

Missouri Department of Transportation Job Description

Job Title: Pavement Engineer

Title Code: R05446

Salary Grade: 11

Exemption Status: Exempt

Supervisory Responsibilities: None

District/Division: Central Office – Construction and Materials

Effective Date: 02-01-2025

Replaces (Effective Date): 07-01-2022

General Summary

The pavement engineer designs new pavements, conducts forensic analysis of pavement failures and develops repair solutions, examines and tests pavements to develop preventive maintenance or rehabilitation strategies, and updates and develops pavement standards and specifications. Responsibilities are performed under general supervision.

Minimum/Required Qualifications

- Bachelor's degree in Engineering from an ABET-accredited college or university curriculum.
- Licensed as a Professional Engineer in the State of Missouri.
- Six years of progressive experience in engineering positions, including demonstrated ability to manage teams and multiple projects, and focus on several functional areas of engineering positions.
- OSHA 10-Hour Certification required within 90 days.

Special Working Conditions/Job Characteristics

- Job requires regular, statewide, overnight travel.
- Job requires exposure to moderately adverse and undesirable environmental conditions.
- This title requires advanced accreditation or licensure which is only available to holders of specific postsecondary degrees.

Examples of Work

1. Designs new pavements using mechanistic-empirical modeling tools.
2. Analyzes substandard pavements and develops solutions for different design life scenarios; recommends preventive maintenance treatments.
3. Calibrates the department's mechanistic-empirical pavement design guide model through field surveys and materials testing.
4. Analyzes early pavement failures to determine cause and develops corrective measures.
5. Interprets pavement design and construction practices for district personnel.
6. Develops and updates pavement policy guidelines and performance specifications for pavement designs and materials.
7. Reviews all construction contracts for compliance with the department's pavement policies.
8. Manages the design and construction of experimental pavement sections; monitors and analyzes performance data from experimental pavement sections and reports findings, conclusions and recommendations.
9. Gives pavement-related presentations at state and national conferences.
10. Performs other responsibilities as required or assigned.