

POSITION DUTY STATEMENT

DOT PM-0924 (REV 08/2024)

CLASSIFICATION TITLE Transportation Engineer (Civil)	OFFICE/BRANCH/SECTION Materials&Infrastructure/Roadway&Multidisciplinary Integration	
WORKING TITLE Research Engineer	POSITION NUMBER 913-155-3135-013	REVISION DATE 11/05/2024

As a valued member of the Caltrans leadership team, you make it possible for the Department to provide a safe and reliable transportation network that serves all people and respects the environment.

GENERAL STATEMENT:

Under the direction of the Roadway and Multidisciplinary Integration (R&MI) Branch Chief (Senior Transportation Engineer), the Transportation Engineer (Civil) serves as a Research Engineer within the R&MI Branch to advance key research initiatives by identifying needs, proposing innovative solutions, and aligning projects with departmental goals. The incumbent develops and manages research projects which address critical challenges and explores new approaches to improve the design, construction, and maintenance of California's transportation system; the projects span multiple disciplines, including pavements, structures, geotechnical engineering, construction, and maintenance. The incumbent assists senior staff by preparing research proposals, articulating project needs and objectives, developing and coordinating contract research, managing executed agreements, and overseeing Transportation Pool-Fund studies. The incumbent disseminates research results and supports implementation efforts. The incumbent collaborates with Caltrans Districts, Divisions, and Programs, other Departments of Transportation, academia, and private industry to ensure high-quality outcomes. Furthermore, the incumbent evaluates proposals submitted to the Department or through national research organizations, such as the National Cooperative Highway Research Program (NCHRP).

CORE COMPETENCIES:

As a Transportation Engineer (Civil), the incumbent is expected to become proficient in the following competencies as described below in order to successfully perform the essential functions of the job, while adhering to and promoting the Department's Mission, Vision, Values, Strategic Imperatives and Goals. Effective development of the identified Core Competencies fosters the advancement of the following Leadership Competencies: Change Commitment, Risk Appetite, Self-Development/Growth, Conflict Management, Relationship Building, Organizational Awareness, Communication, Strategic Perspective, and Results Driven.

- **Creativity and Innovation:** Thinks beyond the confines of traditional models to recognize opportunities, seek creative solutions and take intelligent risks. (Safety First - Innovation)
- **Decision Making:** Makes critical and timely decisions. Takes charge. Supports appropriate risk. Makes challenging and appropriate decisions. (Safety First - Integrity)
- **Continuous Professional Development:** Seeks to obtain knowledge and improve performance while supporting others in doing the same. (Cultivate Excellence - Engagement)
- **Problem-solving and Decision-making :** Identifies problems and uses logical analysis to find information, understand causes, and evaluate and select or recommend best possible courses of action. (Advance Equity and Livability in all Communities - Integrity)
- **Teamwork/Partnership:** Develops, maintains, and strengthens partnerships with others inside or outside of the organization through effective communication and collaboration. (Cultivate Excellence - Engagement, Equity)
- **Customer Focus:** Considers, prioritizes, and takes action on the needs of both internal and external customers. (Enhance and Connect the Multimodal Transportation Network - Equity, Innovation, Integrity)
- **Communication:** Expresses oneself clearly in all forms of communication. Gives feedback and is receptive to feedback received. Knows that listening is essential. Keeps others in the Division and other functional units informed as appropriate. (Cultivate Excellence, Advance Equity and Livability in all Communities - Engagement, Pride)
- **Analytical Skills:** Approaches problems using a logical, systematic, and sequential approach. Weighs priorities and recognizes underlying issues. (Safety First, Cultivate Excellence, Enhance and Connect the Multimodal Transportation Network - Engagement, Equity, Innovation)
- **Computer literacy and application:** Appropriate knowledge of computer applications and other tools necessary to successfully perform tasks. (Cultivate Excellence - Equity)

TYPICAL DUTIES:

