

POSITION DUTY STATEMENT

DOT PM-0924 (REV 01/2025)

CLASSIFICATION TITLE Transportation Engineer Tech	OFFICE/BRANCH/SECTION North Region/Office of Surveyors
WORKING TITLE TET	POSITION NUMBER 927-201-3175-XXX
	REVISION DATE

As a valued member of the Caltrans team, you make it possible to improve lives and communities through transportation.

GENERAL STATEMENT:

Under supervision, in a 1st and full journey working level capacity, the incumbent will do complex nonprofessional surveying work in Caltrans. Under the direction of a licensed Land Surveyor, incumbents perform a wide variety of nonprofessional land surveying work in either an office or field setting. As incumbents progress in experience, they will be assigned more difficult work.

CORE COMPETENCIES:

As a Transportation Engineer Tech, the incumbent is expected to become proficient in the following competencies as described below in order to successfully perform the essential functions of the job, while adhering to and promoting the Department's Mission, Vision, Values, Strategic Imperatives and Goals. Effective development of the identified Core Competencies fosters the advancement of the following Leadership Competencies: Change Commitment, Risk Appetite, Self-Development/Growth, Conflict Management, Relationship Building, Organizational Awareness, Communication, Strategic Perspective, and Results Driven.

- **Flexibility and Managing Uncertainty** : Adjusts thinking and behavior in order to adapt to changes in the job and work environment. (Prosperity - Pride)
- **Dealing with Ambiguity (Risk)**: Can comfortably handle risk and uncertainty, as well as make decisions to act without having the total picture. (Prosperity - Collaboration)
- **Continuous Professional Development**: Seeks to obtain knowledge and improve performance while supporting others in doing the same. (Employee Excellence - People First)
- **Problem-solving and Decision-making** : Identifies problems and uses logical analysis to find information, understand causes, and evaluate and select or recommend best possible courses of action. (Employee Excellence - Stewardship)
- **Teamwork/Partnership**: Develops, maintains, and strengthens partnerships with others inside or outside of the organization through effective communication and collaboration. (Equity - Collaboration, Equity)
- **Organizational Awareness**: Contributes to the organization by understanding and aligning actions with the organization's strategic plan, including the mission, vision, goals, core functions, and values. (Prosperity - Innovation)
- **Communication**: Expresses oneself clearly in all forms of communication. Gives feedback and is receptive to feedback received. Knows that listening is essential. Keeps others in the Division and other functional units informed as appropriate. (Safety - Collaboration)
- **Analytical Skills**: Approaches problems using a logical, systematic, and sequential approach. Weighs priorities and recognizes underlying issues. (Safety, Prosperity - Stewardship)
- **Thoroughness**: Ensures that work and information is complete and accurate. Ensures that assignment goals, objectives, and completion dates are met. Documents and reports on work progress. (Employee Excellence - Integrity)

TYPICAL DUTIES:

Percentage
Essential (E)/Marginal (M)¹ Job Description

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40%	E	<p>The incumbent assists the Transportation Surveyor/Party Chief or Transportation Surveyor/Lead Worker in the reconnaissance, planning, and execution of assigned survey fieldwork. Responsibilities include working in a time efficient manner, organizing and using work tools effectively, and properly caring for equipment, materials, and vehicles in accordance with safe work practices.</p> <p>The incumbent is responsible for the proper operation and routine maintenance of all precision surveying instruments used by the survey crew, including digital levels, total stations, data collectors, GPS receivers, and associated cables and batteries. Duties include preparing the data collector for various operations, entering data coding in accordance with established Caltrans and Regional standards, setting observation targets with precision, and accurately reporting all height measurements.</p> <p>The incumbent must be able to identify appropriate terrain and topographic features for design data surveys and properly operate a prism pole for all types of surveys, including land net, construction, and utility surveys. The incumbent must clearly and accurately communicate point descriptions, characteristics, and prism pole heights to the instrument operator or data collector operator.</p> <p>Additional responsibilities include performing calculations required for construction staking activities such as slope staking, bank plugs, finish grade, and string line. The incumbent determines proper locations for reference stakes, selects appropriate equipment and methods, and prepares all stake cards or lath accurately, legibly, and neatly. All staking activity must be thoroughly documented.</p>
25%	E	<p>The Incumbent shall set or recover and tie survey control, land net or R/W monuments in accordance with Caltrans and Regional practices and procedures and provide complete, accurate, neat and well organized documentation using Caltrans and Regional note forms, i.e., Survey Monument control sketches, Survey Control and Land Net Schema, Corner records, Construction Staking diagrams, etc.</p>
15%	E	<p>The Incumbent shall set out traffic signs, cones, and perform traffic control and lookout duties in accordance with Chapter 2 of the Caltrans Surveys Manual and the Caltrans Safety Manual. Incumbent shall clear brush and tree limbs, as permitted and needed using hand tools.</p>
10%	E	<p>The incumbent shall properly operate the survey crew's field computer and all associated software programs. Responsibilities include the accurate and effective review and editing of survey observation data. The incumbent must be able to transfer required survey data to and from the Total Station data collector (Survey Controller) and to and from data-transfer media or storage devices. The incumbent is required to review and edit survey control data and coding, compute field closures and adjustments, and review and edit terrain and topographic data to ensure accuracy and completeness.</p>
5%	M	<p>Incumbent shall assist in maintaining equipment, material inventory and determine equipment maintenance and replacement needs and any materials needed by survey crew.</p>

