STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

POSITION DUTY STATEMENT

PM-0924 (REV 7/2014)

CLASSIFICATION TITLE	OFFICE/BRANCH/SECTION	
Transportation Engineering Technician	District /DesignV/Surveys	
WORKING TITLE	POSITION NUMBER	EFFECTIVE DATE
Survey Crew Member	930-205-3175-XXX	

As a valued member of the Caltrans team, you make it possible for the Department to provide a safe, sustainable, integrated, and efficient transportation system to enhance California's economy and livability. Caltrans is a performance-driven, transparent, and accountable organization that values its people, resources and partners, and meets new challenges through leadership, innovation and teamwork.

GENERAL STATEMENT:

Under the supervision of a Transportation Surveyor Party Chief (Caltrans) or direction of a Lead Worker, incumbent will function as a member of a field survey crew, performing a wide variety of nonprofessional land surveying work in either an office or field setting, as incumbent progresses in experience, they will be assigned more difficult work.

TYPICAL DUTIES:

Percentage	Essential (E)/Marginal (M)[1]	Job Description
45%	E	Assist the Transportation Surveyor Party Chief or Transportation Surveyor/Lead Worker in the research, planning and execution of assigned survey fieldwork. Assist in the use of the Total Station Survey System, Global Positioning Systems and Digital Levels. Assist in determining the most appropriate topographic points to be surveyed on design data surveys and act as an instrument person and rod person on complex and routine construction, topographic and land net surveys. Use hand and power tools such as shovels, digging bars, sledge hammers and jackhammers under the direction of a Transportation Surveyor Party Chief/Lead Worker to locate and/or set survey stakes and monuments.
25%	E	Perform elementary calculations incidental to construction staking such as slope stakes, offset stakes and finish grade stakes. Determine the most appropriate location for any construction reference stakes to be set; and mark stake cards or stakes (lath); document all staking performed accurately, legibly and neatly. Responsible for keeping complete, accurate, neat and well organized documentation, such as, survey and construction notes and calculations for field crew use.
25%	E	Set out traffic signs and perform traffic control and lookout duties in accordance with Chapter 2 of the Caltrans Surveys Manual and the Caltrans Safety Manual. This includes but not limited to, setting signs, cones, flagging traffic and location of barrier vehicles.
5%	M	Assist in maintaining equipment and material inventory and determine equipment maintenance and replacement needs and any materials needed by survey crew.

[1]ESSENTIAL 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

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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.

Analytical Requirements:
A Transportation Engineering Technician must analyze situations accurately and communicate an effective course of action to the TSPC or Lead Worker. This position requires the ability to make analytic judgments pertaining to all phases of nonprofessional land surveying.

The incumbent must have a strong background in land surveying and computational skills as a basis for these analytical judgments. Examples would be to assess the terrain at a survey location to determine the best way to perform the work efficiently and effectively analyze the results of survey computations for the accuracy and completeness, plan for his/her safety and that of the crew and the traveling public, review the collected field data for accuracy and completeness, and ensure that administrative documents are prepared completely and accurately.

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

This position requires the use of heavy-duty work clothes and safety boots. 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. 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

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.

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.)

EMPLOYEE (Print)

EMPLOYEE (Signature)	DATE

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

SUPERVISOR (Print)	
SUPERVISOR (Signature)	DATE