

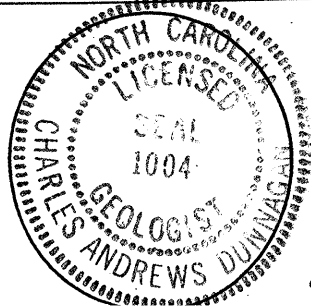
NORTH CAROLINA DIVISION OF HIGHWAYS

10F36

GEOTECHNICAL UNIT

SOIL AND ROCK CLASSIFICATION, LEGEND, AND ABBREVIATIONS

SOIL LEGEND AND AASHTO CLASSIFICATION				CONSISTENCY OR DENSENESS			
GENERAL CLASS.	GRANULAR MATERIALS (≤ 35% PASSING #200)	SILT-CLAY MATERIALS (> 35% PASSING #200)	ORGANIC MATERIALS	PRIMARY SOIL TYPE	COMPACTNESS OR CONSISTENCY	RANGE OF STANDARD PENETRATION RESISTANCE (IN - VALUE)	RANGE OF UNCONFINED COMPRESSIVE STRENGTH (KN / m <sup>2</sup> )
GROUP CLASS.	A-1 A-3	A-2 A-4 A-5 A-6 A-7	A-1-A-2 A-4-A-5 A-6-A-7	GENERALLY GRANULAR MATERIAL	VERY LOOSE LOOSE MEDIUM DENSE DENSE VERY DENSE	< 4 4 TO 10 10 TO 30 30 TO 50 > 50	N/A
SYMBOL				GENERALLY SILT-CLAY MATERIAL	VERY SOFT SOFT MEDIUM STIFF STIFF VERY STIFF HARD	< 2 2 TO 4 4 TO 8 8 TO 15 15 TO 30 > 30	< 25 25 TO 50 50 TO 100 100 TO 200 200 TO 400 > 400
% PASSING	#10 50 MX #40 30 MX 50 MX 51 MN #200 15 MX 25 MX 10 MX 35 MX 35 MX 35 MX 36 MN 36 MN 36 MN 36 MN	GRANULAR SOILS SILT-CLAY SOILS MUCK, PEAT					
(PASSING #40)	LL 6 MX PI 0	40 MX 41 MN 40 MX 41 MN 40 MX 41 MN 40 MX 41 MN 10 MX 10 MX 11 MN 11 MN 10 MX 10 MX 11 MN 11 MN	SOILS WITH LITTLE OR MODERATE AMOUNTS OF ORGANIC MATTER	HIGHLY ORGANIC SOILS			
GROUP INDEX	0	0 4 MX	SILT-CLAY SOILS				
USUAL TYPES OF MAJOR MATERIALS	STONE FRAGS. FINE SAND	SILT-CLAY SOILS	GRAVEL AND SAND				
PI OF A-7-5 ≤ (LL-30); PI OF A-7-6 > (LL-30)				GROUND WATER			
TEXTURE OR GRAIN SIZE				WATER LEVEL IN BORE HOLE [IMMEDIATELY AFTER DRILLING (I.A.D.) SOON AFTER DRILLING (S.A.D.) HRS.]			
BOULDER COBBLE GRAVEL COARSE SAND MED. SAND FINE SAND SILT CLAY				STATIC WATER LEVEL (AFTER 24 HRS.)			
GRAIN (mm) SIZE (IN)				PERCHED WATER (PW), SATURATED ZONE, OR WATER BEARING STRATA			
SOIL MOISTURE - CORRELATION OF TERMS				SPRING OR SEEPAGE			
SOIL MOISTURE SCALE (ATTERBERG LIMITS)				MISCELLANEOUS SYMBOLS AND ABBREVIATIONS			
FIELD MOISTURE DESCRIPTION				ROADWAY EMBANKMENT WITH SOIL DESCRIPTION			
GUIDE FOR FIELD MOISTURE DESCRIPTION				SOIL SYMBOL			
-SATURATED- (SAT.)				ARTIFICIAL FILL OTHER THAN ROADWAY EMBANKMENTS			
USUALLY LIQUID; VERY WET, USUALLY FROM BELOW THE GROUND WATER TABLE				INFERRED SOIL BOUNDARIES			
-WET- (W)				STRIKE AND DIP			
SEMISOLID; REQUIRES DRYING TO ATTAIN OPTIMUM MOISTURE				APPARENT DIP (NORMAL TO _____)			
-MOIST- (M)				ROD SOUNDING			
SOLID; AT OR NEAR OPTIMUM MOISTURE				MONITORING WELL			
-DRY- (D)				ABBREVIATIONS			
REQUIRES ADDITIONAL WATER TO ATTAIN OPTIMUM MOISTURE				ALLUV. ALLUVIUM			
ROCK DESCRIPTION				AUGER REFUSAL			
IN THE BROADEST MEANING, HARD ROCK IS CONSIDERED TO BE THAT INDURATED EARTH MATERIAL WHICH CANNOT BE SAMPLED BY CONVENTIONAL SOIL SAMPLING TOOLS OR TECHNIQUES. THE BOUNDARY BETWEEN SOIL AND ROCK IS ARBITRARY. TRANSITION BETWEEN SOIL AND ROCK IS OFTEN REPRESENTED BY A ZONE OF "WEATHERED ROCK". FOR THE PURPOSE OF THIS INVESTIGATION, THESE MATERIALS ARE DIVIDED AS FOLLOWS:				MIC. MICACEOUS			
TERM SYMBOLS DESCRIPTION				MOT. MOTTLED			
HARD ROCK (HR)				N BLOWS / 30 CM			
WEATHERED ROCK (WR)				NS NO SAMPLE TAKEN			
CORE RECOVERY (REC.)				ORG. ORGANIC			
ROCK QUALITY DESIGNATION (ROD)				REF. REFER TO			
				RES. RESIDUAL			
				S. SOFT			
				SAT. SATURATED			
				SD. SAND			
				SDY. SANDY			
				SED(S). SEDIMENT(S)			
				SL. SILT, SILTY			
				SLI. SLIGHTLY			
				SPT STANDARD PENETRATION TEST			
				TS. TOPSOIL			
				VST. VANE SHEAR TEST			
				V. VERY			
				W/ WITH			
BENCH MARK: No 2 - RR SPIKE IN BASE OF OAK TREE 17m RT -BL- STA 6+94. EL = 504.099							
STATE PROJECT NO. 8. 2860401							
T.I.P. NO. B-2583 F.A. NO. BRZ-1001(14)							
COUNTY MADISON ROUTE							
SITE DESCRIPTION BRIDGE ON SCHOOL DRIVE OVER FRENCH BROAD RIVER							
PROJECT GEOLOGIST CAD SUBMITTED BY GLASS							
PERSONNEL SHELTON GOSNELL BAILEY							
DATE SUBMITTED SEPT '00							



Signature: Charles Andrews Dunnington