

POSITION DUTY STATEMENT

PM-0924 (REV 7/2014)

CLASSIFICATION TITLE Senior Transportation Engineer (Specialist)	OFFICE/BRANCH/SECTION 56/Maintenance/Planning & Programming	
WORKING TITLE Senior Pavement Engineer	POSITION NUMBER 913-601-3161-XXX	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 direction of the Office Chief, a Supervising Transportation Engineer, the Senior Transportation Engineer will oversee, analyze, provide/develop guidance and recommendations on pavement issues affecting the engineering, preservation, and management of pavements on the State Highway System. The incumbent is responsible for performing engineering analysis and review of pavement technologies to provide recommendations and direction to the Office Chief, State Pavement Engineer. The incumbent will perform, coordinate, and/or monitor technical studies and prepare and review reports on complex problems/issues relating to pavement and pavement funds.

TYPICAL DUTIES:

Percentage		Job Description
Essential (E)/Marginal (M) ¹		
50%	E	Serves as Planning & Programming Liaison and team leader in the developing, maintaining, and improving the Pavement Management System (PaveM) database for State Highway Operation and Protection Program (SHOPP) and Maintenance projects. Maintains and updates SHOPP amendments and financial work plans in PaveM to develop Legislative Analyst reports. Performs network analysis in complex problems and issues affecting the Department relating to pavement engineering, construction, and preservation. Provides training through classes, on-line training, on the job, or webinars.
30%	E	Provides and/or oversees the development and updating of statewide pavement engineering technical standards, methodologies, and procedures for inclusion in the Highway Design Manual (HDM), Maintenance Manual and Maintenance Technical Advisory Guide (MTAG), specifications, plans, software, and other engineering guides and tools. Keeps abreast of the "state of the practice" in these areas and incorporates current technology into the standards, policies, and procedures. Assists in the development and update of specialized training on pavement engineering, construction and preservation.
10%	E	Performs special studies and analysis on complex problems and issues affecting the Department relating to pavement engineering, preservation, and management. Keeps abreast of the "state-of-the-practice" in the area of pavement engineering, preservation, and management. Incorporates current technology into the pavement management practices including data collection.
5%	E	Evaluates and prepares recommendations on proposed legislation affecting the Department; prepares routine and technical correspondence; attends and participates in technical meetings, conferences; and prepares technical presentations.
5%	M	Coordinates and maintains content on the pavement website. Serves as coordinator for pavement related training, conferences. Represents the Pavement Program on Department teams.

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**ADA Notice**

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No direct supervision responsibilities. Serves as a lead person for pavement related issues, studies as determined by the Office Chief. Serves as coordinator and/or project manager for pavement related projects/products with the other units and specialists in the Pavement Program, external agencies, industry representatives, and the general public.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

Knowledge of Caltrans' organization and Departmental policies; pavement policies (design, maintenance, management, etc.), procedures, standards, and other factors that need to be considered in the engineering, construction, maintenance, and rehabilitation of the pavement structural section. Experience with Caltrans project development procedures both for capital outlay and maintenance projects, as well as, engineering experience related to design, construction and maintenance operations with a particular emphasis on pavements. Organizational relationships, both within and outside of Caltrans that pertain to the design, construction, operation, maintenance, and evaluation of performance of pavement structures. The basic principles of engineering economics, such as life cycle cost analysis and benefit/cost analysis, as applied to pavement type selection, planning, preservation, and management.

Ability to, based on engineering experience and expertise, to act independently and exercise good judgment on matters relating to the planning and engineering of pavement structures for transportation facilities. Based on engineering experience and expertise, to act independently and exercise good judgment on matters relating to the planning and engineering of pavement structures for transportation facilities. Effectively communicate and coordinate both orally and in written form with management and employees of the Division of Pavement Management, in the Corporate Headquarters, Districts, industry, and other personnel outside the organization. Work effectively with computers, databases, programs and coordinate with Information Technology personnel and external partners. Write technical reports and be able to interpret results from technical studies. Assimilate technical and procedural input from various sources on a given subject, to evaluate that input, to develop alternative courses of action, and to make objective recommendations and to follow-up with implementation through written and oral communications. Comprehend and analyze specification requirements, survey procedures, and test methods, as they relate to pavement engineering, preservation, and management; capable of developing workable, effective specifications; and, capable of analyzing survey/test results and understand the significance and application of said methods. Establish and maintain friendly and cooperative relations with those contacted in the course of the work, and to communicate effectively.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

Based on engineering experience and expertise, this position is responsible for providing accurate and thorough guidance on pavement engineering, preservation, and management standards, policies and procedures. Determines research data from all pertinent functional areas in the Pavement Program, Headquarters, Districts, as well as from the FHWA, and other Local, State, and Federal agencies. Caltrans' input is especially pertinent from the areas of engineering, construction, operations, preservation, and management. The consequences of not considering all pertinent factors and input in decisions and actions taken could result in significant economic loss to the State as well as inconvenience and economic loss to highway users.

PUBLIC AND INTERNAL CONTACTS

Incumbent must work well, and communicate with other personnel in the Pavement Program, other Corporate Headquarters functional units, , the districts, other state agencies, FHWA, Local Agencies, representatives of industry, academia, consultants, and the general public to provide the necessary analysis and recommendations on pavement structural sections for transportation projects.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

The incumbent may be required to sit for long periods of time, at their desk, using a keyboard, and video display terminal. Manual dexterity, and sustained periods of mental activity are needed for report reviewing, and writing; plus, for problem solving, analysis and reasoning. The incumbent may also be required to travel via airplanes, use rental cars, vans, and buses; stay overnight in motel/hotel accommodations; and, may be required to drive a motor vehicle. Employee may occasionally be required to move materials weighing up to 50 lbs, move large and/or cumbersome plans, and diagrams from one office location to another. The incumbent will need to establish and maintain friendly and cooperative working relationships with those contacted in the course of the work, and communicate effectively by recognizing emotionally

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charged issues or problems, acknowledging the various responses, and responding appropriately and professionally to difficult situations.

Possession of a valid certificate of registration as a civil engineer issued by the California State Board of Registration for Professional Engineers is required.

WORK ENVIRONMENT

While at base of operation, the incumbent will work in a climate-controlled office under artificial lighting. Occasionally, the employee will be required to travel within and without the State to meetings, construction projects, and material production plants. The incumbent will also be required to occasionally work outdoors which may cause exposure to dirt, dust, noise, uneven ground surfaces, and allergens in the air and/or hot or cold temperature extremes.

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
