## STATE OF NORTH CAROLINA

**DEPARTMENT OF TRANSPORTATION** DIVISION OF HIGHWAYS GEOTECHNICAL ENGINEERING UNIT

# **STRUCTURE** SUBSURFACE INVESTIGATION

PROJ. REFER	ENCE NO. U-5104	41902.1.1	F.A. PROJ.	STP-064B(3)
COUNTY	Transylvania			

PROJECT DESCRIPTION \_ Caldwell Street from (Bus. 64) Rosman Highway (US 64) to Probart Street

RETAINING WALL I

## **INVENTORY**

**CONTENTS** 

Wall 1

TITLE

LEGEND

PLAN VIEW **PROFILE** 

**STATION** 

-L- 10+58.97 - 13+38.41

<u>LINE</u>

1

2

3

4

PQ Lockamy DRAWN BY:

NOTE - THE INFORMATION CONTAINED HEREIN IS NOT IMPLIED OR GUARANTEED BY THE N.C. DEPARTMENT OF TRANSPORTATION AS BEING ACCURATE NOR IT IS CONSIDERED TO BE PART OF THE PLANS, SPECIFICATIONS, OR CONTRACT FOR THE PROJECT.

NOTE - BY HAVING REQUESTED THIS INFORMATION THE CONTRACTOR SPECIFICALLY WAIVES ANY CLAIMS FOR INCREASED COMPENSATION OR EXTENSION OF TIME BASED ON DIFFERENCES BETWEEN THE CONDITIONS INDICATED HEREIN AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

STATE	STATE P	SHEET NO.	TOTAL SHEETS				
N.C.	τ	J <b>-510</b> ∢	1	4			
STATE	PROJ. NO.	DESCRIPTION					
- 41	092.1.1	STP-064B(3)	P.E.				

#### CAUTION NOTICE

THE SUBSURFACE INFORMATION AND THE SUBSURFACE INVESTIGATION ON WHICH IT IS BASED WERE MADE FOR THE PURPOSE OF STUDY, PLANNING, AND DESIGN, AND NOT FOR CONSTRUCTION OR PAY PURPOSES. THE VARIOUS FIELD BORING LOGS, ROCK CORES, AND SOIL TEST DATA AVAILABLE MAY BE REVIEWED OR INSPECTED IN RALEIGH BY CONTACTING THE N.C. DEPATIVENT OF TRANSPORTATION, GEOTECHNICAL ENGINEERING UNIT AT (99) 250-4088, NEITHER THE SUBSURFACE PLANS AND REPORTS. NOR THE FIELD BORING LOGS, ROCK CORES, OR SOIL TEST DATA ARE PART OF THE CONTRACT.

GENERAL SOIL AND ROCK STRATA DESCRIPTIONS AND INDICATED BOUNDARIES ARE BASED ON A GEOTECHNICAL INTERPRETATION OF ALL AVAILABLE SUBSURFACE DATA AND MAY NOT NECESSARILY REFLECT THE ACTUAL SUBSURFACE CONDITIONS BETWEEN BORNOS OR BETWEEN SAMPLED STRATA WITHIN THE BOREHOLE, THE LABORATORY SAMPLE DATA AND THE IN SITU UNE-PLACET INST DATA CAN BE RELIED ON ONLY TO THE DEGREE OF RELIABILITY INHERENT IN THE STANDARD TEST DATA CAN BE 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 INVESTIGATIONS ARE AS RECORDED AT THE TIME OF THE INVESTIGATION. THESE WATER LEVELS OR SOIL MOISTURE CONDITIONS MAY VARY CONSIDERABLY WITH TIME ACCORDING TO CLIMATIC CONDITIONS INCLUDING THEORES PERCIPUTATION AND WIND AS WEIL AS OTHER DINCIDENS INCLUDING TEMPERATURES, PRECIPITATION, AND WIND, AS WELL AS OTHER NON-CLIMATIC FACTORS.

