

# Missouri Department of Transportation

Code: R05056

Title: Senior Structural Engineer

Exemption Status: Exempt

Grade: 11

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## Job Description

Effective Date 07-01-2022

Replaces  
(Effective Date) 03-01-2021

**General Summary** The senior structural engineer provides structural and hydraulic professional engineering services for development of the scope and budget for structures in statewide transportation improvement program (STIP) projects and for production of structural plans and specifications for the STIP that meet the project scope and budget and provide safety to the traveling public; consults with districts and other divisions to solve structural problems. 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.  
Five years of post graduate experience in civil engineering with a demonstrated proficiency in structural design or engineering applications. An advanced degree in civil engineering with an emphasis in structural design or engineering applications may be substituted for a maximum of two years of experience.

**Supervisory Responsibilities** Lead Worker Only

**Location** Central Office - Bridge

**Special Working Conditions/Job Characteristics** Job requires occasional, statewide travel.

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## Examples of Work

- (1) Produces independent structural design calculations for structures in the STIP, including new bridges, bridge rehabilitations, staged construction, retaining walls, and culverts.
- (2) Produces structural design layout detailing scope of work and showing the location, structure type, and basic geometry of a structure for new bridges, culverts, and retaining walls and for rehabilitation of existing structures.
- (3) Produces construction plans by checking plan design and detailing performed by others for conformance to standards, procedures, accepted practices, and for computational errors.
- (4) Performs quality control of and develops revisions to internal manuals, specifications, guidelines, and computer programs.

- (5) Reviews in-house and consultant structural plans for conformance to department practice, including writing special provisions and preparing final cost and working days estimate.
- (6) Serves as an expert structural engineering resource to other divisions and department teams, committees, and task forces.
- (7) Signs and seals structural plans and/or related documents as necessary.
- (8) Performs lead worker responsibilities, which may include providing general instruction, assigning and reviewing work, coaching and training, providing guidance and instruction in the proper and most efficient methods of accomplishing tasks, and providing input to the direct supervisor on staffing decisions and performance management.
- (9) Performs other responsibilities as required or assigned.

**The Missouri Department of Transportation promotes an equal opportunity workplace that includes reasonable accommodation of otherwise disabled applicants and employees. Please see your manager should you have any questions about this policy or these job duties.**