

POSITION DUTY STATEMENT

DOT PM-0924 (REV 01/2025)

CLASSIFICATION TITLE	OFFICE/BRANCH/SECTION	
Senior Engineering Geologist	GS, Office of Geotech Support, Geophysics & Geology Branch	
WORKING TITLE	POSITION NUMBER	REVISION DATE
Senior Engineering Geologist (Supervisory)	559-316-3751-002	10/29/2025

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

GENERAL STATEMENT:

Under the supervision of a Supervising Transportation Engineer the Senior Engineering Geologist (Supervisory) will plan, organize, and direct geologic and geophysics studies for transportation projects. The primary responsibilities of this position will be to provide coordination with District units and the four geotechnical design offices. This will include serving as liaison to clients, and developing and tracking the conduct of geophysical testing. The incumbent will be responsible for ensuring that testing is conducted on schedule, and that the results are provided to the clients in accordance with necessary deadlines. Incumbent must possess a valid license as a geologist or geophysicist issued by the California Board for Professional Engineers, Land Surveyors and Geologists. Said licensure is required for appointment to the Senior Engineering Geologist level.

CORE COMPETENCIES:

As a Senior Engineering Geologist, 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.

TYPICAL DUTIES:

Percentage		Job Description
Essential (E)/Marginal (M) <sup>1</sup>		
35%	E	Plan, schedule, and direct the activities of staff in the design, development, deployment, and interpretation of both surface and borehole geophysical testing, including non-destructive testing for pavement, bridge decks and subsurface utilities. Surface testing includes but is not limited to Seismic Refraction, Refraction Tomography, Rayleigh-Wave Inversion, Magnetometry, Electrical Resistivity, Electromagnetic Induction and Ground Penetrating Radar. Borehole geophysical testing includes but is not limited to PS Suspension, Caliper, Resistivity, Optical and Acoustic Televiewer, and Full-Waveform Sonic logging.
20%	E	Incumbent is responsible for reviewing results of field testing to verify validity for specific project objectives. Must be capable of interpreting and understanding the significance of test results. Travel throughout the State is a requirement of this position. Must be willing to work with test equipment utilizing sealed source radioactive isotopes. Must be willing to work with explosive sources for seismic surveys. Must be willing to work on steep slopes using fall protection equipment.
20%	M	Provide liaison and technical support in regard to geophysical testing to other units within the Department including District and Division of Engineering Services, other state agencies, other DOTs, and FHWA.
15%	E	Conduct administrative and other supervisory duties as required.
10%	M	Perform research and other special assignments related to geophysics.

<sup>1</sup>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

This is a supervisory position. The incumbent will direct the activities of engineering geologists and transportation-engineering technicians. The incumbent may be required to direct the activities of additional staff, depending upon the geophysical testing needs of the Department.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

- Knowledge of various surface and borehole geophysical and methods, as listed in the Typical Duties section of this Duty Statement.
- Ability to adapt geophysical methods to various types of investigations and to learn new methods.
- Ability to instruct others in the performance of geophysical investigations, interpretation of the results, and the selection of appropriate geophysical techniques to acquire necessary geotechnical data.

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- Excellent working knowledge of California geology.
- Ability to write clearly and effectively and clearly communicate verbally with Department staff, consultants, and others.
- Ability to manage a diverse technical staff in the daily operations of a field testing unit.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

The Senior Engineering Geologist is responsible for providing information that could affect the public safety, the viability of highway construction projects, or the cost of such projects. May be called upon to provide on-the-spot assessments of data that will guide decisions for construction problems or emergency repairs. May be called upon to make presentations to the public, internal customers or provide legal testimony. Errors in judgment and/or decisions could affect public safety or result in tort liability for the Department.

PUBLIC AND INTERNAL CONTACTS

The Senior Engineering Geologist is in frequent contact with geotechnical design, headquarters and District personnel. Serves as the representative of Geotechnical Services and the Department for geophysical testing and will have contact with other state, federal, and local agencies. May be required to make public presentations.

The position requires frequent and regular contact with the Offices of Geotechnical Design and other functional area personnel concerning geophysical testing related to in-house projects as well as projects developed by engineering consultants. The incumbent will also be in contact with representatives of FHWA, technical organizations such as ASCE, AASHTO, and other outside entities within the geotechnical industry.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

While at their base of operation, employees may be required to sit for periods of time using a keyboard and video display terminal. They may also be required to move test equipment and test materials that may require lifting up to 50 lbs.

WORK ENVIRONMENT

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

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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