THE BIDDER OR CONTRACTOR IS CAUTIONED THAT DETAILS SHOWN ON THE SUBSURFACE PLANS ARE PRELIMINARY ONLY AND IN MAINY CASES THE FINAL DESIGN DETAILS ARE DIFFERENT, FOR BIDDING AND CONSTRUCTION PURPOSES, REFER TO THE CONSTRUCTION PLANS AND DOCUMENTS FOR FINAL DESIGN INFORMATION ON THIS PROJECT. THE DEPARTMENT DOES NOT MARRANT OR GUARANTEE THE SUFFICIENCY OR ACCURACY OF THE INVESTIGATION MADE, NOR THE INTERPRETATIONS MADE, OR OPINION OF THE DEPARTMENT AS TO THE TYPE OF MATERIALS AND CONDITIONS TO BE ENCOUNTERED. THE BIDDER OR CONTRACTOR IS CAUTIONED TO MAKE SUCH INDEPENDENT SUBSURFACE INVESTIGATIONS AS HE DEEMS NECESSARY TO SATISY HINKELF AS TO CONDITIONS TO BE ENCOUNTERED ON THIS PROJECT. THE CONTRACTOR SHALL HAVE NO CLAM FOR ADDITIONAL COMPENSATION OR FOR AN EXTENSION OF TIME FOR ANY REASON RESULTING FROM THE ACTUAL CONDITIONS.

