NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

GEOTECHNICAL UNIT

ID STATE PROJECT NO. SHEET NO. TOTAL SHEETS R-0513A 6.469002T 2 10

SUBSURFACE INVESTIGATION

SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

		TEDIO AND DESIGNATIONS	A D D D D C C C C C C C C C C C C C C C
SOIL DESCRIPTION	GRADATION WELL CHARGE, INDICATES A COOR DEPOSEDITATION OF PARTICLE SIZES FROM FINE TO COARSE	TERMS AND DEFINITIONS	ABBREVIATIONS
SOIL IS CONSIDERED TO BE THE UNCONSOLIDATED. SEMI-CONSOLIDATED OR MEATHERED EARTH MATERIALS WHICH CAN BE PENETRATED	<u>MELL GRADED</u> - INDICATES A GOOD REPRESENTATION OF PARTICLE SIZES FROM FINE TO COARSE, <u>UNIFORM</u> - INDICATES THAT SOIL PARTICLES ARE ALL APPROXIMATELY THE SAME SIZE. (ALSO	ALLUVIUM (ALLUV.) - SOILS WHICH HAVE BEEN TRANSPORTED BY WATER.	BLOR BOULDER PL - PLASTIC LIMIT
WITH A CONTINUOUS FLIGHT POWER AUGER, AND WHICH YIELDS LESS THAN 199 BLOWS ACCORDING TO STANDARD PENETRATION	POORLY GRADED)	APPARENT DIP - THE DIP OF ROCK STRATA NOT PERPENDICULAR TO STRIKE.	CL CLAY PI - PLASTICITY INDEX
TEST (ASTM D-1586), SOIL CLASSIFICATION IS BASED ON THE AASHTO SYSTEM AND BASIC DESCRIPTIONS GENERALLY SHALL INCLUDE:	GAP-GRADED NDICATES A MIXTURE OF UNIFORM PARTICLES OF TWO OR MORE SIZES, ANGULARITY OF GRAINS	AGUIFER - A WATER BEARING FORMATION OR STRATA.	COB COBBLE n - POROSITY
CONSISTENCY, COLOR, TEXTURE, MOISTURE, AASHTO CLASSIFICATION AND OTHER PERTINENT FACTORS, SUCH AS, MINERALOGICAL	THE ANGULARITY OF ROUNDNESS OF SOIL GRAINS ARE DESIGNATED BY THE TERMS: ANGULAR.	AUGER REFUSAL (A.R.) - POINT AT WHICH POWER AUGERS WILL NOT PENETRATE.	CSE COARSE SD SAND
COMPOSITION, ANGULARITY STRUCTURE, PLASTICITY, ETC. EXAMPLE: VERY STIFF, GRAV SUTY CLAY, MOST WITH INTERBEDGED FINE SAND	SUBANGULAR, SUBROUNDED, OR ROUNDED.	BEDDED - SOIL OR ROCK LYING IN A POSITION ESSENTIALLY PARALLEL.	FOT
NERS, HGHU PLASTIC, A-7-6.		BEDROCK - ROCK OF RELATIVELY GREAT THICKNESS AND EXTENT IN ITS ORIGINAL LOCATION.	E - FINE
SOIL LEGEND AND AASHTO CLASSIFICATION	MINERALOGICAL COMPOSITION	CALCAREOUS (CALC.) - SOILS WHICH CONTAIN APPRECIABLE AMOUNTS OF CALCIUM CARBONATE.	FOSS FOSSILIFEROUS
