

POSITION DUTY STATEMENT

PM-0924 (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 an Area Construction Engineer (a Senior Transportation Engineer), the incumbent performs construction inspections and field investigations of materials used in construction projects. Must possess a current valid driver's license.

TYPICAL DUTIES:

Percentage		Job Description
50%	E	Perform field investigations and laboratory analysis of materials being used in construction projects; will perform controlled tests and checks performance of construction materials, soils, aggregates, cement, asphalt, concrete, and other construction materials. Analyze and approve materials, incorporated in nonstandard major structures. Incumbent is required to be certified in ASTM and California Test Methods (CTM). Perform tests on construction materials to determine their compliance with the Standard Specifications applicable to the year the job is bid. Duties include miscellaneous work including, handling lab equipment and materials weighing up to 50 lbs. Performs material testing in accordance with established safety protocols.
25%	E	Perform compliance inspections of Hot Mix Asphalt (HMA) Plants and Portland Cement Concrete (PCC) plants during construction projects insuring compliance with plans and specifications of construction projects. Adjust, maintain, and calibrate materials testing equipment used to determine compliance with Specifications during construction projects.
20%	E	Perform inspections of construction projects to ensure compliance with plans and specifications. Incumbent makes Assistant Resident Engineer (ARE) diaries of contractor's personnel, equipment, and materials used for performing contract work. Assists in the preparation of and processing of Extra Work Bills (EWB's), checking ARE diaries to verify EWB hours billed.
5%	M	Perform miscellaneous inspection duties and nonprofessional engineering work as assigned on various construction projects.

¹ESSENTIAL 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.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

Must have working knowledge of construction materials specifications, PCC and HMA plants and must be proficient in California Test Methods. Knowledge of methods of proportioning and handling PCC and HMA, handling of asphaltic oils and emulsions, testing of materials, computer application to transportation engineering; factors which influence the impact of highways and other transportation facilities on the environment; principles and practices involved in utility relocation. Must understand very basic design engineering principles.

ADA Notice

For individuals with sensory disabilities, this document is available in alternate formats. For information, call (916) 446-1233, TTY 711, or write to Records and Forms Management, 1120 N Street, MS-69, Sacramento, CA 95814.

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Ability to research and compile data and prepare calculations for a variety of routine transportation improvement projects. Ability to make accurate engineering calculations. Must have the ability to read and write English, at a level required for successful job performance; communicate effectively orally and in writing to perform assignments. Make accurate engineering calculations; understand very basic design engineering principles; understand and use basic algebra and geometry; ability to research and compile data and prepare calculations for a variety of routine transportation improvement projects.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

Incumbent is responsible for determining the acceptability of materials in relation to the Specifications; errors may lead to inaccurate tests, with subsequent structural failure of roadbeds or contractor's claims due to errors in testing, which leads to rejection of satisfactory materials and work. Incumbent will be responsible to make accurate engineering calculations of a routine nature; apply sound engineering principles to various routine engineering activities; take effective action to avoid delays. Misinformation or incomplete information could result in incorrect or late payments to the Contractor.

PUBLIC AND INTERNAL CONTACTS

Contact with Resident Engineers, Caltrans workers, contractors' employees and engineering consultants.

Must be able to establish and maintain friendly and cooperative relations with those contacted in the course of the work to transmit or obtain relevant engineering information.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

Incumbent may be required to sit for long periods of time using a keyboard and video display terminal. Incumbent will be required to stand for extended periods of time, walk on slopes or uneven terrain, move and transport bags of material samples to Materials Labs. May occasionally be required to move equipment and testing materials weighing up to 50 lbs.

Must maintain a cooperative working relationship within the working environment, with peers, subordinates, contractors and their employees. Must possess the ability to work independently, effectively, and efficiently to coordinate multiple assignments and tasks. Must be able to analyze and prioritize work situations and take effective action to resolve problems encountered.

WORK ENVIRONMENT

When at their base office setting, incumbent may work in a climate-controlled office with artificial lighting, etc. Incumbent will be subjected to noise, odors, dust, extreme weather conditions, etc. Incumbent will work with and about a variety of materials, construction and testing equipment.

Night work, frequent travel and long-term assignments throughout the North Region may be required. Incumbent will transport and test material samples and do other non-professional engineering work as assigned.

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

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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