PERSONNEL

DE Elliott

DO CHEEK

C COFFEY

INVESTIGATED BY	PQ Lockamy
CHECKED BY	
SUBMITTED BY	JC KUHNE
DATE	07–22–2014



#### NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

GEOTECHNICAL ENGINEERING UNIT

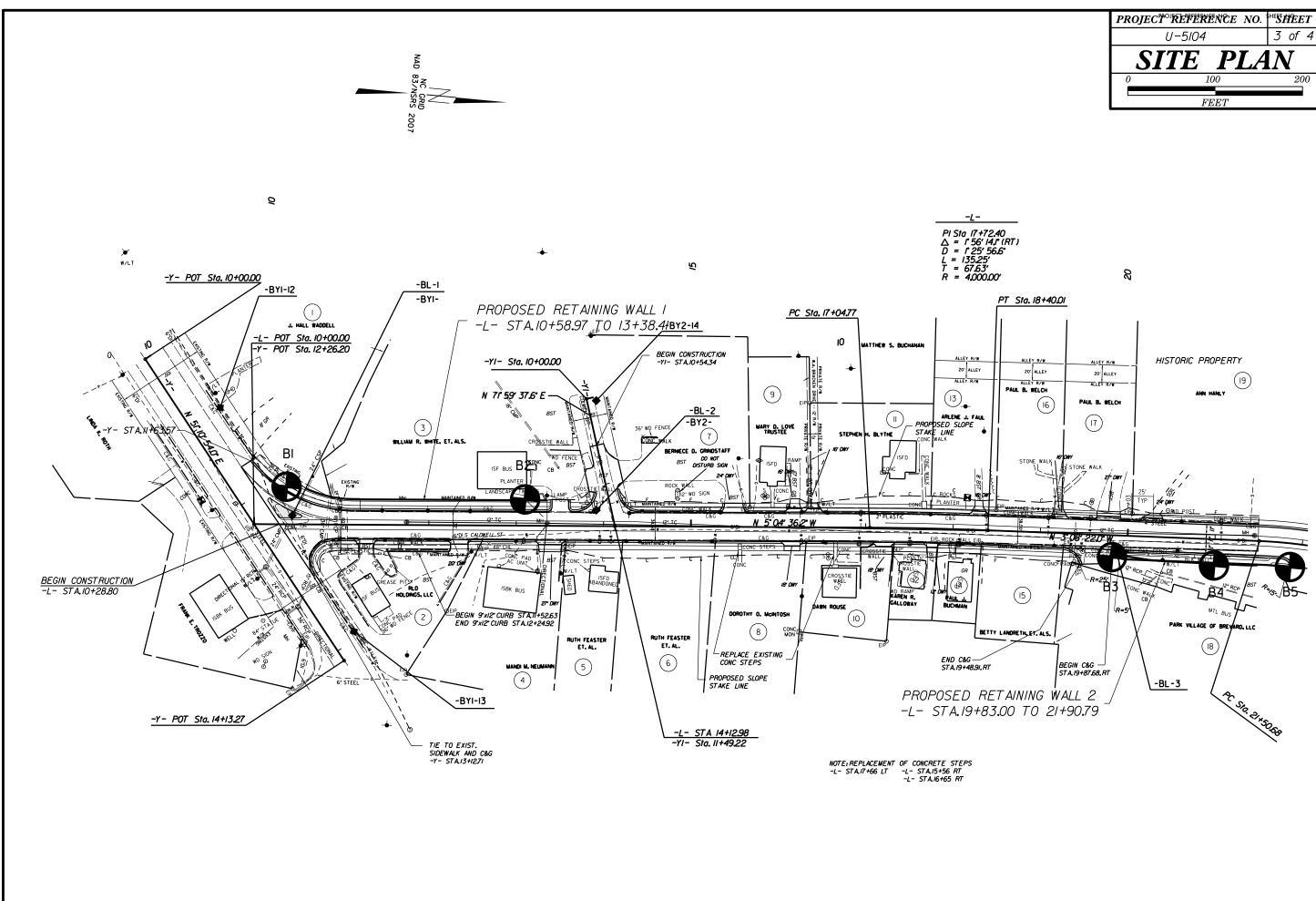
### SUBSURFACE INVESTIGATION

SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

	5011 0				1					
THAT CAN BE PENETRAT	DUIL L O BE THE UNCONSOLIDATED, S TED WITH A CONTINUOUS FLIC ACCORDING TO STANDARD PEN SED ON THE AASHTO SYSTEM.	GHT POWER AUGER, AND YIE ETRATION TEST (AASHTO T	LD LESS THAN 206, ASTM D-1586). SOIL	6	POORLY GRADED)	GRADATION SOOD REPRESENTATION OF PARTICLE SIZES DIL PARTICLES ARE ALL APPROXIMATELY TH XTURE OF UNIFORM PARTICLES OF TWO OR		ROCK LINE INDICA SPT REFUSAL IS F IN NON-COASTAL F	N-COASTAL PLAIN MATERIAL THA ITES THE LEVEL AT WHICH NON- PENETRATION BY A SPLIT SPOOP PLAIN MATERIAL, THE TRANSITI	DESCRIPTION AT IF TESTED, WOULD YIELD SPT REFUSAL. AI -COASTAL PLAIN MATERIAL WOULD YIELD SPT N SAMPLER EQUAL TO OR LESS THAN 0.1 FOO ION BETWEEN SOIL AND ROCK IS OFTEN REPR
CONSISTENCY, COLOR, TE: AS MINERALOGICAL COMP	EXTURE, MOISTURE, AASHTO STSTEM. EXTURE, MOISTURE, AASHTO CL IPOSITION, ANGULARITY, STRUC ERY STIFF. GRAY, SILTY CLAY, MOIST WITH IN	ASSIFICATION, AND OTHER I TURE, PLASTICITY, ETC. EXA	PERTINENT FACTORS SUCH		THE ANGULARITY OR ROUNDNES	ANGULARITY OF GRAINS SS OF SOIL GRAINS IS DESIGNATED BY THE <u>ROUNDED</u> .	TERMS: ANGULAR,	OF WEATHERED RO ROCK MATERIALS WEATHERED ROCK (WR)	NON-COASTAL F	PLAIN MATERIAL THAT WOULD YIELD SPT N
SO	DIL LEGEND AND 4	AASHTO CLASSIF	ICATION			MINERALOGICAL COMPOSITIO	N		BLOWS PER FO	SE GRAIN IGNEOUS AND METAMORPHIC ROCK T
