



Geotechnical expertise will make or break a project — literally. Soil, rock, and groundwater conditions vary dramatically. Factors such as slope, seepage, bearing capacity, and settlement must be investigated and evaluated. Understanding the surface and subsurface material on which you are building or working is vital to project success. Proactive geotechnical engineering keeps waste/ash disposal areas, impoundments, and mining operations safe and business objectives on target.

In construction and mining, a project is only as strong as the ground below – or above.

A diverse set of geotechnical capabilities is required if your project is to stand the test of time. Our geotechnical laboratory enables us to perform a multitude of tests that yield essential data. The lab work can be incorporated into ongoing projects, or SynTerra can take the project from beginning to end.

SynTerra geotechnical solutions extend well beyond lab work. Our construction field services and investigations help ensure a job is completed to specifications. SynTerra consulting expertise ranges from foundation settlement or movement to mine subsidence to landslides. Our professional engineers, geologists, and scientists serve as expert witnesses in litigation regarding geotechnical issues.

SYNTERRA CAPABILITIES FOR GEOTECHNICAL ENGINEERING

Geotechnical Laboratory

- Sieve Analyses
- Hydrometer Analyses
- Atterberg Limits
- Standard and Modified Proctor
- Slake Durability Index
- Unconfined Compressive Strength

Construction Field Services

- Concrete Sampling
- Field Air Content
- Slump
- Compressive Strength
- Field Compaction Testing
- Foundation Observations

Geotechnical Analyses

- Bearing Capacity
- Slope Stability
- Seepage
- Settlement

Design Projects

- Embankments
- Cut Slope Design
- Retaining Walls
- Slurry Impoundments
- Coal Refuse
Embankments
- Fresh Water Dams
- Abandoned Mine Lands
Reclamation

Investigations

- Subsurface
- Building Foundation
and Settlement
- Mine Subsidence
Impacting Structures
- Landslide Failures and
Remediation
- Expert Witness Services

