

**CALIFORNIA DEPARTMENT OF TRANSPORTATION  
DUTY STATEMENT**

<b>CLASSIFICATION TITLE</b>	<b>DISTRICT/DIVISION/OFFICE</b>	
Transportation Engineering Technician	DES-METS/GS Office of Geotechnical Support Geotechnical Instrumentation Branch	
<b>WORKING TITLE</b>	<b>POSITION NUMBER</b>	<b>EFFECTIVE DATE</b>
Transportation Engineer Technician		January 5, 2012

**As a valued member of the Caltrans team, you make it possible for the Department to improve the mobility across California by being innovative and flexible; reporting to work regularly and on time; working cooperatively with team members and others; and treating others fairly, honestly and with respect. Your efforts are important to each member of the team, as well as those we serve.**

***GENERAL STATEMENT***

Under the supervision of a Senior Materials and Research Engineer (Supervisory), and direction of a Materials and Research Engineering Associate, Transportation Engineer Civil or Engineering Geologist, the Transportation Engineering Technician will conduct geotechnical instrumentation and in-situ testing for transportation projects. The primary responsibilities of this position are to safely, accurately, and efficiently perform geotechnical instrumentation and in-situ testing, implement solutions for technical instrumentation and testing problems, coordinate works with Caltrans internal/external customers, and work either as part of a team or independently as necessary.

***TYPICAL DUTIES***

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

- |         |  |
|---------|--|
| 45% (E) | Will perform geotechnical instrumentation and in-situ testing on soils, groundwater, structural foundations, and earth retaining structures to provide engineering data and parameters of interest. This work will include conducting geotechnical instrumentation and in-situ testing in accordance with standard test methods and instructions to obtain engineering properties of soils, groundwater, and structures. Such in-situ testing and instrumentation include, but are not limited to, cone penetration testing, pressuremeter testing, vane shear testing, slope inclinometer, time domain reflectometry, piezometer, extensometer, tiltmeter, beam sensor, settlement platform, remote monitoring systems, and tests conducted with various other types of geotechnical instrumentation. |
| 30% (E) | Will assemble, install, operate, and maintain instrumentation and testing equipment, transport testing equipment and supplies to and from project sites throughout the State, prepare site for monitoring/testing, erect or install monitoring/testing system, take accurate field notes, manage monitoring data, and prepare engineering charts and graphs for data collected. Will be responsible to   |

communicate with Caltrans Maintenance and Construction personnel, and other District units and outside consultants, contractors as necessary to carry out duties assigned.

- 15% (E) Will apply knowledge of computers to acquire test data from field instruments to and transmit data to the home office. Will perform analysis of collected data. In this capacity will use computers and commercially available data acquisition and communication software to collect test data and transmit test data from the field to the home office.
- 10% (M) Will maintain equipment and facilities used for instrumentation and in-situ testing. Conduct research, activities for material acquisition, safety meetings, or other duties as required.

### ***SUPERVISION EXERCISED OVER OTHERS***

This is not a supervisory position.

### ***KNOWLEDGE, ABILITIES AND ANALYTICAL REQUIREMENTS***

- Ability to travel to and from and work along freeway, at construction sites, landslide areas, and remote locations throughout California. The travel requirement is extensive, often overnight and for many consecutive days, depending upon Department needs. Instrumentation and testing will be conducted in the fields away from the home office.
- Possession of, or the ability to obtain within a year of hiring, a valid California Class A Commercial Drivers License. Position requires testing for controlled substances.
- Ability to safely lift heavy and bulky objects up to 50 pounds.
- Ability to work from heights possibly requiring the use of fall protection.
- Ability to work effectively with hand tools and power tools.
- Ability to independently apply sound judgment in test situations and to analyze factors capable of affecting test results.
- Knowledge of electronics and the use of computers.
- Ability to work with sealed radioactive sources.

- Knowledge of, or the ability to learn, aspects of geotechnical instrumentation and in-situ testing, testing equipment, testing procedures, and data acquisition devices.
- Ability to comprehend and analyze specification requirements and test methods as they relate to geotechnical instrumentation and in-situ testing. Must be capable of analyzing monitoring data and test results accurately, understand the significance and application of said results, and recognize potential field problems and reliably assess their probable effects on the monitoring/test program.
- Ability to effectively communicate both verbally and in writing. Must have the ability to take accurate notes and fill out field documentation.
- Ability to deal tactfully with individuals and groups from the Department, contractors, governmental agencies, and private consulting firms.
- The ability to interact effectively with individuals and groups from the Department, governmental agencies, contractors, and private consulting firms.

### ***CONSEQUENCE OF ERROR/RESPONSIBILITY FOR DECISIONS***

This position requires effective and timely response in all aspects of geotechnical instrumentation and in-situ testing. Errors in judgment and/or decisions or excessive delays in rendering decisions could affect public and employee safety, cause projects delays with associated costs, or result in tort liability for the Department. Errors may also represent a significant safety hazard to the employee, coworkers, or the public.

### ***PUBLIC AND INTERNAL CONTACTS***

The employee will routinely contact other Caltrans personnel, contractors and industry representatives concerning geotechnical instrumentation and in-situ testing. This contact will be verbal or written, as needed to perform assignments. Incumbent will be required to make periodic safety meetings in the field or at designated safety meetings. Must be able to clearly communicate and direct operations in orally and written forms.

### ***WORK ENVIRONMENT***

Employees will be extensively required to travel and work outdoors, and may be exposed to dirt, noise, uneven surfaces, and/or extreme heat or cold. While at their base of operation, employees will work in a climate-controlled office under artificial lighting.

***PHYSICAL, MENTAL AND EMOTIONAL REQUIREMENTS***

Employees will be required to travel throughout California; work along freeway, at construction sites, landslide areas, and remote locations; walk across uneven terrain, climb into and out of excavations, and direct field operations. They may also be required to move test equipment and test materials that may require lifting up to 50 lbs. Employees may be required to sit for long periods of time using a keyboard and video display terminal.

I have read and understand the duties listed above and can perform them **with/without reasonable accommodation.** (If you believe you may require reasonable accommodation, please discuss this with the 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

\_\_\_\_\_  
DATE

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

\_\_\_\_\_  
SUPERVISOR (Print)

\_\_\_\_\_  
SUPERVISOR

\_\_\_\_\_  
DATE