	ANULAR MATERIALS 35% PASSING *200)	SILT-CLAY MATERIALS (> 35% PASSING #200		IALS	MINERAL NAMES SUCH AS QUAR WHENEVER THEY ARE CONSIDER	TZ, FELDSPAR, MICA, TALC, KAOLIN, ETC. ARE ED OF SIGNIFICANCE.	USED IN DESCRIPTIONS	CRYSTALLINE ROCK (CR)	GNEISS, GABBRO	SPT REFUSAL IF TESTED. ROCK TYPE INCLUD D, SCHIST, ETC.
	A-3 A-2	A-4 A-5 A-6 A-				COMPRESSIBILITY		NON-CRYSTALLINE ROCK (NCR)	SEDIMENTARY R	SE GRAIN METAMORPHIC AND NON-COASTAL PL ROCK THAT WOULD YEILD SPT REFUSAL IF TE
CLASS.         A-1-a         A-1-b           SYMBOL         000000000000000000000000000000000000	b A-2-4 A-2-5 A-2-6 A-		A-3 A-6, A-7		SLIGHTLY COMPRESS	SSIBLE LIQUID LIMIT	LESS THAN 31 EQUAL TO 31-50	COASTAL PLAIN	COASTAL PLAIN	LITE, SLATE, SANDSTONE, ETC. N SEDIMENTS CEMENTED INTO ROCK, BUT MAY
7 PASSING					HIGHLY COMPRESSIB		GREATER THAN 50	SEDIMENTARY ROCK	SHELL BEDS, ET	
# 10 50 MX			GRANULAR CLAY	MUCK,	ORGANIC MATERIAL	GRANULAR SILT - CLAY	OTHER MATERIAL	1	WE	ATHERING
# 40 30 MX 50 MX # 200 15 MX 25 MX	X 10 MX 35 MX 35 MX 35 MX 35 MX 35	6 MX 36 MN 36 MN 36 MN 36	MN SOILS SOILS	PEAT	TRACE OF ORGANIC MATTER		ACE 1 - 10%		FRESH, CRYSTALS BRIGHT, FEW . R IF CRYSTALLINE.	JOINTS MAY SHOW SLIGHT STAINING. ROCK RI
LIQUID LIMIT	40 MX 41 MN 40 MX 41	MN 40 MX 41 MN 40 MX 41	MN SOILS WITH		LITTLE ORGANIC MATTER MODERATELY ORGANIC	3 - 5% 5 - 12% LI 5 - 10% 12 - 20% S0	TLE 10 - 20% ME 20 - 35%	VERY SLIGHT ROCK	GENERALLY FRESH, JOINTS STAI	INED.SOME JOINTS MAY SHOW THIN CLAY COA
PLASTIC INDEX 6 MX	NP 10 MX 10 MX 11 MN 11		LITTLE OR	HIGHLY	HIGHLY ORGANIC	>10% >20% HI	GHLY 35% AND ABOVE		ALS ON A BROKEN SPECIMEN FA CRYSTALLINE NATURE.	ACE SHINE BRIGHTLY. ROCK RINGS UNDER HAN
GROUP INDEX Ø	0 0 4 MX	( 8 MX 12 MX 16 MX No	AMOUNTS OF	ORGANIC SOILS		GROUND WATER		SLIGHT ROCK	GENERALLY FRESH, JOINTS STAI	INED AND DISCOLORATION EXTENDS INTO ROC
USUAL TYPES STONE FRAGS. OF MAJOR GRAVEL, AND	FINE SILTY OR CLAYEN		Y ORGANIC MATTER			VEL IN BORE HOLE IMMEDIATELY AFTER	DRILLING			LAY, IN GRANITOID ROCKS SOME OCCASIONAL D. CRYSTALLINE ROCKS RING UNDER HAMMER
