

## 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.



### **Traffic Operations Statewide Transportation Engineer**

Traffic Operations Division

Nashville, TN

\$115,008 annually

#### **Job Overview**

The Traffic Operations Engineer is a Statewide Transportation Engineer position that serves as a subject matter expert in all aspects of TDOT's traffic operations processes and systems. This position will lead efforts to maximize operations across all transportation systems within the state, including access permitting, traffic operations, and work-zone operations. This position will participate in the development of long-range corridor plans, ITS architecture plans, project-specific plan development, and Transportation Systems Management and Operations (TSM&O) analysis, ranging in complexity and risk from simple to highly complex. The Traffic Operations Statewide Transportation Engineer role requires collaboration with multiple TDOT Divisions, project team members, contractors, consultants, and other external stakeholders. The Traffic Operations Statewide Transportation Engineer role requires critical thinking and engineering judgment to problem solve and make well-informed decisions that increase the safety, performance, sustainability, and efficient delivery of TDOT's transportation system.

The Traffic Operations Statewide Transportation Engineer assists in assuring Department policies, technical guidance, procedures, software, and systems related to the Traffic Management Centers, Highway Response and traffic operations are current and accurate for incorporation into system upgrades, project plans and maintenance of traffic operations. This role assists with implementing the Quality Assurance Program as part of the State Traffic Operations Division's activities to reduce errors, delays, and contractor claims. This position will assist the Director of Traffic Operations in the deployment of TSM&O projects in support of larger roadway design projects, encroachments, commercial access requests, traffic operation investigations, and maintenance operation projects. The Traffic Operations Statewide Engineer supports monitoring and managing the scope, schedule, and budgets for all Traffic Operations projects and works with the Project Management Division to make adjustments as necessary to ensure the work completed is in alignment with operational needs and the Department's Asset Management and Strategic goals.

#### **Essential Job Responsibilities**

Serve on Project Teams as part of a matrix organization as the Traffic Operations Subject Matter Expert (SME) in support of traffic operations elements. Assist in the development of project visions in alignment with Asset Management objectives and funding allocation, assist in defining critical goals and intended outcomes for the scope, schedule, budget, and quality in coordination with the Project Manager, and

apply context-sensitive design strategies. Assist with and support the implementation of innovative concepts and proactively assess risk factors for Alternative Delivery Contract projects, forecasting the cause and effect of implementing Alternative Technical Concepts related to the Request for Proposal (RFPs), project cost and coordination with other capital programs, and construction timing.

Assist with integrating Quality Management into all Traffic Operations deliverables in compliance with Asset Management's business objectives and alignment with the PDN for 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.

Lead coordination efforts with State Traffic Operations, Division Directors, Regions, and other department stakeholders to establish an operations budget for traffic operations project/program needs. Align Region operations project needs to establish a 5-year project forecast. Process current year project lettings, ensuring project selection is data-driven and based on benefit/cost, Level of Travel Time Reliability (LOTTR), Travel Time Index (TTI), Levels of Service (LOS), and the ability to be combined with other projects. Ensure Region operations needs are in alignment and complement annual operations project deployment needs, including funding with ITS, Signals, and Safety Programs annual project requests and budgets.

Provide the operational focus when participating with the Traffic Design Division, Regions, and other key stakeholders in the development and implementation of an ITS Strategic Plan. Ensure alignment with the organizational TDOT Strategic Plan and the Transportation Systems Management and Operations (TSMO) Strategic Plan, including the application of emerging technologies, safety, signals, Traffic Management Centers (TMC), congestion/reoccurring management, work zones, Traffic Incident Management (TIM), multi-modal integration, software programs, and other technologies that may impact current and future traffic operations and ITS needs.

Routinely collaborate with HQ and Asset Management to identify and document knowledge on industry best practices to avoid past errors and ensure TDOT project successes. Lead the modifications to all applicable Transportation Operation policies, procedures, 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), attend project-specific marketing meetings, determine scoring criteria, participate in project information sessions, serve as a scorer as part of the consultant acquisition process, and attend 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 revisions to standards and guidelines within TDOT's Traffic Operations Division as it relates to corridor safety and travel time improvements. Assist with the development of legislation and regulations that seek to establish department policies and operations funding to increase safety, inspire innovation, and improve mobility for TDOT employees, contractors, and the traveling public. Integrate safety considerations and statutory and regulatory requirements into TDOT's guidance documents, processes, and procedures. Incorporate a multi-modal approach to all traffic operations concepts and initiatives, including highways, transit, bicycles, pedestrians, freight, aeronautics, and rail.

Provide exceptional customer service to both internal and external customers by 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 implementation of training, mentoring, and technical guidance to TDOT internal and external stakeholders that addresses acquired knowledge, risk management, technical elements, and emerging technologies related to traffic operations elements, software programs, and traffic data repositories for the purpose of improving team performance, creating a stronger understanding of the transportation industry, inspiring new ideas, and developing institutional knowledge and skills. Participate in regional/national working groups and training opportunities related to traffic operations.

### **Qualifications**

- Bachelor's degree in engineering
- Licensed Professional Engineer (PE)
- 12 years of demonstrated competency in a traffic or transportation engineering related field

### **Ideal Candidate**

The Traffic Operations Statewide Transportation Engineer is a skillful problem solver and communicator, ensuring the successful execution of simple and complex projects. The Statewide Traffic Operations Engineer is committed to public safety in every aspect of their work. They are a critical team member who can assist with bridging the gap between technical experts and stakeholders. The Statewide Traffic Operations Engineer is passionate about ensuring the agency's projects increase safety, mobility, and leverage technology to fulfill TDOT's mission.