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.

Region Geodetics Engineering Technician 4
Region Preconstruction – Geodetics Section
$59,628 annually

Job Overview

The Region Geodetics Engineering Technician 4 plays a crucial role in executing geodetic surveying operations in the field by organizing, assisting with coordinating and guiding survey crews in the field. This position is an expert in field and office-based data collection, staking and other technical geodetics tasks. This position assists with identifying potential geodetic project challenges, minimizing variability in geodetic deliverables, and ensuring the sustainability of the Department's Work Program.

The Region Geodetics Engineering Technician 4 assists the Region Geodetics Foreman to ensure Department policies, technical guidance, and geodetic policies and procedures are followed when conducting field work, data analysis, creating geodetic datasets and staked locations. This position must effectively articulate geodetic technical concepts through training, mentoring, and collaborating as part of a matrix organization.

Essential Job Responsibilities

Assist with supporting Project Teams and the efficient delivery of TDOT's Work Program by collecting geodetic data and assisting with analysis and technical drawings. Assist with the development of workflows for all geodetics equipment and software and provide troubleshooting assistance with equipment and software being utilized in the Region. Monitor the effectiveness and calibration of equipment and software and provide feedback to the Region Geodetics Foreman.

Integrate Quality Management into all deliverables to ensure geodetic products comply with TDOT Geodetics standards to obtain data and provide uniform outputs to eliminate rework. Independently produce data, reports, and technical drawings ensuring consistency, quality, and desired accuracy.

Guide survey field crews in conducting land surveys, engineering surveys, and control surveys. Estimate time and equipment needed to accomplish survey projects and make decisions in the field needed to accomplish survey projects and keep on schedule.

Assist in the production and creation of geodetic data in conformance with the TDOT Survey Standards Manual and utilize Open Roads Designer (ORD) and/or other relevant software when assigned for technical drawings for projects having a

moderate degree of risk to the Department. Understand data collection and staking techniques that comply with the TDOT Survey Standards Manual.

Assist in the collection of survey data from a point cloud, identifying the point and adding descriptions. Additionally, assist in the collection of survey data with LiDAR, and conventional survey in accordance with the TDOT Survey Standards Manual. Understand the application and use of appropriate software for geodetic-specific processing of complex data sets that produce the required deliverables.

Assist with maintaining and monitoring training schedules and generating reports on training activity and progress. Deliver complete and accurate data required for legal descriptions for all proposed acquisition of property rights by the Region Design and ROW Sections. Utilize ORD to draft out legal descriptions and run a map check report when required.

Remain current on geodetic best practices. Guide in collecting, analyzing, and reporting on various types of geodetic data collection, staking and processing techniques. Provide input on relevant geodetics technology and techniques that contribute to delivering the Department's Work Program.

Assist in ensuring the Geodetics deliverables are consistent, predictable, and repeatable to provide consistently high levels of achievement, mitigation of risk, and an established track record of success. Assist in analyzing and tracking all data sets to ensure conformance to maximum error limits. Monitor, maintain and track physical assets and inventory.

Provide exceptional customer service to project stakeholders, property owners and the public when surveying by collecting geodetic data, staking, and sharing acquired knowledge with Project Teams, ensuring geodetic data is easily accessible and organized, exercising effective listening skills, and communicating effectively.

Qualifications

- High school diploma or equivalent
- 4 years of demonstrated competency in land or aerial surveying, preferably in a transportation field
- Completion of the Engineering Technician Proficiency Program levels I through III.

OR

- High school diploma or equivalent
- 4 years of demonstrated competency in land or aerial surveying, preferably in a transportation field
- Including at least one (1) year of experience with leading crews or teams on assignments and/or training employees, including effective communication through active listening, and providing verbal and written instructions.

OR

- Associate degree
- 2 years of demonstrated competency in land or aerial surveying, preferably in a transportation field
- Including at least one (1) year of experience with leading crews or teams on assignments and/or training employees, including effective communication through active listening, and providing verbal and written instructions.

Ideal Candidate

The Region Geodetics Engineering Technician 4 is proficient in all matters related to participating in and guiding technical crews and delivery of quality survey data. They assist with creating an open environment that encourages communication and collaboration with their team and is a role model on field crews assisting with achieving accountability. The Region Geodetics Engineering Technician 4 is collaborative and works closely with and assists with guiding survey crews to ensure that all geospatial data collected and managed by the Department is of the highest quality, and they are passionate advocates for the importance of geodetics within TDOT.