MATERIALS SAND GEN. RATING						ATER LEVEL AFTER 24 HOURS				W DISCOLORATION AND WEATHERING EFFECTS.
AS A EXC	CELLENT TO GOOD	FAIR TO POOR	FAIR TO POOR	UNSUITABLE		WATER, SATURATED ZONE, OR WATER BEAR	ING STRATA	DULL	SOUND UNDER HAMMER BLOWS A	ARE DULL AND DISCOLORED, SOME SHOW CLAY. AND SHOWS SIGNIFICANT LOSS OF STRENGTH
SUBGRADE PI OF A-7-5	SUBGROUP IS $\leq$ LL -	30 ; PI OF A-7-6 SUB	GROUP IS > LL - 30	1		R SEEP			FRESH ROCK.	ED OR STAINED. IN GRANITOID ROCKS.ALL FE
	CONSISTENC	Y OR DENSENES				MISCELLANEOUS SYMBOLS	5	SEVERE AND D	ISCOLORED AND A MAJORITY SH	OW KAOLINIZATION. ROCK SHOWS SEVERE LOS
PRIMARY SOIL TYPE	E COMPACTNESS OR CONSISTENCY	RANGE OF STANDARD PENETRATION RESISTENCE	E COMPRESSIVE STR	ENGTH	L ROADWAY EMBANK		NG TEST BORING		AN BE EXCAVATED WITH A GEOL STED, WOULD YIELD SPT REFUSA	LOGIST'S PICK. ROCK GIVES "CLUNK" SOUND WH NL
GENERALLY GRANULAR	VERY LOOSE LOOSE	(N-VALUE) <4 4 TO 10	(TONS/FT <sup>2</sup> )	)	U WITH SOIL DESCR		SPT N-VALUE	(SEV.) IN STI	RENGTH TO STRONG SOIL. IN GR IT. SOME FRAGMENTS OF STRONG	
MATERIAL (NON-COHESIVE)	MEDIUM DENSE DENSE	10 TO 30 30 TO 50	N/A		ARTIFICIAL FILL		REF- SPT REFUSAL		STED, YIELDS SPT N VALUES > .	<u>100 BPF</u> ED OR STAINED. ROCK FABRIC ELEMENTS ARE
	VERY DENSE	>50 <2	<0.25			MW	LL	(V SEV.) THE M REMAIN	ASS IS EFFECTIVELY REDUCED NING. SAPROLITE IS AN EXAMPLI	TO SOIL STATUS, WITH ONLY FRAGMENTS OF E OF ROCK WEATHERED TO A DEGREE SUCH
GENERALLY SILT-CLAY	SOFT MEDIUM STIFF	2 TO 4 4 TO 8	0.25 TO 0.50 0.5 TO 1.0	2	INFERRED ROCK L	INE A PIEZOMETER INSTALLATION				BRIC REMAIN. IF TESTED, YIELDS SPT N VA
MATERIAL (COHESIVE)	STIFF VERY STIFF HARD	8 TO 15 15 TO 30	1 TO 2 2 TO 4		ALLUVIAL SOIL BO	V INSTALLATION	DR	SCATT		C NOT DISCERNIBLE, OR DISCERNIBLE ONLY IN MAY BE PRESENT AS DIKES OR STRINGERS.
