












UNIFIED SOIL CLASSIFICATION SYSTEM			
Major Divisions		Symbols	Typical Names
Coarse-Grained Soils (more than half of soil > no. 200 sieve size)	Gravels (More than half of coarse fraction > no. 4 sieve size)	GW	Well-graded gravels or gravel-sand mixtures, little or no fines
		GP	Poorly-graded gravels or gravel-sand mixtures, little or no fines
		GM	Silty gravels, gravel-sand-silt mixtures
		GC	Clayey gravels, gravel-sand-clay mixtures
	Sands (More than half of coarse fraction < no. 4 sieve size)	SW	Well-graded sands or gravelly sands, little or no fines
		SP	Poorly-graded sands or gravelly sands, little or no fines
		SM	Silty sands, sand-silt mixtures
		SC	Clayey sands, sand-clay mixtures
Fine -Grained Soils (more than half of soil < no. 200 sieve size)	Silts and Clays LL = < 50	ML	Inorganic silts and clayey silts of low plasticity, sandy silts, gravelly silts
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, lean clays
		OL	Organic silts and organic silt-clays of low plasticity
	Silts and Clays LL = > 50	MH	Inorganic silts of high plasticity
		CH	Inorganic clays of high plasticity, fat clays
		OH	Organic silts and clays of high plasticity
		Highly Organic Soils	

GRAIN SIZE CHART		
Classification	Range of Grain Sizes	
	U.S. Standard Sieve Size	Grain Size in Millimeters
Boulders	Above 12"	Above 305
Cobbles	12" to 3"	305 to 76.2
Gravel coarse fine	3" to No. 4	76.2 to 4.76
	3" to 3/4"	76.2 to 19.1
	3/4" to No. 4	19.1 to 4.76
Sand coarse medium fine	No. 4 to No. 200	4.76 to 0.075
	No. 4 to No. 10	4.76 to 2.00
	No. 10 to No. 40	2.00 to 0.420
	No. 40 to No. 200	0.420 to 0.075
Silt and Clay	Below No. 200	Below 0.075

 Unstabilized groundwater level
 Stabilized groundwater level

SAMPLE DESIGNATIONS/SYMBOLS

-  Sample taken with Sprague & Henwood split-barrel sampler with a 3.0-inch outside diameter and a 2.43-inch inside diameter. Darkened area indicates soil recovered
-  Classification sample taken with Standard Penetration Test sampler
-  Undisturbed sample taken with thin-walled tube
-  Sample taken with Dames & Moore U-Type split-barrel sampler with a 3.5-inch outside diameter and a 2.5-inch inside diameter
-  Disturbed sample, hand auger
-  Sampling attempted with no recovery
-  Core sample
-  Analytical laboratory sample, grab groundwater
-  Sample taken with Direct Push sampler

SAMPLER TYPE

- | | |
|--|---|
| <p>C Core barrel</p> <p>CA California split-barrel sampler with 2.5-inch outside diameter and a 1.93-inch inside diameter</p> <p>D&M Dames & Moore piston sampler using 2.5-inch outside diameter, thin-walled tube</p> <p>D&M U Dames & Moore U-Type split-barrel sampler with a 3.5-inch outside diameter and a 2.5-inch inside diameter</p> <p>O Osterberg piston sampler using 3.0-inch outside diameter, thin-walled Shelby tube</p> | <p>PT Pitcher tube sampler using 3.0-inch outside diameter, thin-walled Shelby tube</p> <p>S&H Sprague & Henwood split-barrel sampler with a 3.0-inch outside diameter and a 2.43-inch inside diameter</p> <p>SPT Standard Penetration Test (SPT) split-barrel sampler with a 2.0-inch outside diameter and a 1.5-inch inside diameter</p> <p>ST Shelby Tube (3.0-inch outside diameter, thin-walled tube) advanced with hydraulic pressure</p> |
|--|---|

DRAFT

BLOCKS 29-32
MISSION BAY
 San Francisco, California

Treadwell & Rollo
 A LANGAN COMPANY

CLASSIFICATION CHART

Date 11/15/11 Project No. 750603902 Figure A-25