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. TDOT Aeronautics is located near the John C. Tune Airport in Nashville, TN.

Design Quality Transportation Engineering Specialist 3 & 4
Region Preconstruction – Roadway Design Section, Design Quality
$80,784 - $88,860 annually

Job Overview

The Design Quality Transportation Engineering Specialist 3 and 4 implements a process-oriented approach to preventing errors, minimizing variability of project outcomes, and ensuring alignment with the strategic goals established by the Asset Management Division for each project. This position performs Quality Assurance at all quality checkpoints in alignment with the Project Delivery Network (PDN) and the Quality Manual to provide for the constructability, completeness, and conformity of project deliverables.

The Design Transportation Quality Engineering Specialist 3 and 4 continuously evaluates performance indicators to proactively implement acquired knowledge in support of TDOT's project delivery process. This position must effectively articulate quality management concepts through training, mentoring, and collaborating as part of a matrix organization.

Essential Job Responsibilities of the Transportation Engineering Specialist 3 and 4 include:

Review a complete PS&E Submittal package and upload to the appropriate ProjectWise folders, letting documents match turn in and approval from the Region Transportation Engineer, verification that comment resolution for all comments has been checked during Quality Control and all PS&E Documents are complete.

Perform Quality Assurance by ensuring Quality Control reviews have taken place; performing high-level, fatal flaw reviews to ensure project deliverables were developed using the appropriate standards, specifications, and policies; and providing reviews that address constructability concerns, scope creep, estimate changes; perform spot checks on those items that are commonly missed or overlooked. Collaborate with Project Management to verify that an independent utility cost estimate review occurred by the Region Utility Section, including a comparison of those estimates submitted by utility companies to provide for greater reliability in cost estimates, a reduction in cost overruns, and more efficient project delivery.

Strengthen Project Teams through coordination with technical disciplines regarding relevant acquired knowledge and how it is implemented. Effectively apply the Quality Management Guidelines by performing interdisciplinary reviews on Project Deliverables at all quality checkpoints in alignment with PDN to ensure a coordinated design at each stage of the PDN. Coordinate with the Project Manager to ensure all project commitments are met.

Provide exceptional customer service to project stakeholders by facilitating cross-functional collaboration and leveraging the value of data to implement acquired knowledge in support of Project Teams. Ensure the conveyance of consistent deliverables for industry use in constructing and maintaining TDOT's assets. Exercise effective listening skills, provide prompt responses, and communicate effectively. Remove barriers that prevent the efficient sharing of information.

Effectively capture acquired knowledge as part of an ongoing, systematic approach to identifying areas where improvements may be needed and areas for which successes can be repeated and optimized, including collaboration with the Region Transportation Engineer to review bids to determine bidding irregularities that could be indicative of considerations needed for the development of future cost estimates, monitor Change Orders, determining the cause of cost overruns, and document the cause and effect of revisions.

Remain current on TDOT performance objectives, State of Tennessee laws related to transportation, and applicable Federal regulations that govern project deliverables. Participate in peer reviews to acquire national best practices that optimize design transportation designs, drive uniformity, and enhance safety.

Implement a systematic approach to ensure effective and comprehensive collaboration with State Design, State Construction, State Maintenance, Region Utilities, Region Traffic Operations, and Asset Management for tracking lessons learned and implementing solutions to proactively prevent future concerns. Mitigate potential areas of risk for Project Teams throughout the project delivery process and emphasize those areas in which the majority of contractor claims occur in collaboration with the Region Transportation Engineer. Monitor the effectiveness of implemented risk mitigation strategies and provide additional recommendations, as needed.

Generate standardized reports as a tool in establishing accountability and determining the Region's progress in accomplishing the successful implementation of the Department's Quality Program, including all logs associated with comment resolution and the identification of deficient QC documentation. Ensure preferential comments that are not supported by governing standards are eliminated.

Additional Job Responsibilities for the Transportation Engineering Specialist 4 include:

Coordinate with the TDOT Technical Training Director and assist in the development and presentation of training that addresses design elements, including acquired knowledge, risk management, TDOT performance metrics, governing rules and processes, reporting procedures, and emerging technologies related to designs for the purpose of improving team performance, creating a stronger understanding of the design elements, inspiring new ideas, and developing skills.

Assist Project Teams by evaluating complex designs to determine potential incompatibilities with other technical discipline requirements. Break down complex issues, including the identification of causes and their cause-and-effect relationships.

Perform quality assurance reviews for those projects having the highest degree of risk to the Department, focusing on proactively addressing plan errors and mitigating constructability issues. Provide recommendations, when applicable, in response to identified risks related to the proposed design. Verify the proposed design complies with the goals of Asset Management, the Scope of Work, applicable TDOT standards, federal and state policies and guidelines, and all other project-specific requirements.

Collaborate with HQ and the Region Transportation Engineer on potential adjustments to processes and/or design standards, updates to training, or implementation of emerging technologies to mitigate future risk. Document and provide accessibility to TDOT staff, creating a culture of continuous improvement.

Qualifications

The Transportation Engineering Specialist 1 and 2 are part of the Graduate Transportation Engineer (GTE) Program.

Transportation Engineering Specialist 3:

- Bachelor's Degree in Engineering
- 2 years of demonstrated competency in developing quality programs for transportation projects

OR

- Master's Degree in Engineering
- 1 years of demonstrated competency in developing quality programs for transportation projects

Transportation Engineering Specialist 4:

- Bachelor's Degree in Engineering
- 3 years of demonstrated competency in developing quality programs for transportation projects

OR

- Master's Degree in Engineering
- 2 years of demonstrated competency in developing quality programs for transportation projects

Ideal Candidate

The Design Quality Transportation Engineering Specialist 3 and 4 is a detail-oriented professional committed to improving processes and ensuring high-quality project outcomes. They proactively identify and address inefficiencies, promote consistency, and uphold quality standards. With strong communication and collaboration skills, they effectively train, mentor, and guide teams within a matrix organization. The Design Quality Transportation Engineering Specialist 3 & 4 excels at problem-solving, ensuring project deliverables are accurate, complete, and aligned with organizational goals. Their ability to analyze, adapt, and implement best practices makes them a key contributor to successful project execution.