		>30 OR GRAIN SIZE	>4		25/025 DIP & DIP DIRECT ROCK STRUCTURES		ETER TEST		ROCK	K HARDNESS
U.S. STD. SIEVE SIZE	4 10		00 270		1	<ul> <li>SOUNDING ROD</li> </ul>			OT BE SCRATCHED BY KNIFE OR RAL HARD BLOWS OF THE GEOL(	R SHARP PICK. BREAKING OF HAND SPECIMENS OGIST'S PICK.
OPENING (MM)	4.76 2.0	00 0.42 0.25 0.0	075 0.053			ABBREVIATIONS			BE SCRATCHED BY KNIFE OR PIG ETACH HAND SPECIMEN.	CK ONLY WITH DIFFICULTY. HARD HAMMER BL
(BLDR.) (	COBBLE GRAVEL (COB.) (GR.) 75 2.6	SAND SA (CSE. SD.) (F	AND SILT SD.) (SL.)	CLAY (CL.)	AR - AUGER REFUSAL BT - BORING TERMINATED CL CLAY	MED MEDIUM MICA MICACEOUS MOD MODERATELY	VST - VANE SHEAR TEST WEA WEATHERED $\widetilde{\gamma}$ - UNIT WEIGHT	MODERATELY CAN HARD EXCA	BE SCRATCHED BY KNIFE OR PI VATED BY HARD BLOW OF A GEO	CK. GOUGES OR GROOVES TO 0.25 INCHES DE OLOGIST'S PICK. HAND SPECIMENS CAN BE DE
GRAIN MM 305 SIZE IN. 12	75 2.0 3	0 0.25	0.05 0.005		CPT - CONE PENETRATION CSE COARSE	TEST NP - NON PLASTIC ORG ORGANIC	$\dot{\gamma}_{\rm d}$ - DRY UNIT WEIGHT		IODERATE BLOWS. BE GROOVED OR GOUGED 0.05 I	NCHES DEEP BY FIRM PRESSURE OF KNIFE O
S	OIL MOISTURE - (	CORRELATION OF	TERMS		DMT - DILATOMETER TEST DPT - DYNAMIC PENETRATIC	PMT - PRESSUREMETER TEST IN TEST SAP SAPROLITIC	SAMPLE ABBREVIATIONS S - BULK		BE EXCAVATED IN SMALL CHIPS T OF A GEOLOGIST'S PICK.	S TO PEICES 1 INCH MAXIMUM SIZE BY HARD
SOIL MOISTURE		MOISTURE GUIDE FO	DR FIELD MOISTURE DES	CRIPTION	e - VOID RATIO F - FINE	SD SAND, SANDY SL SILT, SILTY	SS - SPLIT SPOON ST - SHELBY TUBE	FROM	1 CHIPS TO SEVERAL INCHES IN	Y BY KNIFE OR PICK. CAN BE EXCAVATED IN I SIZE BY MODERATE BLOWS OF A PICK POIN
