General Properties of Cohesive Soil (after ASCE 1996)

Soil Consistency Description	SPT Blow Count "N"	Undrained Shear Strength "c" – lb/ft^2	Saturated Unit Weight (psf)
Very Soft	0 – 2	< 250	< 100 - 110
Soft	3 – 4	250 – 500	100 – 120
Firm	5 – 8	500 – 1,000	110 – 125
Stiff	9 – 16	1,000 – 2,000	115 – 130
Very Stiff	16 – 32	2,000 – 4,000	120 – 140
Hard	> 32	> 4,000	> 130

General Properties of Non-Cohesive Soil (ASCE 1996)

Soil Density Description	Relative Density "%"	SPT Blow Count "N"	Angle of Internal Friction Φ	Unit Weight (lb/ft^3)	
				Moist "γ_m"	Submerged "γ_{sub}"
Very Loose	0-15	0 – 4	< 28	< 100	< 60
Loose	16-35	5 – 10	28 – 30	95 - 125	55 – 65
Medium Dense	36-65	11 – 30	31 – 36	110 – 130	60 – 70
Dense	66-85	31 – 50	37 – 41	110 – 140	65 – 85
Very Dense	86-100	> 51	> 41	> 130	> 75

Soil Resistivity and Corrosion rate table

Resistance Classification	Soil Resistivity	Soil Type	Resistivity Range(ohm/cm)	Corrosion Potential
Low	0 - 2000	clay	500 - 2000	Severe
		silt	1000 - 2000	
Medium	2000 - 10,000	Loams	3000 - 10,000	Moderate
		Fine Silts & Organic	2000 - 10,000	
High	10,000 - 30,000	Sand	10,000 - 30,000	Mild
Very High	above 30,000	Sand	30,000 - 100,000	Unlikely
		Gravel	40,000 - 200,000	