ENERAL GRANULAR MATERIALS SILT-CLAY MATERIALS ORGANIC MATERIALS	MINERAL NAMES SUCH AS QUARTZ, FELDSPAR, MICA, TALC, KAQLIN, ETC. ARE USED IN DESCRIPTIONS WHENEVER THEY ARE CONSIDERED OF SIGNIFICANCE.	COHESIVE SOIL - A SOIL THAT WHEN UNCONFINED HAS CONSIDERABLE DRY STRENGTH AND	SLI SLIGHTLY
CLASS. (≤ 35% PASSING •200) (> 35% PASSING •200)		SIGNIFICANT COHESION WHEN SUBMERGED.	FRAC FRACTURED GS - SPECIFIC GRAVITY
ROUP A-1 A-3 A-2 A-4 A-5 A-6 A-7 A-1, A-2 A-4, A-5	COMPRESSIBILITY SLIGHTLY COMPRESSIBLE LIQUID LIMIT LESS THAN 30	COLLUVIUM - ROCK FRAGMENTS MIXED WITH SOIL DEPOSITED BY GRAVITY ON SLOPE OR AT	GR GRAVEL QU - UNCONFINED COMPRESSIVE STRENGTH
LASS. A-1-AA-1-B A-2-4A-2-5A-2-6A-2-7	MODERATELY COMPRESSIBLE LIQUID LIMIT 31-50	BOTTOM OF SLOPE.	LL - LIQUID LIMIT 7 - UNIT WEIGHT (WET UNIT WEIGHT)
YMBOL 000000000000000000000000000000000000	HIGHLY COMPRESSIBLE LIQUID LIMIT GREATER THAN 50	CORE RECOVERY (% REC.) - TOTAL LENGTH OF ALL ROCK DIVIDED BY TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE.	MED MEDIUM M - MOISTHEE CONTENT 7d - DRY UNIT WEIGHT
PASSING CITY	ROCK DESCRIPTION	COQUINA - A ROCK TYPE COMPOSED ESSENTIALLY OF MARINE SHELLS CEMENTED BY CALCIUM CARBONATE.	H HOZSTOIL CONTENT
10 50 MX GRANULAR SILT MUCK	IN THE BROADEST MEANING, HARD ROCK IS CONSIDERED THAT MATERIAL WHICH CANNOT BE	DIKE - IGNEOUS ROCK INTRUSION WHICH IS NARROW COMPARED WITH ITS OTHER DIMENSIONS.	MOT MOTTLED YSAT - SATURATED UNIT WEIGHT
40 30 MX DU MX DI MN	SAMPLED BY CONVENTIONAL SOIL SAMPLING TOOLS OR TECHNIQUES. THE BOUNDARY BETWEEN	DIP - THE ANGLE BETWEEN A BEDDING PLANE, JOINT PLANE OR FAULT PLANE AND THE	OM - OPTIMUM MOISTURE 0 ~ VOID RATIO
200 15 MX 25 MX 10 MX 35 MX 35 MX 35 MX 36	SOIL AND ROCK IS ARBITRARY. TRANSITION BETWEEN SOIL AND ROCK IS OFTEN REPRESENTED	HORIZONTAL. MEASURED PERPENDICULAR TO THE STRIKE.	ORG ORGANIC V VERY
ID LIMIT 40 MX 41 MN 40 MX 41 MN 40 MX 41 MN 40 MX 41 MN SOILS WITH	BY A ZONE OF "WEATHERED ROCK", FOR THE PURPOSE OF THIS INVESTIGATION, THESE	DUMPS - UNCOVERED DEPOSITS OF WASTE MATERIAL SUCH AS WOOD, MASONRY DEBRIS OR GARBAGE.	
