

Sub-soil Exploration

a) Boring

- Wash boring (up to 150 ft)
- Auger boring (up to 30 ft)

b) Sampling

- Disturbed sampling
- Undisturbed sampling (for cohesive soil only)

c) Field testing

- Standard Penetration Test (SPT)

d) Laboratory testing

- Visual Inspection and Classification
- Specific Gravity
- Sieve and Hydrometer Analysis
- Unit Weight (Wet & Dry)
- In- situ Density Test
- Liquid Limit & Plastic Limit
- Shrinkage Limit
- Unconfined compression test
- Compaction test
- One dimensional consolidation (full)
- One dimensional consolidation (e-logp)
- Triaxial shear test (UU)
- Direct shear test
- Permeability test

Bearing capacity analysis

a) Bearing capacity of Shallow foundation

b) Bearing capacity of Deep foundation

Analysis of liquefaction potential of soil