



TDOT Technical Specialist I, II, or III

AGENCY OVERVIEW AND PROGRAM FOCUS

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 pedestrian facilities. Our involvement ranges from airport improvements to funding transit buses to planning for river ports.

This classification is within the Tennessee Department of Transportation. The responsibilities of TDOT are to plan, develop, preserve, and maintain the state highway system and assist local governments in developing their highway systems. Specific responsibilities include highway data collection; planning; public outreach; program development; environmental field studies, analysis, compliance documentation, and permitting; regulatory agency consultation; scheduling; design; right-of-way acquisition; estimates; aerial surveying; construction; maintenance; traffic engineering; materials; and geological testing.

SUMMARY

As part of TDOT's infrastructure for all modes of transportation, Technical Specialists are responsible for professional transportation planning and public outreach work; collecting and analyzing data and information; developing technical reports, grants, and contracts; and consulting with regulatory agencies. While being actively engaged in the development, analysis, interpretation, and administration of contracts, grants, and programs, technical specialists may also be tasked with financial plan development, compliance reviews, and auditing functions. Employees in this classification series will develop proficiencies such as the use of computers, data analytic tools, highly technical field equipment, materials sampling and testing, technical drawing development, and report writing.

Employees in this classification series are eligible for promotion to the next level in the career path series upon successful mastery of the minimum requirements for progression as specified in the TDOT Technical Specialist Proficiency Program.

GENERAL POSITION DESCRIPTION

TDOT Technical Specialist I

A Technical Specialist I is an entry-level position. A Technical Specialist I will work in a training capacity under the direct supervision of a supervisor. This position will be expected to work in a team setting to learn the required foundational level skills needed to perform assigned duties and to become proficient in the competencies required for promotion to the Technical Specialist II classification.



TDOT Technical Specialist II

A Technical Specialist II is considered an intermediate-level position. The Technical Specialist II will work under the intermittent direct supervision of a supervisor. This position will be expected to work in a team setting with increased responsibility for performing intermediate skill level technical duties and to become proficient in the competencies required for promotion to the Technical Specialist III classification.

TDOT Technical Specialist III

A Technical Specialist III is considered an advanced-level position. The Technical Specialist III will work under the general supervision of a supervisor, who will have the authority for direct oversight in applicable complex decision-making situations. The Technical Specialist III will be expected to work both independently and in a team setting, performing complex skill-level technical duties and becoming proficient in the competencies required for promotion to the Senior Technical Specialist classification. This position may mentor junior staff, with all unusual issues being reported to a supervisory level.

RESPONSIBILITIES

NOTE: The position responsibilities listed are representative of the work performed by positions within the Technical Specialist classification series. The responsibilities listed are not all-inclusive for every position, nor is it expected that all positions will be assigned every responsibility.

The essential duties of a TDOT Technical Specialist I, II, and III include:

- Read, interpret, and apply statutes, regulations, policies, plans, specifications, standards, grant language requirements, contract requirements, and funding applications
- Perform financial reporting and documentation activities to ensure compliance with contract requirements
- Research and perform analysis of data sets and prepare reports on the investigation, assessment, and development of recommendations conducted to solve transportation planning, environmental, modeling, design, construction, and material testing issues
- Use computer software applications and technical field/laboratory equipment to analyze, model, design, and report numeric and technical engineering and financial data sets
- Develop, process, and monitor federal and state funding obligations by funding type for transportation funding projects and programs across TDOT
- Perform geodetic data collection and data analysis for horizontal, vertical, and longitudinal control using conventional survey equipment, drones, lidar, and three-dimensional data analytic software
- Perform field surveys, conduct field sampling and testing, document activities using pictures and videos, identify, measure, and record information, that defines characteristics and components needed to clearly identify issues or potential risks and make recommendations to mitigate these issues/risks

- Analyze, test, and develop recommendations on products including those that are new technologies to determine if they meet Department standards
- Review, process, and ensure compliance with transportation grant applications from local government agencies for projects and programs that qualify for federal and state funding
- Operate light-duty vehicles
- Prepare reports, charts, and graphs used in the presentation of data
- Perform other job responsibilities as assigned

Additional duties for the TDOT Technical Specialist II and III include:

