment falls within Segment I.

Groundwater conditions are typically at the ground surface or within three feet of the ground surface.

Soils encountered consist of alluvial sands, silts and clays with areas of muck to depths of 1.0 to 12 feet beneath the ground surface. The description of alluvial soils are described in the Soil Properties section.

Segment II -L- Stations 41+25 to 50+00  
 -L- Stations 134+75 to 137+10  
 -L- Stations 137+75 to 140+50  
 -L- Stations 174+50 to 181+75  
 -L- Stations 186+85 to 195+00

Segment II is distinctive due to the amount of cut depths to reach proposed grade. Approximately 12 percent of the investigated alignment falls within Segment II. Up to 22 feet of cut is anticipated in these sections with the

soils consisting of very loose to very dense clayey to silty coarse to fine sands (A-3, A-2-4). Some layers of hard fine sandy silty clay (A-6) are also anticipated above proposed grade.

Stabilized groundwater levels were not encountered above proposed grades in these areas. However, perched water conditions may exist above the clay layers during the typically wetter periods of the year.

Segment III -L- Stations 13+80 to 31+50  
 -L- Stations 40+50 to 41+25  
 -L- Stations 50+00 to 117+30  
 -L- Stations 124+50 to 134+75  
 -L- Stations 137+10 to 137+75  
 -L- Stations 140+50 to 174+50  
 -L- Stations 181+75 to 183+25  
 -L- Stations 185+00 to 186+85  
 -L- Stations 195+00 to 211+93.67  
 -Y1- Stations 10+60 to 12+50  
 -Y2- Stations 10+00 to 15+00  
 -Y2- Stations 17+00 to 17+83.88  
 -Y3- Stations 11+63.26 to 17+69.55  
 -Y4- Stations 10+00.00 to 14+24.00  
 -Y5- Stations 10+00.00 to 11+73.65  
 -Y6- Stations 10+00.00 to 12+20.87  
 -Y7- Stations 11+00.00 to 12+70.00  
 -Y8- Stations 15+03.36 to 20+24.67  
 -Y9- Stations 11+58.66 to 13+50.00  
 -Y10- Stations 11+64.57 to 13+50.00  
 -Y11- Stations 12+47.00 to 15+00.00  
 -Y12- Stations 12+50.00 to 30+00.00  
 -Y13- Stations 15+00.00 to 19+00.00 (Rail Road)  
 -Y14- Stations 10+00.00 to 12+49.43  
 -Y15- Stations 10+00.00 to 28+51.05  
 -DET2- Stations 10+00 to 11+25  
 -DET2- Stations 13+40 to 15+08.66  
 Noise Wall Stations 183+00 to 183+75  
 Noise Wall Stations 186+70 to 192+00

Segment III consists of the remaining alignments which consist of cuts and fills over Coastal Plain deposits as described in the Soil Properties section of this report. These sections consist of widening existing roadways and new alignments with typical construction methods. Segment III makes up approximately 77 percent of the investigated alignment.