

Who we are:

Transportation is so basic that many of us overlook its overwhelming importance in our daily lives. Practically everything used in our homes, offices, or schools across Tennessee – from furniture to food items to clothing – requires a large and complex transportation network. The Tennessee Department of Transportation provides citizens of Tennessee and travelers with one of the best transportation systems in the country. TDOT is a multimodal agency with responsibilities in building and maintaining roads, aviation, public transit, waterways, railroads, cycling and walking. Our involvement ranges from airport improvements to funding transit buses to planning for river ports. The Department of Transportation has approximately 3,500 employees with four statewide region facilities in Knoxville, Chattanooga, Nashville, and Jackson.



Senior Design Quality Transportation Engineer

Engineering Division – Production Support Section, Design Quality
Nashville, TN
\$104,292 annually

Job Overview

The Senior Design Quality Transportation Engineer will direct TDOT's efforts in the development and implementation of standard processes and procedures to establish consistency in quality control and quality assurance performed by Preconstruction and Regional Quality Teams for all phases of the Project Delivery Network (PDN) in accordance with the project's scope, budget, and risk. These projects will range in complexity and risk from simple to highly complex. The Quality role requires collaboration with multiple TDOT Divisions, project team members, contractors, consultants, and other external stakeholders.

The Senior Design Quality Transportation Engineer ensures Department policies, technical guidance, procedures, software, and systems are current and accurate for incorporation into the project delivery process and implements the Quality Assurance Program as part of the State Engineering Divisions' activities to reduce errors, construction delays, and contractor claims. This position must effectively articulate quality concepts through training, mentoring, and collaborating as part of a matrix organization. The Senior Design Quality Transportation Engineer assists with monitoring and managing the scope, schedule, and budgets to make the required adjustments as necessary to ensure that the work completed is in alignment with the Department's Asset Management and Strategic goals.

Essential Job Responsibilities

Provide technical expertise related to transportation design elements to support Project Teams as part of a matrix organization; preserve the project vision in alignment with Asset Management objectives and quality program requirements; define critical goals and intended outcomes for the quality in coordination with the Project Manager; confirm design strategies; evaluate innovative concepts; proactively assess risk factors and assign quality team members; and, for Project Teams associated with Alternative Delivery Contracts, evaluate the cause and effect of implementing Alternative Technical Concepts related to the Request for Proposal (RFPs), project quality, and life-cycle implications. Optimize the Project Team's ability to mitigate risk and address unanticipated challenges while meeting TDOT's quality requirements.

Confirm integration of Quality Management into all deliverables in compliance with Asset Management's business objectives and alignment with the PDN. Focus on reducing plan errors, right-of-way delays, construction delays, and contractor claims;

assist Project Teams by providing reviews as part of TDOT's Quality Assurance Program. Routinely collaborate with TDOT Divisions to identify and document knowledge on industry best practices to avoid past errors and ensure TDOT project successes. Brief leadership on metrics associated with quality program reviews. Assist with modifications to applicable policies, procedures, design quality standards and guidance, training programs, specifications, and special provisions.

Assist in the development of the quality aspects of a consultant acquisition plan and assist in the oversight of external partners. Serve on selection committees for professional engineering services as part of the Brooks Act; assist with quality provisions during RFP development, attend project-specific marketing meetings, assist with determining scoring criteria, assist with project information sessions, when applicable, serve as a scorer as part of the consultant acquisition process, and attend de-briefs for consultants where usable quality feedback must be provided.

Remain current on revisions to design codes, standards, and guidelines related to transportation design components, including trends and technologies; review the design and analysis of design components for complex projects; and assist with Risk Assessments.

Provide exceptional customer service to both internal and external customers; mentor and provide technical guidance; coordinate with other disciplines as part of a matrix organization, exercise effective listening skills, provide prompt responses, maintain complete and accurate documentation, and communicate effectively.

Assist in the development of training that addresses TDOT objectives, risk management, technical design elements, and emerging technologies related to quality in transportation for the purpose of improving team performance, creating a stronger understanding of the transportation industry, inspiring new ideas, and developing skills.

Assist in ensuring Production Design Quality Support deliverables are consistent, predictable, and repeatable to provide consistently high levels of achievement, mitigation of risk, and an established track record of success.

Qualifications

- Bachelor's Degree in Civil Engineering
- Licensed Professional Engineer (PE)
- 6 years of demonstrated competency in developing and/or constructing transportation projects

Ideal Candidate

The Senior Design Quality Transportation Engineer demonstrates a deep understanding of engineering principles, standards, and regulations related to transportation infrastructure. They possess strong analytical skills, attention to detail, and the ability to assess complex design documents and identify potential issues or deficiencies. The Senior Design Quality Transportation Engineer is committed to quality, has excellent communication and interpersonal skills, and can effectively explain complex concepts to and collaborate with cross-functional teams and stakeholders. The Senior Design Quality Transportation Engineer is passionate about maintaining the highest standards of quality and innovation.