

Missouri Department of Transportation Job Description

Job Title: Geotechnical Specialist

Title Code: R05824

Salary Grade: 7

Exemption Status: Non-Exempt

Supervisory Responsibilities: None

District/Division: Central or District Offices – Construction and Materials

Effective Date: 06-01-2025

Replaces (Effective Date): 11-01-2023

General Summary

The geotechnical specialist plans and executes geotechnical and possible environmental investigations for structures. Responsibilities are performed under moderate supervision.

Minimum/Required Qualifications

- Bachelor's Degree in Civil Engineering (with Geotechnical emphasis), Geological Engineering, or Geology from an ABET-accredited college or university curriculum.
- OSHA 10-Hour Certification required within 90 days.
- Successful completion of a range of motion examination and a medical-physical examination.

Special Working Conditions/Job Characteristics

- Job may require regular, statewide, overnight travel.
- Job requires heavy physical exertion and effort.
- Job requires exposure to moderately adverse and undesirable environmental conditions.
- Job may require operation of vehicles to plow snow and spread ice control materials.
- A postsecondary degree is the best measure to ensure candidates possess required engineering knowledge, including in applied physics and mathematics, drafting, engineering processes and procedures, project management, industry ethical standards, and analyzing and modeling data.

Examples of Work

1. Provides technical support for the drilling crews conducting geotechnical investigations for structures and roadways; develops and executes a drilling plan for geotechnical and possible environmental investigations.
2. Collects and prepares soil samples for testing in the central laboratory; performs field soil and rock tests on samples retrieved.
3. Plans and prepares for drilling activities such as requesting traffic control for traffic lane access, confirming the clearing of underground utilities, and confirming property owner's permission to access property.
4. Collects, evaluates, organizes, and edits field and laboratory test results for geotechnical reports of highway structures or environmental investigations.
5. Writes reports and makes recommendations after completing investigations; may assist in the review and analysis of the test data.
6. Assists in geotechnical investigations for future job sites and proposed roadways.
7. Performs global stability analysis (slope stability) using data obtained from soil tests.
8. Performs other responsibilities as required or assigned.