- Coordinate with internal and external customers to identify and resolve issues
- Communicate with external stakeholders, local government agencies, contractors, consulting and regulating agencies, and consultants to address issues involving grants, prequalification, contracts, compliance, and invoice processing
- Negotiate agreements with other governmental agencies, consultants, contractors, and external stakeholders related to resolving impacts for the successful development and implementation of grants, contracts, projects, and programs
- Perform consultant prequalification, selection, invoice processing, and performance assessments
- Work to plan, develop, and assemble transportation infrastructure survey deliverables and supporting documents with the latest CADD computer technology
- Responsible for the completion of applicable project deliverables in the planning, design, and construction phase, and for the identification of issues that might impact critical path work items on complex projects

Additional duties for the TDOT Technical Specialist III include:

- Assist in training, mentoring, and quality control of the work of other employees
- Coordinate with internal and external customers to identify and resolve moderately complex issues
- Provide feedback to Regions, local government partners, consultants, contractors, and legislators on grants, projects and program issues and work to resolve moderately complex issues

QUALIFICATIONS

Education and Experience:

TDOT Technical Specialist I

Bachelor's Degree in a related field of study as may be outlined in the position description

TDOT Technical Specialist II

Bachelor's Degree and 1 year of demonstrated competency in a related field as may be outlined in the position description



TDOT Technical Specialist III

Bachelor's Degree and 2 years of demonstrated competency in a related field as may be outlined in the position description

The Tennessee Department of Transportation reserves the sole right in determining the level of position based on the applicant's work experience, education, skill level, and all other appropriate factors, including business needs. Within 6 months of hire, employees must demonstrate successful mastery of corresponding work competencies and skill blocks of the Technical Specialist Competency Program for the level of worker for which they were hired. If skills and competencies are not met during that period, the employee can be demoted to the level of worker for which he/she is qualified.

Necessary Special Qualifications for TDOT Technical Specialist I, II, III

Some positions in these classifications may have additional requirements such as:

- Professional licenses and/or certifications
- Possess and maintain a Class D driver's license valid for use in operating vehicles in the State of Tennessee

Any necessary special qualifications will be denoted in the position description.

Knowledge, Skills, Abilities, and Competencies

The required KSACs for TDOT Technical Specialist I, II and III include:

- Knowledge of transportation engineering principles
- Knowledge of transportation finance principles
- Knowledge of contract development principles and applications
- Knowledge of technical report writing
- Ability to communicate effectively, while interacting with internal and external stakeholders in a professional and courteous manner
- Ability to manage time to ensure assignments are completed
- Ability to use critical thinking to problem solve and make informed decisions
- Ability to learn technical concepts and apply those concepts to the position responsibilities
- Ability to follow verbal and written instructions
- Ability to conduct work with precision and a high degree of accuracy
- Ability to read and interpret project plans

Additional KSACs for TDOT Technical Specialist II and III include:

- Skilled in the application of engineering principles
- Skilled in the application of transportation finance principles
- Skilled in the application of state and federal regulations to transportation projects
- Skilled in technical report writing
- Skilled in the development of contract principles and applications
- Ability to work in project teams



- Ability to maintain effective work relationships with individuals and groups, both internal and external
- Ability to manage time and prioritize work items to ensure project assignments are completed

Additional KSACs for the TDOT Technical Specialist III include:

- Ability to resolve conflicts, coach, and mentor others, and support a culture of accountability, collaboration, and accomplishment
- Ability to analyze a process and offer actionable feedback for use in improving the effectiveness, quality, and efficiency of the existing process

Conditions of Employment

- Incorporating overtime, weekends, and night shifts into their schedules as work schedules dictate
- Extended durations outdoors in extreme weather conditions
- Working in and around construction and vehicular traffic
- Walking on uneven terrain
- Climbing ladders and construction scaffolding
- Carrying equipment and samples in excess of 25 pounds
- Driving long distances as required to perform daily duties
- Performing work in which personal protective equipment will be required to be worn
- Sitting for extended periods while driving or working on computers
- Standing for extended periods while working outdoors or in a laboratory setting

Where are these positions used:

State Traffic – Modeling and Forecasting

State ROW – ODA/Junkyard

State Asset Management – Data Systems

State Asset Management – Performance Management

Professional Services

Program Development

Project Management – Data Governance

M&T – Geology

State Traffic Ops – Production Support

State Health and Safety

Environment – HQ and Region

Potential areas that may use this classification series:

Local Programs

Planning

Multi-modal



Region Utilities

Region Geodetics