	(SA		LIQUID;VERY WET.USU		FOSS FOSSILIFEROUS FRAC FRACTURED, FRACTU FRAGS FRAGMENTS	SLI SLIGHTLY RES TCR - TRICONE REFUSAL W - MOISTURE CONTENT	RS - ROCK RT - RECOMPACTED TRIAXIAL CBR - CALIFORNIA BEARING	VERY CAN I		E EXCAVATED READILY WITH POINT OF PICK.
		SEMISO	ID: REQUIRES DRYING TO		HI HIGHLY	V - VERY	RATIO		ERNAIL.	KEN BY FINGER PRESSURE. CAN BE SCRATCHE
(PI)			OPTIMUM MOISTURE		EQU	IPMENT USED ON SUBJECT I	PROJECT	FRACTI	URE SPACING	BEDDING
PLL PLAST	TIC LIMIT				DRILL UNITS:	ADVANCING TOOLS:	HAMMER TYPE:	TERM VERY WIDE	SPACING	VERY THICKLY BEDDED
		ST - (M) SOLID;	AT OR NEAR OPTIMUM M	10ISTURE		CLAY BITS	X AUTOMATIC MANUAL	WIDE	MORE THAN 10 FEET 3 TO 10 FEET	THICKLY BEDDED 1.5 THINLY BEDDED 0.16
	KAGE LIMIT	PEOUIPE	S ADDITIONAL WATER TO			6. CONTINUOUS FLIGHT AUGER	CORE SIZE:	<ul> <li>MODERATELY CLC CLOSE</li> </ul>	DSE 1 TO 3 FEET 0.16 TO 1 FEET	VERY THINLY BEDDED 0.03
	- DRY		OPTIMUM MOISTURE	,	ВК-51	X 6 HOLLOW AUGERS	П-в	VERY CLOSE	LESS THAN 0.16 FEET	THICKLY LAMINATED 0.008 THINLY LAMINATED < 0.
	PL	ASTICITY			- X CME-45C	HARD FACED FINGER BITS				DURATION
		ITY INDEX (PI)	DRY STRENGTH			TUNGCARBIDE INSERTS		FOR SEDIMENTARY RO		NING OF THE MATERIAL BY CEMENTING, HEAT.
NONPLASTIC LOW PLASTICITY		0-5 5-15	VERY LOW SLIGHT		CME-550	CASING W/ ADVANCER		FRIABLE		G WITH FINGER FREES NUMEROUS GRAINS: BLOW BY HAMMER DISINTEGRATES SAMPLE.
MED. PLASTICITY HIGH PLASTICITY	16	-25 S OR MORE	MEDIUM HIGH		PORTABLE HOIST	TRICONE STEEL TEETH	HAND TOOLS: POST HOLE DIGGER	MODERATE		CAN BE SEPARATED FROM SAMPLE WITH STE
						TRICONE TUNGCARB.	HAND AUGER		BREAKS	EASILY WHEN HIT WITH HAMMER.
DESCRIPTIONS MAY T	INCLUDE COLOR OR COLOR			BAY)	1└┘────			INDURATED		ARE DIFFICULT TO SEPARATE WITH STEEL I ULT TO BREAK WITH HAMMER.
	AS LIGHT, DARK, STREAKED						VANE SHEAR TEST	EXTREMELY	Y INDURATED SHARP	HAMMER BLOWS REQUIRED TO BREAK SAMPLE
									SAMPLE	E BREAKS ACROSS GRAINS.

