

**POSITION DUTY STATEMENT**

PM-0924 (REV 7/2014)

CLASSIFICATION TITLE Transportation Engineering Technician	OFFICE/BRANCH/SECTION NR/District 2/Construction/ Redding Materials Laboratory	
WORKING TITLE Laboratory Worker	POSITION NUMBER 928-502-3175	EFFECTIVE DATE

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 general supervision of a Senior Transportation Engineer, the incumbent samples and tests materials with strict adherence to California Test Methods, AASHTO, and ASTM test methods. Accuracy of reporting test results is of primary importance. The Laboratory Worker may act in a lead-worker capacity as needed. Independent action is encouraged with significant decisions and final recommendations concurred by the Unit Chief.

**TYPICAL DUTIES:**

Percentage		Job Description
Essential (E)/Marginal (M) <sup>1</sup>		
50%	E	Perform a wide variety of technical testing in materials engineering work, either in the field or a laboratory, by following California Test Methods, AASHTO, and ASTM test methods. Report test results to the Laboratory Lead Worker for accuracy. The test results are forwarded to Construction, and are used by the Resident Engineer for contract administration purposes.
25%	E	Log-in and prepare samples for testing. Samples of soil, aggregate, asphalt, asphalt concrete, and concrete will be delivered to the Materials Laboratory loading dock by Construction, Maintenance, or the Contractor. Transfer TL-101 tag information from the samples to the laboratory filing system, assigning it an identification number in order for the samples and results to be tracked during, and after testing. Prepare samples for further testing; aggregate will be dried out for a sieve analysis, asphalt concrete will be placed in the oven to determine its oil content, stability, and density. Discuss sample deliveries with the Laboratory Lead Worker so that the testing is prioritized.
10%	E	May perform pavement sampling by coring, as allowed by laboratory testing workload. Sample asphalt and concrete for assurance testing.
10%	E	Physically assist in the maintenance and calibration of testing machines and equipment on a routine basis.
5%	M	Interpret contract specifications and determine applicable tests for samples to meet contract compliance. Perform other duties as required for maintaining and improving a smooth operation of laboratory facilities.

<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 position has no supervisory responsibilities. May act in a lead-worker capacity as needed.

**KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS**

Knowledge of: Test methods used in highway construction, Soil and material sampling techniques, Standards and Practices of materials as practiced by the Department and the engineering profession, and Caltrans Specifications.

Abilities: Must possess good written and oral skills and have the ability to work independently or as a team member. Must be able to work with others in the District, the Department, the public, and other agencies to carry out duties. Must

**ADA Notice**

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have the ability to follow directions, utilizing the equipment, as shown and instructed in the test methods. Must have the ability to maintain strict adherence to the test methods to achieve accurate materials test results.

Analytical Requirements: Requires the analytical ability to interpret specification requirements for materials and to perform standardized materials testing procedures. Must be capable of understanding test results and able to recognize deficiencies of materials being tested. Must have the expertise to pass tests for Independent assurance Test Certifications (IAT). Basic math skills must include algebra and geometry. Basic writing skills are also mandatory for this job.

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### RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

Responsible for the accuracy and completeness of materials sample preparation and physical tests performed. Inaccurate test results can have serious financial and credibility consequences to Caltrans. Errors may result in failure of roadbeds, rejection of satisfactory materials, or contractor claims.

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### PUBLIC AND INTERNAL CONTACTS

Day-to-day contacts with Construction when receiving samples. Contact with contractors and the public would only be incidental. Must have the ability to coordinate work with other laboratory personnel in an efficient and professional manner, and to be an effective team member. Must convey test results of the materials samples to the Laboratory Lead Worker, who in turn notifies the Resident Engineer of the results. The Resident Engineer is advised of any test results that do not meet the specifications for their project. There are instances where the Laboratory Worker must convey these results directly to the Resident Engineer. Some test results are reported to the Maintenance units. Both Construction and Maintenance utilize the test results for contract administration purposes. The test results are used to assure that the materials meet the minimum qualities specified by the contract. The Contractor's pay is dependent on the test results.

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### PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

Physical Requirements: Employees may be required to stand or sit for long periods of time operating various types of laboratory equipment. They may also be required to move large or cumbersome samples weighing up to 50 lbs. into and through out the Materials Laboratory. Employees must be able to work in noisy and dusty conditions, and may be required to wear a respirator for their personal protection.

Emotional Requirements: Must be able to develop and maintain cooperative working relationships. Incumbent will work as a member of a team.

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### WORK ENVIRONMENT

While at the base of operation, employee will work in a partially climate-controlled laboratory under artificial lighting. The employee may be exposed to dust, noise, fumes, chemicals, and heat while performing certain test methods. Safe work practices must be followed at all times for accident/injury prevention.

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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

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

SUPERVISOR (Print)

SUPERVISOR (Signature)

DATE