TIC INDEX 6 MX N.P. 10 MX 10 MX 11 MN 11 MN 10 MX 11 MN 11 MN LITTLE OR HIGHLY	MATERIALS ARE DIVIDED AS FOLLOWS:	FAULT - A BREAK IN THE CONTINUITY OF A BODY OF ROCK, ATTENDED BY A MOVEMENT ON	
UP INDEX 0 0 0 4 MX 8 MX 12 MX 16 MX NO MX MODERATE ORGANIC	SOFT MATERIAL THAT CAN BE PENETRATED WITH SOME	EITHER OR BOTH SIDES OF THE BREAK.	CAUTION NOTICE :
AMOUNTS OF SOILS AND TYPES STONE FRACE. STUTY OR CLOYEY STUTY OR GROWER AMOUNTS OF SOILS	WEATHERED WEATHERED DIFFICULTY USING POWER AUGEST AND YIELDS	FINES - PORTIONS OF A SOIL FINER THAN NO. 200 U.S. STANDARD SIEVE.	WICHOIT INVITUDE :
MAJOR GRAVEL AND CAME AND CAME AND CAME SAIL SAIL SAIL MATTER	ROCK ROCK SPT VALUES > 100 BLOWS BUT < SPT REFUSAL (SWR) HARD MATERIAL THAT CAN BE PENETRATED WITH GREAT	FISSILITY OR FISSILE - A PROPERTY OF SPLITTING EASILY ALONG CLOSELY SPACED PARALLEL	THE SUBSURFACE INFORMATION AND THE SUBSURFACE INVESTIGATION ON WHICH IT IS BASED WAS MA
TERIALS SAND SAND SAND SAND SAND SAND SAND SAN	(HWR) WEATHERED DIEETCH TY HEING POWER AND VIEING		FOR THE PURPOSE OF STUDY, PLANNING AND DESIGN, AND NOT FOR CONSTRUCTION OR PAY PURPOS
N. RATING AS A EXCELLENT TO GOOD FAIR TO POOR FAIR TO POOR UNSUITABLE	ROCK SPT REFUSAL."	FLOAT - ROCK FRAGMENTS ON SURFACE NEAR THEIR ORIGINAL POSITION AND DISLODGED FROM PARENT MATERIAL.	SOME DATA OBTAINED MAY BE OMITTED FROM THIS RELEASE.
AS A EXCELLENT TO GOOD FAIR TO POOR POOR UNSUITABLE		FLOODPLAIN - LAND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM.	ADDITIONAL INFORMATION MAY BE AVAILABLE, INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:
P.I. 0F A-7-5 ≤ L.L 30 : P.I. 0F A-7-6 > L.L 30	TOOK : 1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1	FORMATION - A MAPPABLE UNIT THAT CAN BE RECOGNIZED AND TRACED IN THE FIELD.	FIFT D. DODING 1 000
CONSISTENCY OR DENSENESS	(HR) (HR) (HR) (HR) (HR) (HR) (HR) (HR)	1	FIELD BORING LOGS ROCK CORES
COMPACTNESS OR RANGE OF STANDARD RANGE OF UNCONFINED	*SPT REFUSAL ≤2.5cm OF PENETRATION PER 50 BLOWS.	FRACTURE - A CRACK LARGE ENOUGH TO BE VISIBLE TO THE UNAIDED EYE.	SOIL & ROCK TEST DATA
RIMARY SOIL TYPE COMPLETENCY PENETRATION RESISTENCE COMPRESSIVE STRENGTH	""AN INFERRED ROCK LINE INDICATES THE LEVEL AT WHICH AUGERS COULD NO LONGER	FRIABLE - EASY TO BREAK OR CRUMBLE.	SUBSURFACE REPORT
(RFIA2) (KV/W-)	PENETRATE. THE HARD ROCK SYMBOL IS SHOWN WHEN ROCK IS CORED AND ONLY TO THAT DEPTH CORED. A DESCRIPTION OF ROCK IS GIVEN INCLUDING:	GRANULAR MATERIAL - SOIL THAT WHEN UNCONFINED HAS LITTLE OR NO DRY STRENGTH AND HAS	THIS INFORMATION MAY BE VIEWED BY APPOINTMENT BY CONTACTING THE N. C. DEPARTMENT OF
VERY LOOSE <4		LITTLE OR NO COHESION WHEN SUBMERGED.	TRANSPORTATION, GEOTECHNICAL UNIT & (919) 250-4088, NEITHER THE SUBSURFACE PLANS AND RE
GENERALLY LOOSE 4 TO 10 GRANULAR MEDIUM DENSE 10 TO 30 N/A	CORE RECOVERY (REC.) - TOTAL LENGTH OF ROCK RECOVERED IN THE CORE BARREL DIVIDED BY THE TOTAL LENGTH OF THE CORE RUN TIMES 100%.	GROUNDWATER (G.W.) - WATER THAT IS FREE TO MOVE THROUGH SOIL MASS UNDER THE INFLUENCE	NOR THE FIELD BORING LOGS, ROCK CORES, OR SOIL TEST DATA IS PART OF THE CONTRACT.
