

REFERENCE: CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL (2010)

GROUP SYMBOLS AND NAMES			
GRAPHIC/SYMBOL	GROUP NAMES	GRAPHIC/SYMBOL	GROUP NAMES
	GW WELL-GRADED GRAVEL WELL-GRADED GRAVEL WITH SAND		CL LEAN CLAY LEAN CLAY WITH SAND LEAN CLAY WITH GRAVEL SANDY LEAN CLAY SANDY LEAN CLAY WITH GRAVEL GRAVELLY LEAN CLAY GRAVELLY LEAN CLAY WITH SAND
	GP POORLY-GRADED GRAVEL POORLY-GRADED GRAVEL WITH SAND		
	GW-GM WELL-GRADED GRAVEL WITH SILT WELL-GRADED GRAVEL WITH SILT AND SAND		CL-ML SILTY CLAY SILTY CLAY WITH SAND SILTY CLAY WITH GRAVEL SANDY SILTY CLAY SANDY SILTY CLAY WITH GRAVEL GRAVELLY SILTY CLAY GRAVELLY SILTY CLAY WITH SAND
	GP-GM POORLY-GRADED GRAVEL WITH SILT POORLY-GRADED GRAVEL WITH SILT AND SAND		
	GW-GC WELL-GRADED GRAVEL WITH CLAY (OR SILTY CLAY) WELL-GRADED GRAVEL WITH CLAY AND SAND (OR SILTY CLAY AND SAND)		ML SILT SILT WITH SAND SILT WITH GRAVEL SANDY SILT SANDY SILT WITH GRAVEL GRAVELLY SILT GRAVELLY SILT WITH SAND
	GP-GC POORLY-GRADED GRAVEL WITH CLAY (OR SILTY CLAY) POORLY-GRADED GRAVEL WITH CLAY AND SAND (OR SILTY CLAY AND SAND)		
	GM SILTY GRAVEL SILTY GRAVEL WITH SAND		OL ORGANIC LEAN CLAY ORGANIC LEAN CLAY WITH SAND ORGANIC LEAN CLAY WITH GRAVEL SANDY ORGANIC LEAN CLAY SANDY ORGANIC LEAN CLAY WITH GRAVEL GRAVELLY ORGANIC LEAN CLAY GRAVELLY ORGANIC LEAN CLAY WITH SAND
	GC CLAYEY GRAVEL CLAYEY GRAVEL WITH SAND		
	GC-GM SILTY, CLAYEY GRAVEL SILTY, CLAYEY GRAVEL WITH SAND		OL ORGANIC SILT ORGANIC SILT WITH SAND ORGANIC SILT WITH GRAVEL SANDY ORGANIC SILT SANDY ORGANIC SILT WITH GRAVEL GRAVELLY ORGANIC SILT GRAVELLY ORGANIC SILT WITH SAND
	SW WELL-GRADED SAND WELL-GRADED SAND WITH GRAVEL		
	SP POORLY-GRADED SAND POORLY-GRADED SAND WITH GRAVEL		CH FAT CLAY FAT CLAY WITH SAND FAT CLAY WITH GRAVEL SANDY FAT CLAY SANDY FAT CLAY WITH GRAVEL GRAVELLY FAT CLAY GRAVELLY FAT CLAY WITH SAND
	SW-SM WELL-GRADED SAND WITH SILT WELL-GRADED SAND WITH SILT AND GRAVEL		
	SW-SC WELL-GRADED SAND WITH CLAY (OR SILTY CLAY) WELL-GRADED SAND WITH CLAY AND GRAVEL (OR SILTY CLAY AND GRAVEL)		MH ELASTIC SILT ELASTIC SILT WITH SAND ELASTIC SILT WITH GRAVEL SANDY ELASTIC SILT SANDY ELASTIC SILT WITH GRAVEL GRAVELLY ELASTIC SILT GRAVELLY ELASTIC SILT WITH SAND
	SP-SM POORLY-GRADED SAND WITH SILT POORLY-GRADED SAND WITH SILT AND GRAVEL		
	SP-SC POORLY-GRADED SAND WITH CLAY (OR SILTY CLAY) POORLY-GRADED SAND WITH CLAY AND GRAVEL (OR SILTY CLAY AND GRAVEL)		OH ORGANIC FAT CLAY ORGANIC FAT CLAY WITH SAND ORGANIC FAT CLAY WITH GRAVEL SANDY ORGANIC FAT CLAY SANDY ORGANIC FAT CLAY WITH GRAVEL GRAVELLY ORGANIC FAT CLAY GRAVELLY ORGANIC FAT CLAY WITH SAND
	SM SILTY SAND SILTY SAND WITH GRAVEL		
	SC CLAYEY SAND CLAYEY SAND WITH GRAVEL		OH ORGANIC ELASTIC SILT ORGANIC ELASTIC SILT WITH SAND ORGANIC ELASTIC SILT WITH GRAVEL SANDY ORGANIC ELASTIC SILT SANDY ORGANIC ELASTIC SILT WITH GRAVEL GRAVELLY ORGANIC ELASTIC SILT GRAVELLY ORGANIC ELASTIC SILT WITH SAND
	SC-SM SILTY, CLAYEY SAND SILTY, CLAYEY SAND WITH GRAVEL		
	PT PEAT		OL/OH ORGANIC SOIL ORGANIC SOIL WITH SAND ORGANIC SOIL WITH GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL WITH GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL WITH SAND
			COBBLES COBBLES AND BOULDERS BOULDERS

