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CHAPTER 2
PROJECT COORDINATION PROCESS

2.1 INTRODUCTION

The Geotechnical Design Squads (GDSs) are located within the Regional Production Groups (RPGs). As indicated in Chapter 1, the RPGs consist of program management, road, bridge, hydraulic and utilities engineering in addition to the GDS. By placing the GDS with the other units within the RPG, project coordination is closer with an overall reduction in the lag time between project initiation and project completion and improves communication between the various design elements of a project.

2.2 PROJECT INITIATION

Geotechnical projects are initiated upon receipt of the request for surveys and subsurface utilities engineering (SUE). The request for surveys and SUE is typically received from either the Road Design Group or the Design Manager of the RPG. Upon receipt of the initiation documentation, the GDS will gather existing information from the project to include existing soils information, existing road and bridge plans and any preliminary plans depicting the proposed project. After collecting and reviewing this information, the GDS will schedule a Geoscoping trip to document site conditions and fill out a GDF 000 (see Appendix A) either during or immediately after the Geoscoping. During project initiation the Program Manager should provide information concerning whether a project will be Fast Track or Normal Track (see Figure 2-1). Fast Track projects will follow the coordination process depicted in Figure 2-2 and Normal Track projects will follow the coordination process depicted in Figure 2-3.

2.3 FAST TRACK PROJECTS

Fast Track projects are typically those projects that have limited or no environmental impacts, require no additional Right-of-Way, have relatively simple structures, and are placed on the same vertical and horizontal alignment as the existing bridge. These types of projects do not have surveys or hydraulic engineering analysis performed. Because survey data is typically not be available all references to depth should be from the existing bridge deck. Elevations are not be used in Fast Track projects. The geotechnical and structural designers are required to make a best estimate on the amount of scour anticipated at the bridge location. This estimate of scour should be based on the subsurface conditions encountered at the bridge site. Unlike a Normal Track, the preparation of a preliminary geotechnical exploration and report is not performed. Instead the GDS will issue a geotechnical advisory that contains the same information as the preliminary geotechnical report, except that the advisory will be based on available soils information from the general area, not the specific project location, unless available. Figure 2-2 provides the project coordination process that will be used for Fast Track projects. All borings should be performed within the existing SCDOT Right-of-Way and should not require the use of difficult access equipment to explore the site.
The GDS will receive layout plans from the Program Manager prior to commencing field work on the project. The Structures Design Group will provide anticipated loads for the proposed structure. The GDS will prepare a RGER and a BGER for the project. The reports will be provided to the respective Design Groups. Recommendations contained in the report will be incorporated into the project plans. In addition, the GDS will provide notes to be included on both the road and bridge plans. The GDS will review final bridge and road plans to assure that geotechnical design data were incorporated correctly in the plans. If required, the GDS will prepare Special Provisions in coordination with PCS/GDS.

2.4 NORMAL TRACK PROJECTS

As indicated above, the Program Manager will decide whether a project will be Normal or Fast Track. A Normal Track project will follow the coordination process depicted in Figure 2-3. Prior to initiating the preliminary geotechnical exploration, the GDS will compile available geotechnical information from the general area. The information should include, but not be limited to, existing subsurface explorations, pile load test data (static or dynamic) or pile installation records.

2.4.1 Preliminary Geotechnical Exploration

Upon completion of Geoscoping, the GDS will prepare a request for a Preliminary Geotechnical Investigation in accordance with the guidelines established in Chapter 4 of this Manual (see Figure 2-4). The request will be forwarded to the Geotechnical Materials Engineer of the Office of Materials and Research (OMR). The GDS will receive draft logs from OMR and will select samples for laboratory testing. After the completion of the laboratory testing, the GDS will receive the final soil test boring logs and laboratory testing results. Upon receipt of the final preliminary soil test boring records and laboratory work, the GDS shall prepare a Preliminary Geotechnical Report for both the bridge and road portions of the project. The reports shall be prepared in accordance with Chapter 21 of this Manual. The PGERs shall be forwarded to the appropriate Design Groups. In addition, the results of grain-size testing shall be forwarded to the Hydraulic Engineering Group for use in hydraulic design. The preliminary geotechnical exploration and preliminary geotechnical reports should be issued prior to the Design Field Review (DFR).

