

Geotechnical Methods

CLASSIFICATION AND INDEX TESTING	
Particle size distribution (with or without hydrometer)	ASTM D422
Atterberg Limits	ASTM D4318
Moisture Content	ASTM D2216
Soil Classification*	ASTM D2487
Loss in Ignition	ASTM D2974
Bulk Unit Weight	ASTM D2937
Specific Gravity	ASTM D854
* KEMRON provides USCS as well as AASHTO classification	

STRENGTH AND CONSOLIDATION TESTING	
Unconfined Compressive Strength (UCS)	ASTM D1633
Unconfined Compressive Strength (with stress-strain graph)	ASTM D2166
Unconsolidated Undrained Triaxial Shear Test (UU)	ASTM D2850
Consolidated Undrained Triaxial Shear Test (CU) (with pore pressure measurements)	ASTM D4767
One-dimensional Consolidation	ASTM D2435
Triaxial Compression Creep Strength	ASTM D5202

COMPACTION TESTING	
Standard Proctor Compaction	ASTM D698
Modified Proctor Compaction	ASTM D1557
California Bearing Ration (CBR) (based on standard or modified compaction)	ASTM D1883

PERMEABILITY TESTING	
Falling Head Permeability-flexible wall (performed on fine-grain materials such as silts and clays)	ASTM D5084
Constant head Permeability - rigid wall (performed on coarse-grain materials such as sand and gravel)	ASTM D2434

DURABILITY EVALUATIONS	
Wet/Dry Durability	ASTM D559 ASTM D4843
Freeze/Thaw Durability	ASTM D560 ASTM D4842