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## MEMORANDUM

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**TO:** All OEC Project Managers  
**FROM:** Director of Engineering, James Harkness, P.E., PTOE  
**SUBJECT:** Geotechnical Information Guideline  
**DATE:** July 23, 2020

A handwritten signature in black ink, appearing to read "James Harkness", is written over the "FROM:" line of the memorandum.

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Purpose:

The purpose of the memorandum is to provide a standardized approach regarding the gathering and use of geotechnical information.

Background:

MDTA has used a variety of approaches in the past related to how geotechnical data is gathered, analyzed, and disseminated. This has led to certain instances where potentially inappropriate information, such as geotechnical analysis and recommendations, has been included in contract documents which could lead to claims against MDTA during construction.

New Process:

MDTA will follow all applicable MDOT SHA geotechnical standards and specifications whenever possible, relevant, and practical.

In addition, only relevant geotechnical data and test results shall be presented in the contract documents (typically on the Plans), and the contract documents shall not include interpretation, analysis, baselines, and recommendations of the data and test results. Relevant historical records (as-builts, test drives, etc.) shall be provided as reference information, when available. Full geotechnical reports should not typically be included with the contract documents. When necessary, geotechnical reports that have had redactions of sections dealing with data interpretation, analysis, baselines, and recommendations (i.e. containing factual information and data only) may be included. Any deviations from this approach must be approved by the Director of Engineering or the Director of Project Development.

Reference Materials:

The following is a list of pertinent reference materials from MDOT SHA related to geotechnical testing and reporting, including a brief summary of relevant topics covered in each:

- **Office of Materials and Technology's Standard Specifications for Subsurface Explorations**

[www.roads.maryland.gov/OMT/subsurface.pdf](http://www.roads.maryland.gov/OMT/subsurface.pdf)

Includes Technical Specifications for geotechnical contractor related to borings and various other geotechnical testing, locations and samples, records and logs, and preparation of reports and record drawings

- **Office of Materials and Technology's Pavement and Geotech Design Guide (4/27/18)**

[www.roads.maryland.gov/OMT/pdguide0718.pdf](http://www.roads.maryland.gov/OMT/pdguide0718.pdf)

Includes guidance for:

Testing and Data Collection

- 3.08 Requests for Geotechnical Field Work for various types of projects (highway, SWM, structures) includes types of tests to request, and information needed for each type of request (number of borings, boring locations, spacing, depths, etc.)

- 3.09 Requests for Lab Work details procedures for requesting and testing of soil including classification, compaction, index tests, resilient modulus, strength, consolidation, corrosivity, permeability, and CBR tests.

Analysis Procedures

- 5.03 Processing Boring/Laboratory Data provides guidance for how soils are to be classified, and the presentation of soil and boring information using gINT software for all projects, and the generation of BLOG's for projects involving structures. Also notes that boring information should be on Plans versus the IFB and that environmental soil/water test results should be tabulated in Excel or Word, and included in the Contract Documents when pertinent.

Geotechnical Design

- Provides procedures for the design of earthwork, slopes, embankments, subgrades, retaining walls, stormwater management, miscellaneous (USTs, geotextiles, etc.), and subsurface drainage.

Deliverables and Report

- Geotechnical Data Analysis includes QA/QC procedures of data, and requirements for the Advanced and the Final Geotechnical Report including reporting of soil, moisture, and rock conditions, special areas and treatment, etc. Also includes guidance for referencing specifications and the development of Special Provisions for various pavement and geotechnical issues.

- **Office of Structure's Structural Design Guidance - Design Section**

[www.roads.maryland.gov/OBD/GPM-OOS-01-Design.pdf](http://www.roads.maryland.gov/OBD/GPM-OOS-01-Design.pdf)

P-79-17(4) Foundation Evaluations; Includes:

- Boring requirements for various structure types
- Evaluation of foundation types
- Foundation Review submittal requirements including type of foundation, approach fill considerations, and construction considerations (water table, adjacent structure concerns, pile driving difficulties, excavation control, etc.).

- **Office of Structure's Guidelines and Procedures Memorandums - Plan Development Section**

[www.roads.maryland.gov/OBD/GPM-OOS-02-Plans.pdf](http://www.roads.maryland.gov/OBD/GPM-OOS-02-Plans.pdf)

P-75-3(4) Boring and Test Drives; How to show borings on Plans

P-93-35(4) Documenting Foundation Information for Structures with Pile or Drilled Shaft Foundations; How to organize plans to ensure as-built records are collected