

**POSITION DUTY STATEMENT**

PM-0924 (REV 7/2014)

CLASSIFICATION TITLE TRANSPORTATION ENGINEERING TECHNICIAN	OFFICE/BRANCH/SECTION ENGINEERING /MATERIAL LABORATORY	
WORKING TITLE Laboratory Technician	POSITION NUMBER 911-320-3175-007	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 the supervision of the District Materials Engineer, a Senior Transportation Engineer, and direction from the District's Laboratory Manager, a Materials and Research Engineering Associate (MREA), the incumbent performs difficult to complex materials testing work, makes field inspections and investigations, and other related materials testing work. The incumbent assists with research or investigation work on road or bridge materials, uses engineering and computer oriented processes to compile and analyze material testing data, and may act as a lead person in materials testing.

**TYPICAL DUTIES:**

Percentage		Job Description
60%	E	Performs laboratory physical tests of highway construction materials, such as: coarse and fine grading of soils and aggregates, sand equivalents, asphalt oil content using asphalt ignition oven, cleanness, durability, specific gravities, the capping and compression testing of Portland cement concrete cylinders, asphalt stabilities and other testing as required by the Standard Specifications and Special Provisions. This includes performing these tests with both Caltrans Test Methods, American Association of State Highway Officials (AASHTO), the American Society for Testing and Materials (ASTM) and the American Concrete Institute (ACI) procedures.
30%	E	Makes calculations based on the above testing and other work as required related to the testing of materials. Uses computer programs such as (but not limited to) Word/Excel/Access in order to produce test reports and enter test data into a computer for review by Construction staff.
10%	M	Works with Construction staff to review paper work for material submitted to the lab for testing to avoid delays.

<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**

None. May act in a lead capacity

**KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS**

A working knowledge of basic math and some computer skills. The mechanical aptitude required to operate laboratory testing equipment such as, weighing scales, sieve shakers, hot asphalt extractors, asphalt ignition oven, sand equivalent shaker, compression machines, and various other testing equipment. It is necessary to understand and perform test methods as described by the Manual of Tests. These test methods must be followed as they are required by the Standard Specifications and/or Special Provisions for all projects.

Ability to communicate effectively both orally and in writing and to prepare reports.

**RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR**

The responsibility of accurate test results is essential to quality control of materials used in construction of a project and for the design of earthwork structures. The effect of poor test results could result in substandard materials being used for a construction project which could cause failure or repair prior to the anticipated designed life.

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## PUBLIC AND INTERNAL CONTACTS

Contact is basically with co-workers in the materials laboratory and some field personnel from the Construction Department.

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## PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

The position requires the ability to perform on site inspections near moving traffic on the travel way. The incumbent will perform extensive walking and occasional bending to inspect a variety of materials. The position requires occasional lifting of 50 plus pounds. Incumbent must work effectively while facing impending deadlines and unforeseen obstacles. Incumbent must be able to effectively and tactfully deal with various individuals. The incumbent is required to pick up and move heavy buckets of samples and move heavy equipment. Possession of a valid California driver's license is required to operate a State vehicle.

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## WORK ENVIRONMENT

The base of operation will be the Materials Lab in Kearny Mesa. While in the office setting he/she will be working in a climate controlled environment with artificial lighting. On occasion, the incumbent may be required obtain samples in the field and to travel for training and other State Business. On occasion, the incumbent may be required to work overtime in order to meet critical construction needs.

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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.)

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EMPLOYEE (Print)

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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.

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SUPERVISOR (Print)

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SUPERVISOR (Signature)

DATE

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