

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

GEOTECHNICAL PRACTICES – GENERAL

INTRODUCTION

Completing a geotechnical exploration, whether it be for a bridge, retaining wall, roadway or other transportation related structure, involves far more than collecting subsurface data and samples, laboratory testing and engineering analyses. Many other tasks must be accomplished to ensure overall project success, including identification of project team participants, development of health and safety standards for work crews and the general public during execution of the geotechnical studies, and site restoration upon project completion. Additionally, there are limitations to geotechnical reports that must be understood by all those who rely upon the report's findings, conclusions and recommendations.

In almost all cases, site challenges will include confirming the presence and location of above and below ground utilities before commencing drilling and clearing activities. The project's plan general notes should also include "B4UDIG" Georgia Utilities Protection Center (UPC) (dial 811 or 1(800)282-7411) and the method of utility location. Occasionally there will be a local utility company that does not participate in the UPC program, which requires direct communication with that entity. Also, it is advisable to walk the project alignment with the utilities companies' representatives if it is an area that has significant utilities present or if critical utilities such as electrical, gas, or fiber optics exist. When staking boring locations in the field, overhead utilities cannot be forgotten. The geotechnical engineer should identify any overhead utility and locate borings a safe distance from the utility. For cases where borings cannot be offset a safe distance from overhead utilities, it is recommended that the consultant request that the utility line(s) be shielded and grounded by the utility company before mobilizing field equipment to the site.

For further reference on utility locations see GDOT's websites for the Office of Utilities, or the Plan Presentation Guide: <http://www.dot.ga.gov/doingbusiness/utilities/Pages/default.aspx>. or http://www.dot.ga.gov/doingbusiness/PoliciesManuals/roads/Plan/Plan_Presentation_Guide.pdf

The following sections detail items that have been and continue to be a major concern for the GDOT when dealing with private sector engineering companies and the general public during the course of project execution. The guidelines are broken down into the following sections:

- ◆ Guidelines for Project Notifications within GDOT
- ◆ Guidelines for Work on Private Property
- ◆ Erosion Control and Site Restoration Practices
- ◆ Limitations of Liability regarding Geotechnical Explorations & Reports
- ◆ Unsuitable Materials Investigation
- ◆ Guidelines for Preparation and Use of Special Provisions

Every site has its own unique challenges and conditions (both surface and subsurface). Therefore, not all of the guidelines included herein will be applicable for a given site, and deviations from the guidelines may be required as appropriate.

Frequent and clear communication between all involved parties before work begins generally establishes requirements and expectations and makes everyone aware of the actions to be taken and the consequences (if any) of those actions. It has been the intent of this committee to build communication practices and guidelines to reduce surprises either during or upon completion of the geotechnical investigations.