

## 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.



### **Statewide Safety Transportation Engineer** Traffic Design Division – Safety and Work Zone \$118,500 annually

#### **Job Overview**

The Statewide Safety Engineer is a statewide transportation engineer position that will manage all aspects of TDOT's traffic design safety processes and systems as part of a Project Team directly responsible for delivering projects for all phases of the Project Delivery Network (PDN) in accordance with the project's scope, budget, and risk, and the TDOT Strategic Plan. These projects will range in complexity and risk from simple to highly complex. The safety role requires collaboration with multiple TDOT Divisions, project team members, contractors, consultants, and other external stakeholders. It requires critical thinking and engineering judgment to problem-solve and make well-informed decisions that increase the safety, performance, sustainability, and efficient delivery of the Department's transportation system.

The Statewide Safety Transportation Engineer ensures Department policies, technical guidance, procedures, software, and systems related to traffic design safety are current and accurate for incorporation into the project delivery process. This position assists in implementing the Quality Assurance Program as part of the State Traffic Design Division's activities to reduce errors, delays, and contractor claims. This position must effectively articulate technical estimating concepts through training, mentoring, and collaborating as part of a matrix organization. This position focuses on the safety of motorists, pedestrians, bicyclists, individuals with disabilities, and TDOT construction and contractor staff, in addition to prioritizing traffic mobility for construction projects for those projects having the highest complexity. The Statewide Safety Engineer provides design recommendations as part of the Highway Safety Improvement Program and Pedestrian Road Safety Initiatives projects and assists with monitoring and managing the scope, schedule, and budgets of all construction projects and working with the Project Management Division 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**

Serve on Project Teams as part of a matrix organization as the safety Subject Matter Expert (SME) that supports transportation design elements; developing the project vision in alignment with department Asset Management objectives and funding allocation; defining critical safety goals and intended outcomes for the scope, permitting, schedule, budget, and quality in coordination with the Project Manager; applying context-sensitive design strategies; implementing innovative concepts; proactively assessing risk factors; and, for Project Teams associated with Alternative Delivery Contracts, forecasting the cause and effect of implementing Alternative Technical Concepts related to the Request for Proposal (RFPs), project cost, and

construction timing. Optimize the Project Team's ability to mitigate risk and address unanticipated challenges while meeting the project's scope, schedule, and budget.

Participate in the development of safety systems plan for Transportation Systems Management and Operations (TSMO) strategies, including the application of emerging technologies. Attend and facilitate public meetings as a representative of the department, appropriately addressing customer needs and concerns. Assist the Region Traffic Safety Program Engineer with coordinating project production with the Department's Work Program. This includes coordinating with the Region's Work Program Unit so that project schedule and control are efficiently managed. Assist with the development and coordination of the Region's safety work program.

Integrate Quality Management into all deliverables in compliance with Asset Management's business objectives, Manual on Uniform Traffic Control Devices (MUTCD), Standards, policy, procedures and alignment with the PDN with the purpose of 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.

Manage and take ownership of change, articulate your vision for TDOT's traffic design safety activities, communicate effectively, remain transparent, and hold yourself accountable to develop, maintain, and grow safety capabilities, data, software, and systems.

Routinely identify, document, and effectively collaborate with HQ and Asset Management on acquired knowledge that includes maximizing project successes, acknowledging national best practices, and avoiding past errors. Participate in the work zone process improvement team to keep current applicable safety policies, procedures, design standards, specifications, and special provisions.

Assist in the development of Consultant Acquisition Plans (CAP) and oversight of external partners by serving on selection committees for professional engineering services as part of the Brooks Act. Provide support in the development of the Request for Proposal (RFP), attending project-specific marketing meetings, determining scoring criteria, participating in project information sessions, serving as a scorer as part of the consultant acquisition process, and attending de-briefs with consultants. Conduct independent reviews of the engineer's cost estimate at project milestones during pre-construction activities and provide the final cost estimate that encompasses relevant factors related to the scope of a project, the cost of resources, and national and global market trends.

Remain current on national best practices related to the placement of safety within TDOT's Traffic Design Division as it relates to safety improvements and design recommendations; assist with the development of legislation and regulations that seek to increase safety, inspire innovation, and improve mobility for TDOT employees, contractors, and the traveling public; and integrate safety considerations and statutory and regulatory requirements into TDOT's guidance documents, processes, and procedures. Participate in regional/national working groups and training opportunities related to safety initiatives.

Provide exceptional customer service to both internal and external customers, exercising effective listening skills, providing prompt responses, maintaining complete and accurate documentation, coordinating with other disciplines as part of a matrix organization, and communicating effectively.

Assist in the development and delivery of safety training, mentoring, and technical guidance to TDOT and external stakeholders that addresses acquired knowledge, risk management, technical design elements, and emerging technologies related to traffic design safety for the purpose of improving team performance, creating a stronger understanding of the transportation industry, inspiring new ideas, and developing skills. Administer and manage TDOT's estimating program and software.

Assist in ensuring the Safety and Work Zone Section is 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
- 12 years of demonstrated competency in developing and/or constructing transportation projects

**Necessary Special Qualifications**

- Licensed Professional Engineer (PE)

**Ideal Candidate**

The Statewide Safety Transportation Engineer uses their knowledge of safety engineering to take charge of ensuring the safety of the roadway to heart. With a keen eye for safety, they consistently prioritize the well-being of both workers and commuters in every project they undertake. Their strong problem-solving skills allow them to navigate complex safety challenges, ensuring the protection of both workers and the public. They are a dedicated team player and thrive in collaborative work environments to ensure everyone is safe.

**General Work Conditions**

*Yes / No*

- Is this position generally performed in an office environment?
- Will work for this position be frequently performed in a field environment and may sometimes require working in inclement weather, working in a construction site, being exposed to heavy construction equipment, and doing extensive walking?
- Is this position a combination of office and field environment?
- Is an alternative work schedule including work from home eligible for this position? If yes, how many days will it be work from home and how many days in office?  
  - Days from home: up to 2 days
  - Days from office: up to 3 days
- Is this position required to work under exposure to inclement weather and environmental conditions?
- Will this position require travel including overnight?

Physical Requirements	<i>Select the frequency of each physical activity. The activity must be related to the position and consistent with business necessity.</i>			
	None	Occasional (less than 1/3)	Frequent (1/3 to 2/3)	Regular (more than 2/3)
Standing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Walking	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bending	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reaching/stretching overhead	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>Crouching or stooping</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Balancing</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Pushing or pulling</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Repetitive use of hands/arms</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Repetitive use of legs</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Grasping</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Lifting – check the frequency for each weight range below. If the job doesn’t require any lifting activities, check “None” on each line below.</b>				
Up to 20 pounds	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21 - 50 pounds	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
51 – 75 pounds	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Carrying - check the frequency for each weight range below. If the job doesn’t require any carrying activities, check “None” on each line below.</b>				
Up to 20 pounds	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21 - 50 pounds	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
51 - 75 pounds	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Eye/hand coordination</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Speaking</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Hearing</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Seeing (with correction)</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Close vision</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Distance vision</b> - ability to see objects clearly from a distance, usually from 20 feet or more.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Color vision/perception</b> - ability to distinguish colors.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Peripheral vision</b> - what is seen on the side by the eye when looking straight ahead.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Depth perception</b> - ability to judge the distance of objects and the spatial relationship of objects at different distances.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>Position Description Team Members</b>	<i>Provide a list of SMEs who helped develop the position description. Include name and work area.</i>
Andy Barlow	TDOT – Director Traffic Design
Steve Cook	RIC
Mark Geib	RIC