Percentage
Essential (E)/Marginal (M)¹ Job Description

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40%	E	Manages engineering research projects and Transportation Pool-Fund studies, which includes tracking progress, monitoring the schedule, reviewing and approving invoices for payment, coordinating and facilitating project progress meetings, preparing research notes and research results, disseminating findings, and supporting implementation efforts.
20%	E	Develops engineering related research proposals, including articulating project needs and objectives, scopes of work, budget proposals, and schedules. Assesses and scores research proposals to ensure alignment with program goals and research priorities. May be required to conduct preliminary investigations for proposed projects.
20%	E	Develops and coordinates contract research with the Division of Procurement and Contracts (DPAC), acting as a liaison between the customers (Caltrans Districts, Divisions, and Programs) and academia, other Departments of Transportation, and private industry to develop project scopes of work and review cost proposals, ensuring feasibility, accuracy, and alignment with program goals and available funding.
15%	E	Represents the Office of Materials and Infrastructure (OM&I) on internal Caltrans committees and task groups by providing input, sharing insights, and ensuring alignment with organizational goals and priorities. Additionally, the incumbent attends educational seminars, webinars, workshops, and conferences relevant to pavements, structures, geotechnical engineering, construction, and maintenance research.
5%	M	Performs other duties related to Civil Engineering as assigned by the Office Chief within the scope of the class.

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

This position does not supervise other employees. However, the incumbent may serve as a lead worker on a project-specific or technical committee basis, directing and reviewing the work of others in broad research areas.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

Advanced education in Civil Engineering, along with additional academic coursework or equivalent training and experience in pavements, structures, geotechnical engineering, construction, and/or maintenance. The ability to gather, compile, analyze, and interpret research data. Capable of preparing concise technical reports and expressing ideas effectively, both orally and in writing. Knowledge of research methods and equipment, along with experience in conducting, administering, and managing research projects. Familiar with Federal and State regulations, as well as the Department's mission, goals, programs, and policies related to the performance and feasibility of research. The ability to maintain cooperative relationships with project stakeholders, including academia and district personnel. Knowledge of basic computer skills and be able to learn and use data-analysis software effectively.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

This position is responsible for the timely completion of pavements, structures, geotechnical engineering, construction, and maintenance research studies. The incumbent acts as a departmental specialist to answer questions and provide reports concerning these research studies. Incorrect decisions may delay the completion of the research studies, which could result in the loss of resources, funding support, federal reimbursement, legislative support, and the opportunity to solve critical problems concerning the various department's programs.

PUBLIC AND INTERNAL CONTACTS

The incumbent has regular contact with research customers, including departmental managers, staff, and public employees (federal government and other states). The incumbent will also serve as a peer to research partners, including contractors conducting research and advisory panels reviewing research findings. These partners include academic personnel, consultants, public employees (federal government and other states), and industry representatives. The incumbent will not typically communicate directly with the general public but may participate in and make presentations at technical conferences primarily involving technical specialists.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

The incumbent may be required to sit or stand for long periods of time using a keyboard and video display terminal.

WORK ENVIRONMENT

While at the base of operation, the incumbent will work in a climate-controlled office under artificial lighting. The incumbent may also be required to travel and work outdoors and may be exposed to dirt, noise, uneven surfaces, and/or extreme heat or cold.

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This position may be eligible for telework. The amount of telework is at the discretion of the Department and is based on Caltrans's evolving telework policy. Caltrans supports telework, recognizing that in-person attendance may be required based on operational needs. Employees are expected to be able to report to their worksites with minimum notification if an urgent need arises. The selected candidate will be required to commute to the headquartered location as needed to meet operational needs. Business travel may be required, and reimbursement considers an employee's designated headquartered location, or primary residence, and may be subject to CalHR regulations or applicable bargaining unit contract provisions. All commute expenses to the headquartered location will be the responsibility of the selected candidate.

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.)

I agree that by providing my electronic signature for this form, I agree to conduct business transactions by electronic means and that my electronic signature is the legal binding equivalent to my handwritten signature. I hereby agree that my electronic signature represents my execution or authentication of this form, and my intent to be bound by it.

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

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