

**POSITION DUTY STATEMENT**

PM-0024 (REV 7/2014)

CLASSIFICATION TITLE Transportation Engineering Technician	OFFICE/BRANCH/SECTION North Region Construction
WORKING TITLE Construction Materials Tester/Inspector	POSITION NUMBER 903-502-3175-
	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 the supervision of the District Materials Engineer (a Senior Transportation Engineer), on behalf of an "Accredited Laboratory", the incumbent performs contract verification and acceptance testing (AASHTO, ASTM and California Test Methods), field investigations of materials, assists in pavement evaluation and design by testing materials, assists in field investigations and gathering of data for analysis, and transport and proper handling of materials for various construction projects.

**TYPICAL DUTIES:**

Percentage	Job Description
Essential (E)/Marginal (M) <sup>1</sup>	
50% E	Under direction of the Laboratory Lead Worker, performs a wide variety of technical testing in materials engineering work. Performs materials testing with minimal supervision following California Test Methods, American Association of State Highway and Transportation Officials (AASHTO) test methods, and American Society for Testing Materials (ASTM) test methods. Prepares samples and applies proper handling techniques transporting and/or shipping to Translab or other materials testing laboratories.
25% E	Receives samples, log sample in, prepares samples for testing, prepares necessary process testing for asphalt Job Mix Formula Verification and mix designs using specified test methods and Department policy, then completes data input into standard testing forms. Reviews completed test results and advises Laboratory Lead Worker of any inconsistencies. Determines the calibration factors for different aggregates as it relates to the asphalt binder content.
10% E	Throughout District 3, may perform pavement sampling by coring, plant inspections, or MPQP as allowed by laboratory testing workload. Prepare samples for asphalt and concrete for independent assurance testing and certifications.
10% E	Physically assists in the calibration of testing machines and equipment on a routine basis. Ensures equipment is properly cleaned, maintained and work areas are safe and clean for all staff and guests.
5% M	Interprets contract specifications and determines applicable tests for samples to meet contract compliance. Performs other miscellaneous duties as required including maintaining project files, preparation by written or computer work of technical presentations, attending training and meetings, and handling phone inquiries.

<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.

**KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS**

Knowledge of, or ability to quickly learn:

- Soil, asphalt, HMA, concrete and construction materials testing and sampling techniques, per Caltrans, AASHTO and ASTM test methods.
- Efficiently acquire certifications in test methods used in highway construction and for materials investigation.
- Knowledge and understanding of the California Standard Specifications and Contract Plans.

**ADA Notice**

For individuals with sensory disabilities, this document is available in alternate formats. For information, call (916) 445-1233, TTY 711, or write to Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

## POSITION DUTY STATEMENT

PM-0824 (REV 7/2014)

---

• Ability to use standard computer programs ie. Microsoft Word, Microsoft Excel, Microsoft Outlook, and Filemaker.  
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 with respect and cooperatively to carry out duties.

Analytical Requirements: Requires the analytical ability to interpret specification requirements for materials and ability 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 ability to pass tests for Independent Assurance Test Certifications (IAT). Must have basic knowledge of spreadsheets and ability to use them to perform materials testing-related calculation. Basic math skills must include algebra and geometry. Basic writing skills are also mandatory for this job.

---

### 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.

---

### PUBLIC AND INTERNAL CONTACTS

Day to day contacts with Construction or other functional units 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.

---

### PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

Physical Requirements: Employees will be required to stand or sit for long periods of time operating various types of laboratory equipment or video display terminal. Employee will also be required to move large or cumbersome samples weighing in excess up of 50 lbs repeatedly into and through out the Olivehurst Materials Laboratory. Employees must be able to work in noisy and dusty conditions, and may be required to wear a respirator and safety glasses 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.

---

### WORK ENVIRONMENT

While at the base of operation, employees 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.

# POSITION DUTY STATEMENT

PM-0924 (REV 7/2014)

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