

SUBSURFACE INVESTIGATION

SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

SOIL IS CONSIDERED TO BE THE UNCONSOLIDATED, SEMI-CONSOLIDATED OR WEATHERED EARTH MATERIALS WHICH CAN BE PENETRATED WITH A CONTINUOUS FLIGHT POWER AUGER...

GRADATION WELL GRADED - INDICATES A GOOD REPRESENTATION OF PARTICLE SIZES FROM FINE TO COARSE. UNIFORM - INDICATES THAT SOIL PARTICLES ARE ALL APPROXIMATELY THE SAME SIZE. (ALSO POORLY GRADED) GAP-GRADED - INDICATES A MIXTURE OF UNIFORM PARTICLES OF TWO OR MORE SIZES.

TERMS AND DEFINITIONS ALLUVIUM (ALLUV.) - SOILS WHICH HAVE BEEN TRANSPORTED BY WATER. APPARENT DIP - THE DIP OF ROCK STRATA NOT PERPENDICULAR TO STRIKE.

ABBREVIATIONS BLD. - BOULDER CL. - CLAY COB. - COBBLE CSE. - COARSE EST. - ESTIMATED F. - FINE FOSS. - FOSSILIFEROUS FRAC. - FRACTURED GR. - GRAVEL LL - LIQUID LIMIT MED. - MEDIUM W - MOISTURE CONTENT MOT. - MOTTLED OM - OPTIMUM MOISTURE ORG. - ORGANIC

SOIL LEGEND AND AASHTO CLASSIFICATION table with columns for GENERAL CLASS., GROUP CLASS., SYMBOL, % PASSING, LIQUID LIMIT, PLASTIC INDEX, GROUP INDEX, USUAL TYPES OF MAJOR MATERIALS, GEN. RATING AS A SUBGRADE.

MINERALOGICAL COMPOSITION MINERAL NAMES SUCH AS QUARTZ, FELDSPAR, MICA, TALC, KAOLIN, ETC. ARE USED IN DESCRIPTIONS WHENEVER THEY ARE CONSIDERED OF SIGNIFICANCE.

COMPRESSIONS SLIGHTLY COMPRESSIBLE LIQUID LIMIT LESS THAN 30 MODERATELY COMPRESSIBLE LIQUID LIMIT 31-50 HIGHLY COMPRESSIBLE LIQUID LIMIT GREATER THAN 50

ABBREVIATIONS PL - PLASTIC LIMIT PI - PLASTICITY INDEX n - POROSITY SD. - SAND SAT. - SATURATED SL. - SILT, SILTY SLI. - SLIGHTLY Gs - SPECIFIC GRAVITY qu - UNCONFINED COMPRESSIVE STRENGTH gamma - UNIT WEIGHT (WET UNIT WEIGHT) gamma\_d - DRY UNIT WEIGHT gamma\_sat - SATURATED UNIT WEIGHT e - VOID RATIO v. - VERY

CONSISTENCY OR DENSENESS table with columns for PRIMARY SOIL TYPE, COMPACTNESS OR CONSISTENCY, RANGE OF STANDARD PENETRATION RESISTANCE (BLOWS), RANGE OF UNCONFINED COMPRESSIVE STRENGTH (KN/m^2).

ROCK DESCRIPTION IN THE BROADEST MEANING, HARD ROCK IS CONSIDERED THAT MATERIAL WHICH CANNOT BE SAMPLED BY CONVENTIONAL SOIL SAMPLING TOOLS OR TECHNIQUES. THE BOUNDARY BETWEEN SOIL AND ROCK IS ARBITRARY.

GROUND WATER WATER LEVEL IN BORE HOLE IMMEDIATELY AFTER DRILLING. STATIC WATER LEVEL AFTER \_\_\_\_\_ HOURS. PERCHED WATER, SATURATED ZONE OR WATER BEARING STRATA. SPRING OR SEEPAGE

CAUTION NOTICE: THE SUBSURFACE INFORMATION AND THE SUBSURFACE INVESTIGATION ON WHICH IT IS BASED WAS MADE FOR THE PURPOSE OF STUDY, PLANNING AND DESIGN, AND NOT FOR CONSTRUCTION OR PAY PURPOSES.

TEXTURE OR GRAIN SIZE table with columns for U.S. STD. SIEVE SIZE OPENING (MM), COARSE SAND, FINE SAND, SILT, CLAY.

MISCELLANEOUS SYMBOLS AND ABBREVIATIONS ROADWAY EMBANKMENT WITH SOIL DESCRIPTION. SOIL SYMBOL. ARTIFICIAL FILL OTHER THAN ROADWAY EMBANKMENTS. INFERRED SOIL BOUNDARIES. ALLUVIAL/RESIDUAL BOUNDARIES. 25° DIP DIRECTION AND DIP OF STRUCTURES. APPARENT DIP (NORMAL TO \_\_\_\_\_).

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ADDITIONAL INFORMATION MAY BE AVAILABLE, INCLUDING, BUT NOT LIMITED TO THE FOLLOWING: FIELD BORING LOGS, ROCK CORES, SOIL & ROCK TEST DATA, SUBSURFACE REPORT.

SOIL MOISTURE - CORRELATION OF TERMS table with columns for SOIL MOISTURE SCALE (ATTERBERG LIMITS), FIELD MOISTURE DESCRIPTION, GUIDE FOR FIELD MOISTURE DESCRIPTION.

EQUIPMENT USED ON SUBJECT PROJECT DRILL UNITS: MOBILE B, BK-51, CME-45B, CME-550, PORTABLE HOIST, OTHER. AUGER TOOLS: 6" (152 mm) CONTINUOUS FLIGHT, 8" (203 mm) HOLLOW AUGERS, HARD FACED FINGER BITS, TUNG. - CARBIDE INSERTS, CLAY BITS, OTHER. HAMMER TYPE: AUTOMATIC, MANUAL. CORE BORING TOOLS: AX, BX, NX. HAND TOOLS: POST HOLE DIGGER, HAND AUGER, SOUNDING ROD, VANE SHEAR TEST.

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PLASTICITY table with columns for PLASTICITY INDEX, DRY STRENGTH.

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COLOR table with columns for DESCRIPTIONS MAY INCLUDE COLOR OR COLOR COMBINATIONS (TAN, RED, YEL-BRN, BLUE-GRAY) MODIFIERS SUCH AS LIGHT, DARK, MOTTLED, STREAKED, ETC. ARE USED TO DESCRIBE APPEARANCE.

REMARKS: TRIGONOMETRIC CASING

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