¹ESSENTIAL FUNCTIONS are the core duties of the position that cannot be reassigned.

MARGINAL FUNCTIONS are the minor tasks of the position that can be assigned to others.

SUPERVISION OR GUIDANCE EXERCISED OVER OTHERS

The Transportation Engineering Technician does not supervise.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

Knowledge of: Fundamental surveying, mathematics and basic science as applied to surveying; methods of precise survey measuring; use and adjustment of precision surveying instruments; procedures; equipment and materials used in surveying, including conventional and state of the art; mapping and drafting techniques; mathematics and procedures used in plane surveying; computer applications and usage; Code of Safe Surveying Practices.

Ability to: Perform the less complex nonprofessional field and office surveying work; make precise survey measurements; make and interpret the less difficult survey calculations; research, analyze, check, and adjust survey data; research and compile evidence and documentation for boundary determination; perform mapping and drafting; analyze situations accurately and take effective action; prepare clear and concise notes and correspondence; operate precise surveying instruments (conventional and state of the art); establish and maintain friendly, business-like relations with those contacted in the course of the work; communicate effectively. Effectively organize time caring for equipment, work tools and materials; follow good work practices for vehicle maintenance and personal safety. Follow good work practices operating and maintaining all precision survey instruments used by the survey crew, such as the digital level, the Total Station instrument and its data collector, GPS receivers and all associated cabling and batteries.

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RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

A Transportation Engineering Technician must be responsible for the accuracy and completeness of the survey work that was subject to his/her decisions. Errors and omissions in survey data could require costly returns to the job site for corrections and adversely affect project delivery. Errors in construction stakes could lead to costly changes.

PUBLIC AND INTERNAL CONTACTS

A Transportation Engineering Technician on a survey crew deals with the traveling public during signing and traffic control operations on the highway. A Transportation Engineering Technician has contact with property owners at field locations and redirects all inquiries to the Party Chief, requests information from other departments as directed by the Party Chief and has contact with other governmental agencies and the public.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

Manual labor can be expected to be intense. Position requires using cutting tools to clear brush. Must be able to take direction constructively and work productively in a team environment. Incumbent can expect to drive survey stakes and markers with sledgehammers for extended periods. Extensive walking, often over steep and uneven terrain, while transporting stakes, supplies, and equipment is necessary. The incumbent can expect to work under very noisy conditions and is required to be tolerant of working within very close range of high-speed traffic and heavy equipment while maintaining safety consciousness. Must multitask and adapt to changes quickly and prioritize projects. Must complete projects timely with short notice. Prolonged sitting, standing, bending. Must be an effective communicator.

WORK ENVIRONMENT

Incumbent must be able to travel to project locations away from their home requiring overnight travel; must be able to work overtime when needed; must be able to work on foot near heavy traffic; must be able to work in extreme weather conditions including wet, dusty and dirty environments; must be able to drive any type of vehicle requiring a Class "C" license in heavy freeway and highway traffic. Manual labor can be expected to be intense. Position requires using cutting tools to clear brush, which can be dense and could include poison oak. Survey locations are often set in tick infested terrain. This position requires the use of heavy-duty work clothes and safety boots.

I have read, understand and can perform the duties listed above. (If you believe you may require reasonable accommodation, please discuss this with your hiring supervisor. If you are unsure whether you require reasonable accommodation, inform the hiring supervisor who will discuss your concerns with the Reasonable Accommodation Coordinator.)

I agree that by providing my electronic signature for this form, I agree to conduct business transactions by electronic means and that my electronic signature is the legal binding equivalent to my handwritten signature. I hereby agree that my electronic signature represents my execution or authentication of this form, and my intent to be bound by it.

EMPLOYEE (Print)

EMPLOYEE (Signature)

DATE

I have discussed the duties with, and provided a copy of this duty statement to the employee named above.

SUPERVISOR (Print)

SUPERVISOR (Signature)

DATE

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