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	TERMS AND DEFINITIONS
INFERRED REFUSAL.	ALLUVIUM (ALLUV.) - SOILS THAT HAVE BEEN TRANSPORTED BY WATER.
PER 60 BLOWS. SENTED BY A ZONE	<u>AQUIFER</u> - A WATER BEARING FORMATION OR STRATA. <u>ARENACEOUS</u> - APPLIED TO ROCKS THAT HAVE BEEN DERIVED FROM SAND OR THAT CONTAIN SAND.
	ARGILLACEOUS - APPLIED TO ALL ROCKS OR SUBSTANCES COMPOSED OF CLAY MINERALS, OR HAVING A NOTABLE PROPORTION OF CLAY IN THEIR COMPOSITION, AS SHALE, SLATE, ETC.
ALUES > 100	ARTESIAN - GROUND WATER THAT IS UNDER SUFFICIENT PRESSURE TO RISE ABOVE THE LEVEL AT WHICH IT IS ENCOUNTERED, BUT WHICH DOES NOT NECESSARILY RISE TO OR ABOVE THE
S GRANITE,	GROUND SURFACE.
NIN STED. ROCK TYPE	<u>CALCAREOUS (CALC.)</u> - SOILS THAT CONTAIN APPRECIABLE AMOUNTS OF CALCIUM CARBONATE. <u>COLLUVIUM</u> - ROCK FRAGMENTS MIXED WITH SOIL DEPOSITED BY GRAVITY ON SLOPE OR AT BOTTOM
NOT YIELD	OF SLOPE. CORE RECOVERY (REC.) - TOTAL LENGTH OF ALL MATERIAL RECOVERED IN THE CORE BARREL DIVIDED BY TOTAL
CEMENTED	LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE. <u>DIKE</u> - A TABULAR BODY OF IGNEOUS ROCK THAT CUTS ACROSS THE STRUCTURE OF ADJACENT
IGS UNDER	ROCKS OR CUTS MASSIVE ROCK. <u>DIP</u> - THE ANGLE AT WHICH A STRATUM OR ANY PLANAR FEATURE IS INCLINED FROM THE
TINGS IF OPEN.	HORIZONTAL.
MER BLOWS IF	DIP DIRECTION DIP AZIMUTH- THE DIRECTION OR BEARING OF THE HORIZONTAL TRACE OF THE LINE OF DIP, MEASURED CLOCKWISE FROM NORTH.
UP TO FELDSPAR	FAULT - A FRACTURE OR FRACTURE ZONE ALONG WHICH THERE HAS BEEN DISPLACEMENT OF THE SIDES RELATIVE TO ONE ANOTHER PARALLEL TO THE FRACTURE.
ILOWS.	FISSILE - A PROPERTY OF SPLITTING ALONG CLOSELY SPACED PARALLEL PLANES.
in Rock has S compared	FLOAT - ROCK FRAGMENTS ON SURFACE NEAR THEIR ORIGINAL POSITION AND DISLODGED FROM PARENT MATERIAL.
DSPARS DULL	FLOOD PLAIN (FP) - LAND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM.
S OF STRENGTH EN STRUCK.	FORMATION (FM.) - A MAPPABLE GEOLOGIC UNIT THAT CAN BE RECOGNIZED AND TRACED IN THE FIELD.
ENT BUT REDUCED	JOINT - FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS OCCURRED.
ZED TO SOME	LEDGE - A SHELF-LIKE RIDGE OR PROJECTION OF ROCK WHOSE THICKNESS IS SMALL COMPARED TO ITS LATERAL EXENT.
DISCERNIBLE BUT	LENS - A BODY OF SOIL OR ROCK THAT THINS OUT IN ONE OR MORE DIRECTIONS. MOTTLED (MOT.)- IRREGULARLY MARKED WITH SPOTS OF DIFFERENT COLORS.MOTTLING IN
STRONG ROCK	SOILS USUALLY INDICATES POOR AERATION AND LACK OF GOOD DRAINAGE. PERCHED WATER - WATER MAINTAINED ABOVE THE NORMAL GROUND WATER LEVEL BY THE PRESENCE OF AN
HAT ONLY MINOR <i>UES &lt; 100 BPF</i>	INTERVENING IMPERVIOUS STRATUM.
SMALL AND SAPROLITE IS	RESIDUAL (RES.) SOIL - SOIL FORMED IN PLACE BY THE WEATHERING OF ROCK.
	ROCK QUALITY DESIGNATION (ROD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF ROCK SEGMENTS EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE.
REQUIRES	SAPROLITE (SAP.) - RESIDUAL SOIL THAT RETAINS THE RELIC STRUCTURE OR FABRIC OF THE PARENT ROCK.
WS REQUIRED	<u>SILL</u> - AN INTRUSIVE BODY OF IGNEOUS ROCK OF APPROXIMATELY UNIFORM THICKNESS AND RELATIVELY THIN COMPARED WITH ITS LATERAL EXTENT, THAT HAS BEEN EMPLACED PARALLEL TO THE BEODING OR SCHISTOSITY OF THE INTRUDED ROCKS.
P CAN BE TACHED	$\frac{\text{SLICKENSIDE}}{\text{SLIP}$ PAULSHED AND STRIATED SURFACE THAT RESULTS FROM FRICTION ALONG A FAULT OR SLIP PLANE.
PICK POINT. BLOWS OF THE	STANDARD PENETRATION TEST (PENETRATION RESISTANCE)(SPT) - NUMBER OF BLOWS (N OR BPF)OF A 140 LB. HAMMER FALLING 30 INCHES REQUIRED TO PRODUCE A PENETRATION OF 1 FOOT INTO SOIL WITH A 2 INCH OUTSIDE DIAMETER SPLIT SPOON SAMPLER. SPT REFUSAL IS PENETRATION EQUAL TO OR LESS THAN 0.1 FOOT PER 60 BLOWS.
RAGMENTS SMALL, THIN	STRATA CORE RECOVERY (SREC.) - TOTAL LENGTH OF STRATA MATERIAL RECOVERED DIVIDED BY TOTAL LENGTH OF STRATUM AND EXPRESSED AS A PERCENTAGE.
PIECES 1 INCH D READILY BY	STRATA ROCK QUALITY DESIGNATION (SROD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF ROCK SECMENTS WITHIN A STRATUM EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF STRATA AND EXPRESSED AS A PERCENTAGE.
	TOPSOLL (TS.) - SURFACE SOLS USUALLY CONTAINING ORGANIC MATTER.
CKNESS	BENCH MARK:
FEET 4 FEET	
1.5 FEET 0.16 FEET	ELEVATION: FT.
• 0.03 FEET 008 FEET	NOTES:
PRESSURE, ETC.	
L PROBE:	
ROBE:	



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2,140		4										dry		T aved	at 15.5	5						2,14	<u>10</u>
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