GRANULAR MEDIUM DENSE 10 TO 30 N/A MATERIAL DENSE 30 TO 50	· · · · · · · · · · · · · · · · · · ·	OF GRAVITY.	
VERY DENSE >50	ROCK QUALITY DESIGNATION (RQD) - TOTAL LENGTH OF SOUND ROCK SEGMENTS RECOVERED	GROUNDWATER LEVEL - LEVEL OF WATER WITH RESPECT TO EXISTING GROUND SURFACE.	GENERAL SOIL AND ROCK STRATA DESCRIPTIONS AND INDICATED BOUNDARIES ARE BASED ON A GEOTECHNICAL INTERPRETATION OF ALL AVAILABLE SUBSURFACE DATA AND MAY NOT NECESSARIL.
VERY SOFT <2 <25	THAT ARE LONGER THAN OR EQUAL TO 0.1m DIVIDED BY THE TOTAL LENGTH OF THE CORE RUN TIMES 100%.	HARDPAN - A GENERAL TERM USED TO DESCRIBE A HARD CEMENTED SOIL LAYER WHICH DOES NOT SOFTEN WHEN WET.	REFLECT THE ACTUAL SUBSURFACE CONDITIONS BETWEEN BORINGS OR BETWEEN SAMPLED STRATA
SOFT 2 TO 4 25 TO 50	GROUND WATER	INDURATED - EARTH MATERIAL HARDENED BY HEAT, PRESSURE OR CEMENTATION.	WITHIN THE BOREHOLE, THE LABORATORY SAMPLE DATA AND THE IN SITU (IN-PLACE) TEST DATA CA
STIT-CLAY MEDIUM STIFF 4 10 6 50 TO 100	✓ WATER LEVEL IN BORE HOLE IMMEDIATELY AFTER DRILLING.	INTERBEDDED - ALTERNATING LENSES OR LAYERS OF SOIL AND/OR ROCK MATERIALS.	RELIED ON ONLY TO THE DEGREE OF RELIABILITY INHERENT IN THE STANDARD TEST METHOD. THE OBSERVED WATER LEVELS OR SOIL MOISTURE CONDITIONS INDICATED IN THE SUBSURFACE
STIFF 8 TO 15 100 TO 200		JOINT - FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS OCCURRED.	INVESTIGATIONS ARE AS RECORDED AT THE TIME OF THE INVESTIGATION, THESE WATER LEVELS OR
HARD >30 >400	STATIC WATER LEVEL AFTER 24 HOURS,	LAMINATED - VERY THIN ALTERNATING LAYERS LESS THAN ICM.	MOISTURE CONDITIONS MAY VARY CONSIDERABLY WITH TIME ACCORDING TO CLIMATIC CONDITIONS INC
TEXTURE OR GRAIN SIZE	PERCHED WATER, SATURATED ZONE OR WATER BEARING STRATA		TEMPERATURES, PRECIPITATION AND WIND, AS WELL AS OTHER NON-CLIMATIC FACTORS.
