

POSITION DUTY STATEMENT

DOT PM-0924 (REV 01/2025)

CLASSIFICATION TITLE Transportation Engineer Tech	OFFICE/BRANCH/SECTION DES/GS/OGDW	
WORKING TITLE Transportation Engineering Technician	POSITION NUMBER 559-315-3175-911	REVISION DATE 04/01/2025

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

GENERAL STATEMENT:

Under supervision of a Senior Transportation Engineer, the Transportation Engineering Technician performs geotechnical field work such as assisting in drilling request preparation, logging bore holes, assisting geologists with field mapping, and assisting in the installation and monitoring of geotechnical instrumentation. In this capacity the Transportation Engineering Technician may also assist in rock climbing and scaling operations, Unmanned Aircraft Systems (UAS) mapping and other geotechnical field work data gathering. Works either as part of a team or independently as necessary to conduct various field 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.

- **Learning on the Fly:** Learns quickly, is open to change, experiments, and is flexible. (Safety - Innovation)
- **Dealing with Ambiguity (Risk):** Can comfortably handle risk and uncertainty, as well as make decisions to act without having the total picture. (Safety - Collaboration, Innovation)
- **Continuous Professional Development:** Seeks to obtain knowledge and improve performance while supporting others in doing the same. (Employee Excellence - Integrity)
- **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 - Innovation, Integrity)
- **Teamwork/Partnership:** Develops, maintains, and strengthens partnerships with others inside or outside of the organization through effective communication and collaboration. (Safety - Collaboration)
- **Customer Focus:** Considers, prioritizes, and takes action on the needs of both internal and external customers. (Safety, Employee Excellence - Integrity)
- **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, Innovation)
- **Forward Thinking:** Anticipates the implications and consequences of situations and takes appropriate actions to be prepared for possible contingencies. Anticipates and prepares for future developments. (Safety - Innovation)
- **Commitment/Results Oriented:** Dedicated to public service and strives for excellence and customer satisfaction. Ensures results in their organization. (Safety - Integrity)

TYPICAL DUTIES:

Percentage Essential (E)/Marginal (M) ¹	Job Description
35% E	Conducts or participates in geotechnical field explorations, including assisting with obtaining necessary permits and logging bore holes and arranges for or conducts field and laboratory testing. Prepares field boring notes, classifies earth materials, and assists the geotechnical professional in the evaluation of soil and rock engineering characteristics. Assists with the creation of LOTB's or boring records. Plans, installs, monitors geotechnical instrumentation. Analyzes geotechnical instrumentation data and prepares reports. Instrumentation includes, but is not limited to: slope inclinometer, time domain reflectometry, piezometer, extensometer, settlement platform, and remote monitoring systems.
30% E	Maintains, calibrates and cares for instrumentation equipment. Tracks instrumentation reading schedule and arranges for instrumentation recovery and/or destruction. Maintain and track equipment inventory - includes paperwork for transferring or surveying equipment.

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15%	E	Assists field Engineering Geologists and Engineers in their mapping and assessment of sites. This may include UAS mapping of geologic hazards in steep terrain. Occasional climbing of rock slopes using climbing gear may be required. Also, may work with maintenance crews in the region, as well as other Districts, in assisting rock scaling teams while using climbing gear.
10%	E	Maintains soil and rock samples, logs in soils sample bags and rock core boxes, purges unneeded core and soil samples, moves and transports samples and core boxes.
10%	M	Will assist various staff in the preparation of designs, data processing, plans, estimates, reports and specifications for all types of highway and bridge projects.

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
None. This is not a supervisory position.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS
Knowledge of, or ability to learn, the use of computers.

Knowledge of, or the ability to learn, aspects of geotechnical instrumentation and test equipment; field instrumentation procedures; data acquisition devices; and in-situ testing.

Ability to independently apply sound judgment in field situations and to analyze factors capable of affecting field safety and data acquisition is required.

Ability to effectively communicate both verbally and in writing.

Ability to deal tactfully with individuals and groups from the Department, contractors, governmental agencies, and private consulting firms.

The incumbent must possess excellent field note taking skills and should be able to comprehend and analyze field situations and drilling issues to be able to recognize deficiencies as they arise and redirect efforts to make sure useful information is gathered.

The incumbent must recognize potential instrumentation problems and reliably assess their probable effects on the test program as it is being installed or monitored.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR
This position requires effective and timely response in all aspects of instrumentation and testing. Errors or delays and in responding to requests can result in design and construction delays. Failure to correctly acquire or interpret data, can result in inadequate design recommendations, construction delays or difficulties, substandard performance of structures, and the potential loss of Federal funds.

PUBLIC AND INTERNAL CONTACTS
The employee will routinely contact other Caltrans personnel, contractors and industry representatives concerning geotechnical fieldwork, rock climbing, drilling, testing and instrumentation. This contact will be verbal or written, as needed to perform assignments.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS
The incumbent will be required to work on field and construction sites, lift and transport heavy equipment and materials, work with exploratory equipment and collect field data. Landslide and undeveloped sites are often rugged and heavily vegetated.

Field and construction site surfaces are often uneven, may have open excavations and may be located on steep slopes. Weather conditions can vary between icy, slippery and wet to hot and dry. The incumbent must have the ability to traverse these sites and withstand exposure to the adverse conditions for long periods of time.

Must be able to carry and/or use field engineering equipment such as, but not limited to hand augers, surveying equipment, slope inclinometer equipment and core boxes. Other physical requirements of the job include the ability to lift and carry 50 pounds, reach overhead, push or pull, twist, climb, balance, bend, crouch, squat, crawl, and perform fine manipulation. Hearing and sight are both essential to job performance because the incumbent must be able to hear and see directions, traffic, equipment, and to other warnings or hazards thereby allowing the incumbent to perform duties safely. Corrected hearing is acceptable. Corrected

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sight must meet the CA DMV minimum visual acuity requirement. Night vision must be good for safety when working after dark. Incumbent may be required to work at night under artificial light.

While in the office, employees may be required to sit for long periods of time using a keyboard and video display terminal.

The incumbent will be responsible to ensure that assigned tasks are carried out in a professional, safe, and exacting manner and in accordance with existing policy, specifications, rules, work plans and guidelines.

The incumbent must grasp the essence of new information and master new technical knowledge; must have the ability to multi-task, adapt to changes in priorities, and complete tasks or project meeting strict deadlines with, at times, short notice.

The incumbent must possess the ability to develop and maintain cooperative working relationships, have a positive, productive, and friendly attitude, and maintain a willingness to learn while exposed to a variety of work environments.

Ability to work from heights and use rock climbing equipment.

WORK ENVIRONMENT

While in the field conducting tests the incumbent will often be on active highway construction sites and will be exposed to conditions typical of those sites (dust, noise, extreme weather). While at their base of operation the incumbent will work in an office setting under artificial lighting. As a statewide organization, DES adjusts to periods of fluctuating workload to successfully deliver projects. Incumbent will be required to travel and perform fieldwork and will be exposed to dirt, uneven surfaces, extreme temperatures, noise, vibration, and odor associated with fieldwork. May work around bulky/heavy materials and equipment used in the vicinity of inspection areas. May also be exposed to the motoring public. DES employees may be given temporary assignments on DES projects throughout the State as workload demands.

The applicant must demonstrate ability to safely operate a motor vehicle and must possess or obtain a class C California driver's license when operating a State owned vehicle. As such, extensive travel throughout the state (often overnight and for consecutive days) is a requirement of this position.

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
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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
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