

POSITION DUTY STATEMENT

PM-0924 (REV 9/2013)

CLASSIFICATION TITLE Transportation Engineer (Civil)	OFFICE/BRANCH/SECTION HQ/Division of Research, Innovation & System Information/	
WORKING TITLE Traffic Engineering	POSITION NUMBER 913-193-3135-913	EFFECTIVE DATE 5/28/2014

As a valued member of the Caltrans team, you make it possible for the Department to improve the mobility across California by being innovative and flexible; reporting to work as scheduled; working cooperatively with team members and others; and treating others fairly, honestly and with respect. Your efforts are important to each member of the team as well as those we serve.

GENERAL STATEMENT:

Under the general supervision and direction of a Senior Transportation Engineer, the incumbent provides oversight and monitors research related to traffic operations and traffic modeling, and assists university researchers and practitioners in various transportation/traffic engineering studies and evaluations. In this capacity, the incumbent conducts traffic engineering and operational improvement studies required for various research projects. Duties include, but are not limited to:

TYPICAL DUTIES:

Percentage		Job Description
30%	Essential (E)/Marginal (M) ¹ E	Assists Caltrans staff, university researchers, local agency personnel, and private consultants in research projects related to traffic engineering, traffic operational improvement, traffic modeling and simulations, adaptive ramp meter and intersection signal control strategies, transportation data collection and dissemination testing and evaluation. These tasks will require field investigations, site surveys, and inspection of related work.
30%	E	Investigates and implements integrated transportation management strategies and multi-modal approaches involving Advanced Transportation Management Systems (ATMS) and Advanced Traveler Information System (ATIS). Conducts simulations and utilizes computer software products, research prototypes and privately developed technologies to assess new concepts, scenarios and effects of strategies on the transportation networks.
15%	E	Tracks projects, monitor related schedules and budgets, compiles and maintains project data on computer systems for use by the Branch, Office or the Division. Participates in meetings and conducts presentations with other government agencies, private industry, academia, and the public. When the above areas of responsibility are involved, develops related written reports, program narratives, and audio-visual presentations for technical and lay audience.
10%	E	Develops and negotiates agreements and assist with the conduct of complex transportation research and implementation projects with the private sector, public agencies and academia. Prepares estimate of resources required to perform engineering services and provide detailed description of scope of work involved.
10%	E	Prepares or provides assistance in the preparation of Request For Proposals (RFPs), consultants proposals review, consultants selection, contract preparation and contract negotiation/execution for the Testbed Projects, in coordination and cooperation with various internal and external stakeholders.
5%	M	Negotiates and develops specifications, guidelines, implementation plans, methods, and processes for the conduct of contract research projects with private sector, other public agencies, and academia.

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.

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SUPERVISION OR GUIDANCE EXERCISED OVER OTHERS

The position will not require direct supervision over others. However, the incumbent may periodically act as lead person to provide direction for technicians, other staff and student assistants as the need arises.

KNOWLEDGE, ABILITIES AND ANALYTICAL REQUIREMENTS

- Must have academic course work at the university level, or equivalent training and experience, in the areas of physics, mathematics, transportation, civil/traffic engineering, and traffic modeling and simulations.
- Must be familiar with computer oriented processes, personal computers, and applications.
- Must have knowledge of methods, materials and equipment used in designing, constructing, maintaining and operating transportation facilities.
- Must be familiar with Caltrans' program on research and development of new technology, Federal and State regulations that apply to the work of the Division, and with the Department's programs and policies.
- Must be able to identify the application of existing and emerging technologies to improve the system operation and modal integration and to make recommendations on innovative approaches that result in successful solutions.
- Must be able to communicate effectively both orally and in writing and work cooperatively with Caltrans employees in other units/departments as well as with the staff of local public agencies and private sector.

Possession of registration as a civil Engineer in California is desirable. Knowledge of the general principles and techniques of applied research including technology evaluation, feasibility analysis, and experimental design and field acceptance test practice is desirable. Knowledge and ability to manage and administer contracts is a plus. Good understanding of transportation operations and management systems including hardware and software used for analyzing traffic conditions and implementing strategies is a must.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

Errors in judgment or decisions could affect public safety or result in tort liability for the Department. The incumbent is responsible for implementing elements of Division of Research and Innovation plan and projects in the field of transportation management and information systems. With multi million dollar budgets involved, these projects must be conducted and deployed properly to ensure that expenditures are cost effective and appropriate. Incorrect decisions could result in loss of funding, resources, and legislative support and may adversely impact the opportunity to solve critical transportation problems.

PUBLIC AND INTERNAL CONTACTS

The employee will routinely contact other Caltrans personnel, contractors, engineering consultants, and representatives of the Federal Highway Administration and industry representatives to transmit or obtain relevant engineering information. These contacts will be verbal or written, as needed, to perform assignments.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

Employee may be required to sit for long periods of time using a keyboard and video display terminal. He or she may also be required to move large or cumbersome plans and diagrams from one location to another.

WORK ENVIRONMENT

While at their base of operation, employees will work in a climate-controlled office under artificial lighting. Employee may also 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.)

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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