

# Requesting Geotechnical and GeoEnvironmental Input

Project Development and  
Environmental Analysis Branch



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## **Purpose**

The purpose of this procedure is to insure that study areas, corridors and alternatives which are developed during the NEPA Process, are evaluated for geoenvironmental issues (landfills, Super Fund sites, UST sites, AST sites, etc.) and geotechnical issues (rock cuts, hot rock, soft soils, high groundwater, etc.) at the earliest possible stage of planning.

## **Responsibility**

The Project Planning Engineer (PPE) is responsible for requesting information from the Geotechnical Engineering Unit. The PPE will provide adequate time to complete the request, and provide the most detailed information on the project available at the time of the request.

## **Scheduling and Time Constraints**

Allow three to six months to receive the Geotechnical Engineering Unit's report, depending on the type of request.

## **Procedures**

[New Location Projects](#)

[Widening Projects](#)

[Bridge Replacement Projects](#)

## Procedure 1: New Location Projects

New Location Projects will send, at a minimum, three separate requests for geotechnical data.

### Step 1. Scoping Meeting

- The PPE submits the first request before the scoping meeting using the Scoping Information Sheets.
- Send the sheets electronically to the State Geotechnical Engineer and copy the GeoEnvironmental Supervisor and the appropriate Regional Geotechnical Manager.
- The Geotechnical Unit will send an email confirming the request has been received within 1 week.
- The GeoEnvironmental Supervisor and the Regional Geotechnical Manager will submit their comments separately on the scoping sheets.
- The information from GEU will be based on GIS level data of the general area, experience, and cursory review of various databases.
- Allow 3 months for the completion of the scoping information sheets.

### Step 2. Concurrence Point 2 (CP2) Meeting

- The PPE submits this second request after the CP1 Meeting, when the study corridors have been identified.
- Fill out the [Geotechnical Request Form](#) and prepare any mapping. Mapping to send includes, but is not limited to:
  - Location Map with project limits
  - Aerial photography with corridor locations shown

Refer to [Mapping Criteria](#) for GEU requests for additional guidance.

- Submit the request form electronically to the State Geotechnical Engineer. Indicate the location of any electronic mapping on the request. Additionally, send 2 hard copies of any mapping. Hard copies are required by the field offices due to printing constraints. The GEU will move toward eliminating the need for any hard copies of maps in the future.
- The Geotechnical Unit will send an email confirming the request has been received within 1 week.
- The prepared report will combine the geoenvironmental and geotechnical information and will be based on a more detailed look at GIS level data and database information for the specific corridors.
- Allow 3 months for completion of this report.

### Step 3. Detailed Study Request

- The PPE submits this third request after the CP2 meeting at the same time the Environmental Input Request is submitted.
- Submit the request as described in Step 2 of this procedure.
- The mapping should be updated with the refined study areas. Additionally, the GIS Environmental Features Map with the specific corridors should be provided.
- The GEU will send an email confirming the request has been received within 1 week.

- The prepared report will combine the geoenvironmental and geotechnical information and will be based on field work per GEU's standard operating procedures.
- Allow 6 months for completion of this report.

## **Procedure 2: Widening Projects**

Widening projects will send, at a minimum, two separate requests for geotechnical data.

### **Step 1. Scoping Meeting**

- The PPE submits the first request before the scoping meeting using the Scoping Information Sheets.
- Send the sheets electronically to the State Geotechnical Engineer and copy the GeoEnvironmental Supervisor and the appropriate Regional Geotechnical Manager.
- The Geotechnical Unit will send an email confirming the request has been received within 1 week. The GeoEnvironmental Supervisor and the Regional Geotechnical Manager will submit their comments separately on the scoping sheets.
- The information from GEU will be based on GIS level data of the general area, experience, and cursory review of various databases.
- Allow 3 months for the completion of the scoping information sheets.

