

POSITION DUTY STATEMENT

DOT PM-0924 (REV 08/2024)

CLASSIFICATION TITLE Transportation Surveyor	OFFICE/BRANCH/SECTION DES/BD/Office of Photogrammetry & Preliminary Investigations	
WORKING TITLE Transportation Surveyor-Preliminary Investigations	POSITION NUMBER 559-240-3029-005	REVISION DATE 09/27/2024

As a valued member of the Caltrans leadership team, you make it possible for the Department to provide a safe and reliable transportation network that serves all people and respects the environment.

GENERAL STATEMENT:

This is the entry, first working, and journey level of professional surveying work in Caltrans. Under the direction of the Preliminary Investigations Transportation Surveyor Party Chief (TSPC) or Senior Bridge Engineer (SBE), the Transportation Surveyor (TS) will perform the more-complex office and field duties in the Preliminary Investigations Branch. The incumbent will be responsible for conducting bridge site surveys, reducing and analyzing collected survey data using error analysis, adjustment and processing software, and integrating into CADD or modeling software. The TS will assist in planning and performing structure monitoring surveys and establishing control for topographic, bathymetric, and structural surveys. The TS will help implement and maintain coordination efforts between the Preliminary Investigations Branch, District Surveys, Bridge Design, Structure Hydraulics and Structure Maintenance. Traveling and driving to various locations throughout the State is required. Possession of a valid Driver's License is required when operating a state owned, leased or personal vehicle to perform these duties.

CORE COMPETENCIES:

As a Transportation Surveyor, 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.

- **Creativity and Innovation:** Thinks beyond the confines of traditional models to recognize opportunities, seek creative solutions and take intelligent risks. (Strengthen Stewardship and Drive Efficiency - Innovation)
- **Decision Making:** Makes critical and timely decisions. Takes charge. Supports appropriate risk. Makes challenging and appropriate decisions. (Safety First - Engagement)
- **Reliability:** Ability to demonstrate dependability in meeting commitments, and providing a consistent work product. Takes responsibility for individual actions in order to meet deadline demands. (Cultivate Excellence - Pride)
- **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. (Safety First - Engagement)
- **Teamwork and Collaboration:** Sets team structure. Organizes, leads, and facilitates team activities. Promotes team cooperation and encourages participation. Capable of cross functionality and working well with others on a team to achieve personal goals, team goals, and organizational goals. Takes responsibility for individual actions in order to achieve consistent results. (Safety First, Lead Climate Action - Engagement)
- **Customer Focus:** Considers, prioritizes, and takes action on the needs of both internal and external customers. (Cultivate Excellence - Engagement)
- **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 First - Engagement)
- **Analytical Skills:** Approaches problems using a logical, systematic, and sequential approach. Weighs priorities and recognizes underlying issues. (Enhance and Connect the Multimodal Transportation Network - Innovation)
- **Computer literacy and application:** Appropriate knowledge of computer applications and other tools necessary to successfully perform tasks. (Cultivate Excellence - Integrity)

TYPICAL DUTIES:

Percentage	Job Description
40% E	Assists the TSPC in the field on assigned bridge sites, establish control, and collect topographic, photogrammetric, bathymetric and structure survey data utilizing a variety of survey equipment such as echosounder/bathymetric hardware, GNSS receivers, total stations and aerial and terrestrial LiDAR scanners.

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POSITION DUTY STATEMENT

DOT PM-0924 (REV 08/2024)

20%	E	Assists the TSPC in the analysis and reduction of conventional, GNSS, LiDAR, and sonar field data to project coordinate systems and datums using a variety of error analysis, survey adjustment and processing software. Ensures the data meets Caltrans project standards and provides solutions to survey problems.
20%	E	Assists the TSPC or SBE in the timely development or review of Foundation Plans or models. Assists the TSPC in the timely development of site and hydraulic surfaces and point clouds using both record and field survey data in CADD or modeling (BIM) software.
10%	E	Interacts with project engineers and District staff on survey requests. Provides to TSPC time estimates for completion of projects assigned.
5%	M	Assists the TSPC in the evaluation of conditions and implementation of safety practices to provide a safe field working environment.
5%	M	Reviews District Bridge Site Data Submittals (BSDS) and creates and maintains project folders to include procurement of all necessary district data required by the BSDS and Foundation Plans.

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

May act as lead person of Transportation Surveyors or Transportation Engineering Technicians in the absence and direction of the Transportation Surveyor Party Chief.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

Surveying methods, equipment, data-collection software and procedures.

Computers, surveying, CADD and modeling (BIM) software.

Land Surveyors Act, Subdivision Map Act, Public Resource Code.

California Coordinate System.

Safety Policies and Procedures.

ABILITY TO:

Set-up, operate and maintain field survey equipment, adhere to Caltrans Survey standards, make accurate survey calculations.

Produce neat, accurate and professional survey maps.

Communicate and work well with others.

Complete work assignments involving details and requiring a high degree of accuracy on a timely basis.

Comply with Department and District policies and procedures.

Use, adjust, and maintain surveying instruments and other equipment.

ANALYTICAL REQUIREMENTS:

Must possess the ability to analyze survey data, recognize erroneous and unreasonable results and determine the reliability of data, which may affect the final maps and products of others.

Must be familiar with the Land Surveyors Act, Subdivision Map Act, Public Resource Code, California Coordinate System, and other statutes related to land surveying and is required to analyze data and make decision on how to apply these laws.

Must be able to analyze safety needs. Must be able to effectively utilize Surveying and CADD software systems.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

Has the ability and motivation to complete assignments in a timely manner with a minimum of supervision and a maximum amount of care and accuracy. Errors in judgment or in calculations could jeopardize project deadlines and result in additional time and expense. Errors caused by inaccurate maps could result in time and dollar losses and in project delays and/or costly construction change orders and construction delays. Poor judgment regarding safety in the field could endanger self, other crew members or the public.

PUBLIC AND INTERNAL CONTACTS

Has extensive contact with other crew members, District Surveys, personnel, bridge designers and private owners.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

Employee will be required to travel and to drive to various locations on field assignments statewide, working in the field under

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very noisy conditions and is required to be tolerant of working within close range of high-speed traffic and heavy equipment. Extensive walking, often over steep and uneven terrain, carrying a variety of heavy surveying equipment and supplies, clearing brush and other obstructions when necessary in a variety of weather conditions. Employee may also be required to sit for long periods of time at a desk using keyboard and video display terminal and be required to move large and cumbersome plans and diagrams from one location to another. Must be able to adapt to changing conditions, project requirements and deadlines while maintaining a professional demeanor.

WORK ENVIRONMENT

The work assigned is usually along waterways, bridges, and traveled way of highways, often in remote areas. Incumbent will be required to work outdoors in possible harsh conditions and will be exposed to dirt, noise, poison oak, uneven surfaces and/or extreme heat or cold. Incumbent will also be required to travel and, as the assignment dictates, lodge overnight for an extended duration. While at the base of operation, incumbent will work in a climate-controlled office under artificial lighting.

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