TEXTORE ON OTHER STATE		LAYER - SUBJECT MATERIAL GREATER THAN IGM IN THICKNESS.	THE BIDDER OR CONTRACTOR IS CAUTIONED THAT DETAILS SHOWN ON THE SUBSURFACE PLANS
.S. STD. SIEVE SIZE 4 10 40 60 200 270	SPRING OR SEEPAGE	LEDGE - A SHELF-LIKE RIDGE OR PROJECTION OF ROCK WHOSE THICKNESS IS SMALL COMPARED TO ITS LATERAL EXTENT.	ARE PRELIMINARY ONLY AND IN MANY CASES THE FINAL DESIGN DETAILS ARE DIFFERENT. FOR BIDI
PENING (MM) 4.76 2.0 0.42 0.25 0.075 0.053	MISCELLANEOUS SYMBOLS AND ABBREVIATIONS	1	AND CONSTRUCTION PURPOSES, REFER TO THE CONSTRUCTION PLANS AND DOCUMENTS FOR FINAL
COARSE FINE	- SPT CAMOUT	LENS - A BODY OF SOIL OR ROCK THAT THINS OUT IN ONE OR MORE DIRECTIONS.	INFORMATION ON THIS PROJECT. THE DEPARTMENT DOES NOT WARRANT OR GUARANTEE THE SUFF OR ACCURACY OF THE INVESTIGATION MADE, NOR THE INTERPRETATIONS MADE OR OPINIONS OF TH
BOULDER COBBLE GRAVEL SAND SAND SILT CLAY	PT TEST BORING DECICIONATIONS	MARL - A NON-INDURATED, CALCAREOUS DEPOSIT OF CLAYS, SILTS AND SANDS, OFTEN CONTAINING SHELLS.	DEPARTMENT AS TO THE TYPE OF MATERIALS AND CONDITIONS TO BE ENCOUNTERED. THE BIDDER
	- 11		CONTRACTOR IS CAUTIONED TO MAKE SUCH INDEPENDENT SUBSURFACE INVESTIGATIONS AS HE DEE
GRAIN MM 305 75 2.0 0.25 0.05 0.005 GIZE IN, 12' 3'	SOIL SYMBOL AUGER BORING S- BULK SAMPLE	MICACEOUS SOIL (MIC.) - A SOIL OR ROCK TYPE CONTAINING AN APPRECIABLE AMOUNT OF MICA.	NECESSARY TO SATISFY HIMSELF AS TO CONDITIONS TO BE ENCOUNTERED ON THIS PROJECT, THE CONTRACTOR SHALL HAVE NO CLAIM FOR ADDITIONAL COMPENSATION OR FOR AN EXTENSION OF TO
	SS- SPLIT SPOON SAMPLE SAMPLE	MUCK (MK.) - A HIGHLY ORGANIC SOIL OF VERY SOFT CONSISTENCY, GENERALLY FOUND ON	ANY REASON RESULTING FROM THE ACTUAL CONDITIONS ENCOUNTERED AT THE SITE DIFFERING FR
SOIL MOISTURE - CORRELATION OF TERMS	- N POADWAY EMBANKMENTS - CORE BORING	TIDAL FLATS, LAKE OR STREAM FLOODPLAINS.	THOSE INDICATED IN THE SUBSURFACE INFORMATION.
SOIL MOISTURE SCALE FIELD MOISTURE GUIDE FOR FIELD MOISTURE DESCRIPTION GUIDE FOR FIELD MOISTURE DESCRIPTION	A 21- SHETBI IORE	PEAT (PT) - A FIBROUS MASS OF ORGANIC MATTER IN VARIOUS STAGES OF DECOMPOSITION.	NAME AND DESCRIPTION OF THE PARTY OF THE PAR
CONTRACTOR DEGREE 12019	MONITORING WELL RS- ROCK SAMPLE RS- ROCK SAMPLE	PERCHED WATER - WATER MAINTAINED ABOVE THE NORMAL GROUND WATER LEVEL BY THE PRESENCE OF AN INTERVENING IMPERVIOUS STRATUM.	NOTE - THE INFORMATION CONTAINED HEREIN IS NOT IMPLIED OR GUARANTEED BY THE N.C. DEPAR OF TRANSPORTATION AS BEING ACCURATE NOR IS IT CONSIDERED TO BE PART OF THE PLANS,
- SATURATED - USUALLY LIQUID: VERY WET, USUALLY	ALLUVIAL/RESIDUAL BOUNDARIES PIEZOMETER	RESIDUAL SOIL - SOIL FORMED IN PLACE BY THE WEATHERING OF ROCK.	SPECIFICATIONS, OR CONTRACT FOR THE PROJECT.
