



# Geotechnical Services | Overview

Designing and constructing reliable foundations and infrastructure requires a thorough understanding of soil, rock, and groundwater conditions. Obtaining accurate geotechnical data can be the difference in successful project completion or delays that cost time and money.

## Experience and Expertise

Through Terracon's nationwide network of geotechnical professionals, access to more than 50 years of historical subsurface exploration data from thousands of locations across the country, and GIS-enabled geology mapping, we can accurately anticipate ground conditions and develop an intelligent, safe work plan. Our innovative technologies, combined with our network of accredited and validated laboratories, facilitate practical design recommendations to address various site issues.

## Stage1 Predictive Analysis

Stage1 is a technology developed by Terracon that allows quick, site-specific research, so project planning and feasibility-level design can move forward, with a plan to confirm expectations in later project phases. Clients can interact with GIS layers, tap into our historical subsurface data, and receive the opinion of our experienced geotechnical professionals to

understand preliminary geotechnical site considerations prior to field exploration. Using this web-based delivery system, real-time collaborative reporting and decision-making is faster, more informed, and more efficient.

## Subsurface Exploration

Terracon has been in the exploration business since 1965. Our exploration equipment can access almost any site condition. We use a wide variety of intrusive exploration and sampling methods, as well as specialized in-situ testing methods, including hand and hollow stem augering, rock coring, angle drilling, cone penetration testing (CPT and SCPTu), downhole vane shear, pressure meter testing, borehole shear, packer testing, and dilatometer modulus testing.

Terracon's geophysical capabilities include various non-intrusive methods that complement our traditional subsurface exploration. Our geophysical surveys provide valuable data that cannot be gathered through invasive methods, especially in remote or inaccessible areas.

## Laboratory Testing

With more than 140 laboratories serving all 50 states, Terracon owns, operates, and maintains the largest network of

accredited and validated laboratories of any geotechnical engineering firm in the United States. Our clients can be confident we are able to consistently produce reliable, repeatable, and accurate test data on projects anywhere in the country. From routine index testing, advanced soils testing, corrosivity testing, and petrographic analysis, we are able to process large volumes of test specimens quickly, reducing risk of delays to our clients' critical project schedules.

## Geostructural Design and Instrumentation

Whether a project needs excavation support to allow underground development, retaining walls to facilitate development of sloping sites, ground improvement systems to provide foundation support over soft soils, or micropiles to support heavy loads in confined areas, we can design a solution to appropriately fit our clients' needs. Terracon engineers have extensive experience in preparing geostructural instrumentation monitoring plans, performing instrumentation installation, and providing monitoring and web-hosting services for remote, real-time project instrumentation monitoring.



GEOTECHNICAL LABORATORY SERVICES



TERRACON'S STAGE1 PLATFORM

## Why Terracon?

**Resourceful.** We apply new processes, methodologies, and techniques to solve project challenges cost-effectively. To do this seamlessly, we draw upon our vast geotechnical engineering experience and initiate services on one or multiple projects simultaneously.

**Responsive.** Through our national network of offices, accredited laboratories, exploration fleet, and geophysical engineering professionals, Terracon can act quickly to develop a customized approach to provide you the most cost-effective program to develop the best data for you.

**Reliable.** We deliver high-quality, expert soil and rock characterization using diverse exploration methods and software. This ensures our geotechnical engineering professionals provide the accurate and precise results you need to be successful.

*"I have experience with many geotechnical engineering companies, and I will only work with the best to complete projects for me. Because of excellent past experiences, Terracon is my default geotechnical firm. They are the ones I call, no matter where in the country the project is located."*

-PAMELA PAULK, STATEC ARCHITECTURE, INC.



### ENR Rankings 2024

#2	Asbestos and Lead Abatement
#10	Top 100 Pure Designers
#18	Top 500 Design Firms
#44	Top 150 Global Design Firms
#71	Top 200 Environmental Firms

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