

**GEOLOGY OF THE SITE**

THIS SITE LIES IN THE LAKE PLAINS SECTION OF THE CENTRAL LOWLAND PHYSIOGRAPHIC PROVINCE. THE TOPOGRAPHY OF THIS SITE IS FLAT TO SLIGHTLY ROLLING. THIS SITE IS LOCATED WITHIN THE LACUSTRINE PLAIN AND LIES ALONG A BEACH RIDGE. THE SURFICIAL MATERIALS CONSIST MAINLY OF FINE SANDS AND SILTS WITH A FEW GRAVEL LAYERS. CLAYEY SILT GLACIAL TILLS UNDERLINE THE BEACH RIDGE DEPOSITS. BEDROCK OF THIS SITE CONSISTS OF SHALES OF DEVORIAN AGE.

**INVESTIGATIONAL FINDINGS AND OBSERVATIONS**

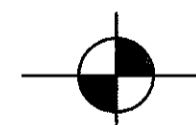
TEST BORINGS B-1 AND B-2 WERE ADVANCED THROUGH THE EXISTING BRIDGE ABUTMENT'S PAVEMENT AT STATIONS AND OFFSETS OF 3+240.09, 2.47 M LT. AND 3+223.97, 4.57 M RT., RESPECTIVELY. THE PAVEMENT SECTION CONSISTED OF 152 MM TO 178 MM OF ASPHALT AND 305 MM TO 457 MM OF LIMESTONE. THE SUBSURFACE MATERIALS IN GENERAL CONSISTED OF FILL OVER NATURAL DEPOSITS. THE FILL CONSISTED OF SAND, AND RANGED IN DEPTH FROM 2 M TO 2.5 M. THE NATURALLY DEPOSITED MATERIAL ENCOUNTERED BELOW THE FILL CONSISTED PRIMARILY OF MEDIUM DENSE COARSE AND FINE SAND WITH POCKETS OF GRAVEL DOWN TO DEPTHS OF 7 M AND 7.5 M BELOW THE EXISTING GRADE, FOLLOWED BY VERY STIFF TO HARD SANDY SILT. THE TEST BORINGS WERE TERMINATED IN A HARD SANDY SILT LAYER.

THE LABORATORY TEST RESULTS INDICATE THAT THE MOISTURE CONTENTS OF THE TESTED SOIL SAMPLES VARIED FROM "MOIST" TO "SATURATED". THE "SATURATED" SAMPLES WERE ENCOUNTERED IN THE SANDY LAYER IMMEDIATELY BELOW THE WATER TABLE.

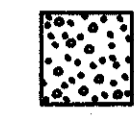

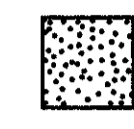


BEDROCK WAS NOT ENCOUNTERED IN THE TEST BORINGS.

PHREATIC WATER WAS OBSERVED AND MEASURED IN BOTH OF THE TEST BORINGS AT ELEVATIONS OF 201.95 AND 202.37 METERS. FOR SPECIFIC CONDITIONS AT VARIOUS DEPTHS, REFER TO THE INDIVIDUAL BORING LOGS WHICH FORM A PART OF THESE PLANS.

**LEGEND**

-  TEST BORING LOCATION
- TEST BORING PLOTTED TO VERTICAL SCALE ONLY - PROFILE
- X-Y-Z FIGURES BESIDE THE BORING LOG IN PROFILE INDICATE THE NUMBER OF BLOWS OF STANDARD PENETRATION TEST
- X = NUMBER OF BLOWS FOR FIRST 0.15 METERS
- Y = NUMBER OF BLOWS FOR SECOND 0.15 METERS
- Z = NUMBER OF BLOWS FOR THIRD 0.15 METERS
- TR ——— TOP OF ROCK
- W ——— FREE WATER
- ▼ ——— STATIC WATER LEVEL

**SYMBOLS OF SOIL TYPES**

-  GRAVEL
-  FINE SAND
-  COARSE AND FINE SAND/SAND
-  SANDY SILT
-  PAVEMENT COMPONENTS

<u>COMPONENT</u>	<u>SIZE</u>	<u>TERMS</u>	<u>RANGE</u>
BOULDERS	Larger than 200 mm	Trace	0 - 10%
COBBLES	200 mm to 75 mm	Little	10 - 20%
GRAVEL	COARSE 75 mm to 19 mm	Some	20 - 35%
	FINE 19 mm to 2.0 mm (#10 sieve)	And	35 - 50%
SAND	COARSE 2.0 mm to 0.42 mm (#10 to #40 sieve)		
	FINE 0.42 mm to 0.074 mm (#40 to #200 sieve)		
SILT	0.074 mm to 0.005 mm (#200 to 0.005 mm)		
CLAY	Smaller than 0.005 mm		

**NOTES**

THE SOIL PROFILE AND/OR STRUCTURE FOUNDATION INVESTIGATION SHEETS CONTAIN ALL AVAILABLE SOIL AND BEDROCK INFORMATION WHICH CAN BE CONVENIENTLY SHOWN. ADDITIONAL SUBSURFACE INVESTIGATION MAY HAVE BEEN MADE TO STUDY SOME ASPECT OF THE PROJECT. MORE INFORMATION, IF ANY, MAY BE OBTAINED FROM DISTRICT (12), THE BUREAU OF TEST AT 1600 WEST BROAD STREET, THE BUREAU OF LOCATION AND DESIGN, OR THE BUREAU OF BRIDGES AND STRUCTURAL DESIGN AT 25 SOUTH FRONT STREET IN COLUMBUS, OHIO.