2.4.2 Right-of-Way Access Permission

Immediately prior to the DFR, the GDS will initiate the Right-of-Way (ROW) access permission process (see Figure 2-5), where permission will be obtained from adjacent landowners to access their property for the purpose of performing geotechnical explorations within the proposed new SCDOT Right-of-Way. If permission is obtained, then the GDS will prepare the final geotechnical exploration request and proceed as discussed below. If permission is denied, the GDS will develop a delay plan and discuss the plan with the Program Manager (see Figure 2-6). If the plan is acceptable, the GDS will continue into the final geotechnical exploration.
2.4.3 Final Geotechnical Exploration

After the completion of the DFR and receipt of the revised DFR plans, if required, the GDS will prepare a Final Geotechnical Investigation request in accordance with the guidelines established in Chapter 4 of this Manual. (See Figures 2-3 and 2-7). This request will be forwarded to OMR, Geotechnical Materials Engineer. The GDS will receive draft logs from OMR and will select samples for laboratory testing. After the completion of the laboratory testing, the GDS will receive the final soil test boring logs and laboratory testing results. The GDS will forward to the Hydraulic Engineering Group any additional subsurface information that has been collected during the final geotechnical exploration that may affect hydraulic design. The GDS will initiate the final geotechnical design upon receipt of the final soil boring logs. Figure 2-8 depicts the Final Geotechnical Design procedure.

The GDS will compile all geotechnical information for the project (existing, preliminary and final) for use in the final geotechnical design. The GDS will receive from the bridge and road squad final layouts for all structures and the bridge loading information. The GDS will prepare final bridge (BGER) and road (RGER) geotechnical reports in accordance with Chapter 21 of this Manual. In addition, the GDS will prepare Special Provisions that are required for the project. These Special Provisions will be prepared in coordination with the PCS/GDS. The GDS will review the final plans and specifications to assure that the geotechnical designs have been properly incorporated into the project design.
Geotechnical Project Coordination

Figure 2-1, Project Initiation Process
Figure 2-2, Fast Track Geotechnical Project Coordination
Normal Track Geotechnical Project Coordination

1. GDS Receives Preliminary DFR Plans
2. DFR Plan Preparation
3. GDS Initiates Preliminary Geotechnical Investigation
4. GDS Compiles Available Geotechnical Information & Conducts Geoscope Trip
5. GDS Receives Preliminary DFR Plans
6. GDS Issues Preliminary Geotechnical Report
7. Revise DFR Plans? Yes/No
8. Project Development Team Reviews DFR Comments
9. GDS Initiates Final Geotechnical Investigation
10. Is Additional Geotechnical Investigation Required? Yes/No
11. GDS Initiates Final Geotechnical Design
12. GDS Initiates ROW Access Permission Delay Plan
13. GDS Initiates ROW Access Permission
14. Have ROW Access Permissions Been Obtained? Yes/No
15. GDS Initiates Final Geotechnical Investigation
16. Contact Documents
17. Plans Complete

Figure 2-3. Normal Track Geotechnical Project Coordination
Figure 2-4, Preliminary Geotechnical Investigation
Right-of-Way (ROW) Access Permission

ROW Contacts Property Owners For ROW Access Permission

GDS Transmits ROW Access Permission Request and Preliminary DFR plans to ROW

GDS Marks Proposed Geotechnical Boring Locations On Preliminary ROW DFR Plan Sheets

ROW Updates GDS on Permission Status

GDS Updates GDS on Permission Status

Have ROW Access Permissions Been Obtained?

GDS Initiates ROW Access Permission Delay Plan

Yes

GDS Initiates Final Geotechnical Investigation

No

Figure 2-5, Right-of-Way Access Permission
Figure 2-6, Right-of-Way Access Permission Delay Plan

1. GDS Initiates Final Geotechnical Investigation
   - Yes
   - No

2. Action Plan Accepted?
   - Yes: Final Geotechnical Investigation
   - No: GDS Contacts Project Manager

3. GDS Contacts Project Manager

4. GDS Develops Alternate Action Plan

5. GDS Initiates ROW Access Permission Delay Plan
Final Geotechnical Investigation

- GDS Initiates Final Geotechnical Investigation
- GDS Requests Research & Materials Lab To Perform Final Geotechnical Investigation
- GDS Receives Draft Soil Test Boring Logs
- GDS Requests Soil Test Boring Logs and Requests Laboratory Testing
- GDS Reviews Soil Test Boring Logs and Requests Laboratory Testing
- GDS Initiates Final Geotechnical Design
- GDS Transmits Geotechnical Information To Hydraulic Engineering (As Required)
- GDS Receives Completed Soil Test Boring Logs and Laboratory Data
- GDS Receives Draft Soil Test Boring Logs

Figure 2-7, Final Geotechnical Investigation
GDS Initiates

Final Geotechnical Design

GDS Prepares Final Geotechnical Report and Specifications

GDS Issues Geotechnical Report (RGER)

Bridge Plans Prepared

GDS Issues Special Provisions

Bridge Geotechnical Report (BGER)

Road Plans Prepared

GDS Compiles Geotechnical Data (Existing, Preliminary, Final)

Contract Documents

Planned Complete

GDS Reviews Final Plans

Figure 2-8, Final Geotechnical Design