### **Step 2. Final Document**

- The PPE submits this second request after the CP2 Meeting for Merger projects or once the study alternatives have been identified for Non-Merger projects.
- Fill out the [Geotechnical Request Form](#) and prepare any mapping. Mapping to send includes, but is not limited to:
  - Location Map with project limits
  - Aerial photography with corridor locations shown
  - GIS based Environmental Features Map with corridor locations shown

Refer to Mapping Criteria for GEU requests and Environmental Features Map for additional guidance. [Mapping Criteria](#)

- Submit the request form electronically to the State Geotechnical Engineer. Indicate the location of any electronic mapping on the request. Additionally, send 2 hard copies of any mapping. Hard copies are required by the field offices due to printing constraints. The GEU will move toward eliminating the need for any hard copies of maps in the future.
- The Geotechnical Unit will send an email confirming the request has been received within 1 week.
- The prepared report will combine the geoenvironmental and geotechnical information and will be based on field work per GEU's standard operating procedures.
- Allow 6 months for the completion of this report.

### **Procedure 3: Bridge Replacement Projects**

Bridge Replacement Projects will typically send only one request for geotechnical data.

- Step 1.** The request for geotechnical data is made during the Data Collection phase of the project when all of the Environmental Input Requests are submitted.
- Step 2.** Fill out the [Geotechnical Request Form](#) and prepare any mapping. Mapping to send includes, but is not limited to:
  - Vicinity Map with project limits
  - Aerial photography with project study area limits shown.
- Step 3.** Submit all of the requests for projects with upcoming scoping meetings together, using one cover letter, electronically to the State Geotechnical Engineer. Indicate the location of any electronic mapping on the request. Additionally, send 2 hard copies of any mapping.
- Step 4.** The prepared report will combine the geoenvironmental and geotechnical information and will be based on field work per GEU's standard operating procedures.
- Step 5.** Allow 12 months for the completion of all reports in the yearly batch request. Allow 6 months for the completion of reports requested individually.

### ***Background***

Requesting data from the Geotechnical Engineering Unit is a process by which to identify important Geoenvironmental and Geotechnical issues that could impact the project monetarily, create scheduling conflicts (due to delays), or create unacceptable liability issues for NCDOT. The Geoenvironmental issues typically originate from contaminated properties (landfills, Super Fund sites, Hazardous Waste sites, UST sites, AST sites, etc.), while the Geotechnical issues can arise from rock cuts, hot rock, soft soils and high groundwater.

The number of reports needed from the Geotechnical Engineering Unit during the planning process depends in the type of project (new location, widening, etc). All reports aim to identify major Geoenvironmental or Geotechnical issues at the earliest possible stage of planning so they can be avoided, or have plenty of time to address them if avoidance is not possible.

### ***Policy, Regulatory, and Legal Requirements***

#### Federal Regulatory

Atomic Energy Act (AEA)

Clean Water Act (CWA)

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, or Superfund)

Emergency Planning and Community Right-to-Know Act (EPCRA)

Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

Federal Water Pollution Control Amendments

Marine Protection, Research, and Sanctuaries Act (MPRSA, also known as the Ocean Dumping Act)

National Environmental Policy Act (NEPA)

Occupational Safety and Health (OSHA)

Ocean Dumping Act  
Pollution Prevention Act (PPA)  
Resource Conservation and Recovery Act (RCRA)  
Safe Drinking Water Act (SDWA)  
Superfund  
Superfund Amendments and Reauthorization Act (SARA)  
Toxic Substances Control Act (TSCA)

### State Regulatory

State Environmental Policy Act for North Carolina (SEPA)  
CAMA  
N.C. Administrative Code Title 15 A

## **Warnings and Precautions**

Early identification of potential GeoEnvironmental and Geotechnical issues in the planning phase of a project will aid in evaluating the various study alternatives. Requests not submitted in a timely manner may not be able to be completed by the needed due date. Additionally, neglecting to obtain GeoEnvironmental Data could cause significant project delays if problems are identified out in the field after the project is under construction. Therefore, it is imperative that the PPE request input from the Geotechnical Unit throughout the planning process.

## **Resources and Tools**

[Scoping Process for R, U, and I Projects](#)  
[Geotechnical Request Form](#)  
[Mapping Criteria](#)

## **Contacts**

- For suggestions to change this procedure contact: Karen Capps, 919-715-5505
- For questions about performing this procedure contact: Eugene Tarascio, 919-733-7844

## **User Access**

- Restricted NCDOT, FHWA, MPO, RPO, Consultants, etc.

## **Flowchart**

- None