(SAT.) FROM BELOW THE GROUND WATER TABLE	△ INSTALLATION	ROCK - SEE LEGEND	
ACTIC	7.50	ROCK QUALITY DESIGNATION (R.Q.D.) - A MEASURE OF ROCK QUALITY DESCRIBED BY: TOTAL	NOTE - BY HAVING REQUESTED THIS INFORMATION THE CONTRACTOR SPECIFICALLY WAIVES ANY CLA FOR INCREASED COMPENSATION OR EXTENSION OF TIME BASED ON DIFFERENCES BETWEEN THE
RANGE < - WET - (W) SEMISULIDE REQUIRES DRYING TO	SLOPE INDICATOR • - SOUNDING ROD INSTALLATION	LENGTH OF ROCK SEGMENTS EQUAL TO OR GREATER THAN O, METER DIVIDED BY THE TOTAL	CONDITIONS INDICATED HEREIN AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.
(PI) PLASTIC LIMIT		LENGTH OF CORE RUN EXPRESSED AS A PERCENTAGE.	
	APPARENT DIP (NORMAL TO) SPT N-COUNT	SANITARY LANDFILLS - COMPACTED AND/OR COVERED LAYERS OF SOIL AND WASTE PRODUCTS.	
OM OPTIMUM MOISTURE - MOIST - (M) SOLID: AT OR NEAR OPTIMUM MOISTURE		SAPROLITE (SAP.) - RESIDUAL SOIL WHICH RETAINS THE RELIC STRUCTURE OR FABRIC OF	NOTES: BENCHMARK = BL-4 AT -L- STA. 18+02.841, 23.888 RT
SLSHRINKAGE LIMIT	EQUIPMENT USED ON SUBJECT PROJECT	THE PARENT ROCK.	ELEVATION = 56.268 METERS
REQUIRES ADDITIONAL WATER TO	DRILL UNITS: AUGER TOOLS: HAMMER TYPE:	SLICKENSIDE - POLISHED AND STRIATED SURFACE THAT RESULTS FROM FRICTION ALONG A	
- DRY - (D) ATTAIN OPTIMUM MOISTURE	MOBILE B 6° (152 mm) CONTINUOUS FLIGHT X AUTOMATIC MANUAL	FAULT OR SLIP PLAIN. SILL - AN IGNEOUS SHEET OF INTRUSIVE ROCK WHOSE THICKNESS IS SLIGHT COMPARED TO	
PLASTICITY	7 🖰 🗀 🗀	ITS LATERAL EXTENT.	
	BK-51 8° (203 mm) HOLLOW AUGERS CORE BORING TOOLS:	SOME - PRESENCE OF 5% TO 30% OF SUBJECT MATERIAL.	
