

**FOLLOWING ARE TESTS WHICH CAN BE PERFORMED AT SOIL MECHANICS &
FOUNDATION MATERIAL LABORATORY**

S.No	Standard	Description of Test	Equipment (if any)
1.	ASTM D 4318, AASHTO T 89-96	Determine of Liquid Limit of soil.	Cassagrande apparatus
2.	ASTM D 4318, AASHTO T 90-96	Determining the Plastic limit & Plasticity index of Soil	Plastic limit apparatus i.e. (porcelain dish, glass surface for rolling and spatula)
3.	AASHTO T 204-90	Determination of filed density of Soil by drive cylinder (Core Cutter) Method.	Drive cylinder, detachable drive head, drive hammer, shovel and steel straightedge)
4.	ASTM D 1556-64(1982), AASHTO T 191-93 (1996)	Determination of filed density of Soil by Sad Replacement Method.	Sand cone apparatus , tray with a hole, chisel and container)
5.	ASTM D 422	Determination of Particle Sieve Analysis (Sieve Analysis) of Soil.	75,37.5,19,9.5,4,75,2,0.840,0.425,0.250,0.15 and 0.075 (all sizes are in mm)
6.	ASTM D 698-70, AASHTO T 99-97	Determination of Moisture-Density relations of Soil by (AASHTO Compaction test i.e. Standard Proctor)	Compaction mold (4") with detachable collar and detachable base plate, rammer with a mass of 5.5-lb and straightedge for trimming the soil.
7.	ASTM D 1557-70, AASHTO T 180-97	Determination of Moisture-Density relations of Soil by (Modified AASHTO Compaction test)	Compaction mold (6") with detachable collar and detachable base plate, rammer with a mass of 10-lb and straightedge for trimming the soil.
8.	ASTM D 854, AASHTO T 100	Determination of Specific Gravity of Soil.	Pycnometer; capacity of 50-ml
9.	ASTM D 2434-68(2000), AASHTO T 215-70 (2003).	Determination of Permeability of Granular Soil (Constant Head Method).	Permeameter with measuring panel and ancillary equipment
10.		Determination of Permeability of Fine Grain Soil (Variable Head Method).	Cutting-edge compaction permeameter and measuring panel.
11.	ASTM D 1194-94, AASHTO T 235-96	Plate load test for bearing capacity of soil	Loading platform, jack, bearing plates, dial gauges, reference beams and tools
12.	ASTM D 1586	Standard penetration test (SPT)	Split spoon sampler, tripod stand and hammer etc.
13.	ASTM D 3282-93	Determination of Classification of soil	No.10, No.40 and No.200
14.	ASTM D 3080-90	Determination of Shear strength parameters by shear box test.	Shear box machine
15.	AASHTO T 208	Determination of Shear strength parameters by Unconfined compression test.	Compression machine, load and deformation dial gauges and simple trimming equipment.

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16.	ASTM D 2573	Determination of Shear strength parameters by Vane shear test.	Shear vanes of different dimensions.
17.	ASTM D 2850-03	Determination of Shear strength parameters by Triaxial compression test.	Axial loading device, Axial load-measuring device, Triaxial compression chamber etc.
18.	ASTM D 2435	Determination of Modulus of compressibility, compression index, pre-consolidation pressure and coefficient of consolidation by Oedometer test.	Consolidation (Oedometer) and loading arrangement
19.	ASTM D 1883-14	CBR Test (Soaked and Un-soaked)	CBR Apparatus
20.	ASTM D 422	Hydrometer analysis test	Hydrometer, water bath, thermometer etc
21.	ASTM D 2216	Moisture Content of sample	Balance, oven
22.	ASTM D 4943-08	Shrinkage Limit of soil	
23.	ASTM 4254-14	Relative density of sand	Vibrating Table, Mold Assembly consisting of standard mold, guide sleeves, surcharge base-plate, surcharge weights, surcharge base-plate handle, and dial-indicator gage, Balance, Scoop, Straightedge
24.		Calibration of mould's (proctor), speedy moisture tester, sand cone apparatus and thermometer.	
25.		Visit of expert at site for soil investigation	