

**CALIFORNIA DEPARTMENT OF TRANSPORTATION
DUTY STATEMENT**

CLASSIFICATION TITLE	DISTRICT/DIVISION/OFFICE	
Transportation Engineer, Civil	DES-Materials Engineering and Testing Services, Concrete Materials Testing Branch	
WORKING TITLE	POSITION NUMBER	EFFECTIVE DATE
Transportation Engineer, Civil	559-318-3135-xxx	October 2014

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 direction of a Senior Bridge Engineer, the employee serves as a Technical Manager in the field of Quality Assurance/Quality Control of concrete material testing within the Office of Structural Materials (OSM) Concrete Materials Testing Branch (CMTB). The primary function of the Office of Structural Materials (OSM) is to ensure that materials and products used by the California Department of Transportation (Caltrans) construction projects comply with contract requirements. The Technical Manager is instrumental in obtaining and maintaining AASHTO accreditation and ensures compliance with ASTM C1077 and AASHTO R18. The Technical Manager must be familiar with California Test (CT) methods and American Concrete Institute (ACI) test methods for the AASHTO Accreditation Program.

TYPICAL DUTIES:

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

60% (E) Assists the Concrete Materials Testing Branch (CMTB) supervisor in technical matters related with the Concrete Materials Testing Laboratory accreditation by the American Association of State Highway and Transportation Officials (AASHTO) Accreditation Program (AAP). Acts as a Technical Manager and is responsible for assisting with the technical operations needed to ensure compliance with the relevant clauses of ASTM C1077: "Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation," AASHTO R18: "Standard Recommended Practice for Establishing and Implementing a Quality Management System for Construction Materials Testing Laboratories," ISO/IEC 17025: "General requirements for the competence of testing and calibration laboratories" and A2LA "General requirements for laboratories accreditation."

- 10% (E) Assists the Concrete Materials Testing Branch (CMTB) supervisor in technical matters related with analysis, quality assurance testing and special investigations pertaining to concrete materials, including preparation of test specimens, maintenance of test facilities, test fixtures, and equipment calibration.
- 10% (E) Participates in miscellaneous activities including training programs, lab tours, meetings, and assists supervisor with his/her duties as requested.
- 10% (E) Consults in person or by telephone with Headquarters units such as Structures Design, Construction, Caltrans Districts, and other offices and branches within METS concerning concrete materials testing.
- 10% (M) Participates in various Technical Committees including, but not limited to: the Concrete Committee, the Source Inspection Committee, the Mechanical Testing Committee, the Welding & Steel Committee, and the Consistency Committee. In this capacity prepares, reviews, edits, or recommends changes to plans, specifications and test methods.

SUPERVISION EXERCISED OVER OTHERS

Does not supervise others.

KNOWLEDGE, ABILITIES AND ANALYTICAL REQUIREMENTS

A well-rounded education and experience in the field of civil engineering is required. Materials testing and structural engineering experience is desirable. The incumbent should be familiar with Caltrans Standard Plans and Specifications, ASTM, ANSI, AWS, AASHTO and other related specifications. The position requires the ability to analyze situations, materials and test data to perform structural engineering. Proficiency with computers and computer software is required.

Employee must have the ability to communicate clearly and efficiently with supervisor, other members of the Division of Engineering Services, and the public. Employee must also have command of basic computer applications such as Lotus Notes®, Microsoft® Excel, FileMaker Pro®, Microsoft® Word, and Caltrans custom-made applications.

Employee must have the ability to establish and maintain good and professional working relationships with other Department units, the fabricating industry and the contractor on Department projects.

CONSEQUENCE OF ERROR/RESPONSIBILITY FOR DECISIONS

Errors can lead to the acceptance and incorporation of improper or inferior materials in Caltrans construction and maintenance projects, resulting in decreased service life and effectiveness, or possible structural failure of a highway bridge, traffic barrier, light pole, etc. This can result in the loss of substantial amounts of government funds and can have direct effect on the lives and safety of the traveling public.

PUBLIC AND INTERNAL CONTACTS

In the course of carrying out his or her duties, employee will maintain close communication with other personnel. He or she will routinely confer with other State representatives both within and outside Caltrans to transmit or obtain relevant information.

PHYSICAL, MENTAL AND EMOTIONAL REQUIREMENTS

Employees may be required to sit for long periods of time (1) using a keyboard and video display terminal and (2) reviewing and auditing data. Employee may be required to sustain the mental activity needed for writing, auditing, problem solving, analysis and reasoning; may be required to develop and maintain cooperative working relationship and respond appropriately to difficult situations. Employee may be required to stand for long periods of time; pull, push and squat to examine materials and products; climb uneven terrain; maintain mental awareness and physical agility when working in the proximity of the motoring public. Employee will be required to drive a motor vehicle. Employee may occasionally be required to move equipment and test materials that require lifting up to 50 lbs.

WORK ENVIRONMENT

The majority of the time, the employee will work in a climate-controlled office. Occasionally, the employee will work in the lab and may be exposed to dirty surfaces and equipment, odors, hot liquids, flames and hot equipment. The employee may occasionally 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.)

Employee's Name (please print)

Employee's Signature

Date

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

Supervisor's Name (please print)

Supervisor's Signature

Date