PLASTICITY INDEX DRY STRENGTH		STANDARD PENETRATION TEST (PENETRATION RESISTANCE) (SPT) - NUMBER OF BLOWS (N) OF A 63,5 kg	
PLASTICITY INDEX DRY STRENGTH	HARD FACED FINGER BITS -AX -BX -NX		
PLASTICITY INDEX DRY STRENGTH DNPLASTIC 0-5 VERY LOW	CME-45 HARD FACED FINGER BITS -AX -BX -NX	HAMMER FALLING 0.76 METERS REQUIRED TO PRODUCE A PENETRATION OF 30 cm INTO SOIL WITH A	
PLASTICITY INDEX DRY STRENGTH INPLASTIC 0-5 VERY LOW IN PLASTICITY 6-15 SLIGHT		5 cm OUTSIDE DIAMETER SPLIT SPOON SAMPLER. SPT REFUSAL IS PENETRATION RESISTANCE OF LESS	
PLASTICITY INDEX DRY STRENGTH ONPLASTIC 0-5 VERY LOW OW PLASTICITY 6-15 SLIGHT ED. PLASTICITY 16-25 MEDIUM	X CME-550 TUNG CARBIDE INSERTS HAND TOOLS: Post Hole Digger	5 cm OUTSIDE DIAMETER SPLIT SPOON SAMPLER. SPT REFUSAL IS PENETRATION RESISTANCE OF LESS THAN 2.5 cm WITH 50 BLOWS.	
PLASTICITY INDEX DRY STRENGTH ONPLASTIC 0-5 VERY LOW OW PLASTICITY 6-15 SLIGHT ED. PLASTICITY 16-25 MEDIUM IGH PLASTICITY 26 OR MORE HIGH	CME -550	5 cm outside diameter split spoon sampler. SPT REFUSAL IS PENETRATION RESISTANCE OF LESS THAN 2.5 cm with 50 BLOWS. STRIKE - THE DIRECTION OR BEARING OF A HORIZONTAL LINE IN THE PLANE OF AN	
PLASTICITY INDEX DRY STRENGTH IONPLASTIC 0-5 VERY LOW .OW PLASTICITY 6-15 SLIGHT IED. PLASTICITY 16-25 MEDIUM IIGH PLASTICITY 26 OR MORE HIGH COLOR	TUNG CARBIDE INSERTS HAND TOOLS: POST HOLE DIGGER CLAY BITS HAND AUGER	5 cm OUTSIDE DIAMETER SPUT SPOON SAMPLER. SPT REFUSAL IS PENETRATION RESISTANCE OF LESS THAN 2.5 cm WITH 50 BLOWS. STRIKE - THE DIRECTION OR BEARING OF A HORIZONTAL LINE IN THE PLANE OF AN INCLINED STRATUM, JOINT, FAULT OR OTHER STRUCTURAL PLANE.	
PLASTICITY INDEX DRY STRENGTH NONPLASTIC 8-5 VERY LOW LOW PLASTICITY 6-15 SLIGHT MED. PLASTICITY 16-25 MEDIUM HIGH PLASTICITY 26 OR MORE HIGH COLOR DESCRIPTIONS MAY INCLUDE COLOR OR COLOR COMBINATIONS (TAN, RED, YEL-BRN, BLUE-GRAY)	CHE -550	5 cm OUTSIDE DIAMETER SPUT SPOON SAMPLER. SPT REFUSAL IS PENETRATION RESISTANCE OF LESS THAN 2.5 cm WITH 50 BLOWS. STRIKE - THE DIRECTION OR BEARING OF A HORIZONTAL LINE IN THE PLANE OF AN INCLINED STRATUM, JOINT, FAULT OR OTHER STRUCTURAL PLANE. SUBGRADE - THE SOIL PREPARED TO SUPPORT A STRUCTURE OR A PAVEMENT SYSTEM.	
PLASTICITY INDEX DRY STRENGTH ONPLASTIC 0-5 VERY LOW OW PLASTICITY 6-15 SLIGHT ED. PLASTICITY 16-25 MEDIUM IGH PLASTICITY 26 OR MORE HIGH COLOR	CHE -550	5 cm OUTSIDE DIAMETER SPUT SPOON SAMPLER. SPT REFUSAL IS PENETRATION RESISTANCE OF LESS THAN 2.5 cm WITH 50 BLOWS. STRIKE - THE DIRECTION OR BEARING OF A HORIZONTAL LINE IN THE PLANE OF AN INCLINED STRATUM, JOINT, FAULT OR OTHER STRUCTURAL PLANE.	REVISED NOVEMBER