



# The Geotechnical Report

## The “Soils Report”

### DEFINITION

THE GEOTECHNICAL Investigation (or subsurface investigation): The boring and sampling process, together with associated laboratory tests, necessary to establish subsurface profiles and the relative strengths, compressibility, and other characteristics of the various strata encountered within depths likely to have an influence on the design of the building. (AIA)

- The Engineer in charge of the Geotechnical Investigation is a consultant to the Owner. The Geotechnical Report is Owner’s Provided Information.

### The Geotechnical Report

THE contents and their arrangement in the report will vary with each engineering practice. This list is taken from the [civilblog.org](http://civilblog.org) and is included in this module only as a reference.

- Title Page
- Table of Contents
- Introduction
- Project Description
- Geologic Conditions and Seismicity
- Field Investigations (summary, with details in Appendices A, B, D, and E)
- Laboratory Analyses (summary, with details in Appendix C)
- Discussion (with supporting figures in Appendix A)
- Summary of Engineering Analyses and Calculations (typically a summary will suffice in a main section of the Geotechnical Report, and the detailed documentation of analyses and calculation could be in an appendix or as a separate report)
- Recommendations
- References
- Appendix A: Figures
  - Site Location Map
  - Soil Boring Location Map
  - Geologic Mapping
  - Supporting Photographs of Site Conditions
  - Interpreted Geologic Cross-Sections
  - Recommended Design Details
- Appendix B: Subsurface Explorations Data

- Boring Log Key
- Boring Logs
- Test Pit Logs
- Geophysical Data
- Appendix C: Laboratory Test Results
- Appendix D: In Situ Test Results
- Appendix E: Instrumentation Results

### What we need TO PAY ATTENTION to

Most of the information in the soils report is intended for the structural design of the building, however we need to pay attention at some portions of the content:

- **Ground Water Level:** In some soils reports, waterproofing is specifically recommended, in others, only the depth of the ground water is given. In either case, this is something that concerns the architectural design of the building. Read this portion of the report carefully and, if you have questions on this, call the geotechnical engineer. If the project has a waterproofing consultant work with them from the beginning, take notes in the meetings, and ask the specifier attend.
- **Construction Recommendations:**
  - Interior Ground Slabs: Follow the report recommendations on vapor retarders, soil preparation, etc.
  - Exterior Slabs: Follow the report recommendations on soil preparation, thickness of the slabs, joints, etc.
  - Waterproofing: Locations and sometimes, type of waterproofing.

### THE PROJECT TEAM

Share the report with the civil engineer and the landscape architect, and any others whose portion of the design sits directly on grade, or goes under grade. Share it with the Contractor always.