FIELD AND LABORATORY TESTING

- (C) CONSOLIDATION (ASTM D 2435)
- (CL) COLLAPSE POTENTIAL (ASTM D 5333)
- (CP) COMPACTION CURVE (CTM 216)
- (CR) CORROSIVITY TESTING (CTM 643, CTM 422, CTM 417)
- (CU) CONSOLIDATED UNDRAINED TRIAXIAL (ASTM D 4767)
- (DS) DIRECT SHEAR (ASTM D 3080)
- (EI) EXPANSION INDEX (ASTM D 4829)
- (M) MOISTURE CONTENT (ASTM D 2216)
- (OC) ORGANIC CONTENT-% (ASTM D 2974)
- (P) PERMEABILITY (CTM 220)
- (PA) PARTICLE SIZE ANALYSIS (ASTM D 422)
- (PI) PLASTICITY INDEX (AASHTO T 90)
LIQUID LIMIT (AASHTO T 89)
- (PL) POINT LOAD INDEX (ASTM D 5731)
- (PM) PRESSURE METER
- (R) R-VALUE (CTM 301)
- (SE) SAND EQUIVALENT (CTM 217)
- (SG) SPECIFIC GRAVITY (AASHTO T 100)
- (SL) SHRINKAGE LIMIT (ASTM D 427)
- (SW) SWELL POTENTIAL (ASTM D 4546)
- (UC) UNCONFINED COMPRESSION-SOIL (ASTM D 2166)
- UNCONFINED COMPRESSION-ROCK (ASTM D 2938)
- (UU) UNCONSOLIDATED UNDRAINED TRIAXIAL (ASTM D 2850)
- (UW) UNIT WEIGHT (ASTM D 4767)

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

CERTIFIED ENGINEERING GEOLOGIST
 May 20, 2011
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA BY ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

APPARENT DENSITY OF COHESIONLESS SOILS

DESCRIPTION	SPT N ₆₀ (BLOWS / 12 INCHES)
VERY LOOSE	0 - 5
LOOSE	5 - 10
MEDIUM DENSE	10 - 30
DENSE	30 - 50
VERY DENSE	GREATER THAN 50

MOISTURE

DESCRIPTION	CRITERIA
DRY	NO DISCERNABLE MOISTURE
MOIST	MOISTURE PRESENT, BUT NO FREE WATER
WET	VISIBLE FREE WATER

PERCENT OR PROPORTION OF SOILS

DESCRIPTION	CRITERIA
TRACE	PARTICLES ARE PRESENT BUT ESTIMATED TO BE LESS THAN 5%
FEW	5% - 10%
LITTLE	15% - 25%
SOME	30% - 45%
MOSTLY	50% - 100%

PARTICLE SIZE

DESCRIPTION		SIZE
BOULDER		GREATER THAN 12"
COBBLE		3" - 12"
GRAVEL	COARSE	3/4" - 3"
	FINE	1/5" - 3/4"
SAND	COARSE	1/16" - 1/5"
	MEDIUM	1/64" - 1/16"
	FINE	1/300" - 1/64"
SILT AND CLAY		LESS THAN 1/300"

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
LEGEND - SOIL
(SHEET 2 OF 2)
NO SCALE

A10G

2010 STANDARD PLAN A10G