

POSITION DUTY STATEMENT

PM-0924 (REV 7/2014)

CLASSIFICATION TITLE	OFFICE/BRANCH/SECTION	
Senior Transportation Electrical Engineer, Supervisor	D04/Traffic operations/Electrical Systems	
WORKING TITLE	POSITION NUMBER	EFFECTIVE DATE
TMS Corridor Manager (Northern)	904-352-3164-xxx <i>010</i>	07/01/2015

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 a Supervising Transportation Engineer, the Senior Transportation Electrical Engineer (STEE) as the corridor manager, manages the operation and development of a variety of highway and TMS/ITS electrical installations and transportation management systems (TMS) as part of the pilot corridor study. The STEE Verifies that TMS along the corridor are configured and operated with optimum efficiency.

The Senior is also responsible for ensuring that he/she and his/her staff develop corridor study report and monitor standards for customer service for both internal and external customers.

TYPICAL DUTIES:

Percentage	Essential (E)/Marginal (M) ¹	Job Description
30%	E	Supervises the commissioning, configuration and operation of Traffic Management Systems (TMS) along the identified study corridor to efficiently manage congestion and reduce delay. The TMS elements may include, but is not limited to Advanced Transportation Managed Systems (ATMS) hardware, software and network, closed circuit television (CCTV) cameras, changeable message sign (CMS), traffic monitoring stations and highway advisory radio (HAR) systems.
20%	E	Directs staff in the operation of Caltrans traffic signals that make up the study corridor. Ensure that they are operated safely and with maximum efficiency along the corridor. Ensures that the signals are properly integrated into the overall corridor management strategy. The incumbent will also ensure that Caltrans signals are coordinated with those of the local agencies at the jurisdictional boundaries.
20%	E	Manages the operation of Ramp Meters (RM) along the study corridor. Oversees technical and operational staff for the configuration and calibration of RM system along the corridor to ensure efficient operation.
10%	E	Reviews TMS element infrastructure As-builts and system documentation prepared by staff. Ensures that documentation is complete and accurate.
10%	E	Leads staff to collect, analyze and report traffic data as part of the TMS Corridor study. Attend regular status meetings and present results. Provide updates to the HQ Corridor Study Manager and technical lead as to the performance status of the corridor.
10%	E	Ensures that the TMS inventory database is current and is consistent with the Statewide TMS asset management database. Verify proper timesheet charging practices are consistent with workload standards as defined in the current Work Activities Charging Instructions (WACI). Verify that all staff TMS support activities are properly captured in the Statewide TMS tracking system (Trac).

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

The incumbent receives direction and supervision from a Supervising Transportation Engineer. The incumbent supervises TMS Corridor Engineers, Transportation Electrical Engineers, and additional technical staff as needed.

ADA Notice

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KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

The Senior Transportation Electrical Engineer, Caltrans, must have knowledge of Electrical systems, which apply to automated traffic surveillance and control. The incumbent must also have knowledge and experience in the field of computer networking and electronic communications. Knowledge of Caltrans' organization, department policies and financial constraints and procedures is required. Also requires expert knowledge on design policies, procedures, standards and other factors relating to design of transportation facilities. Must have ability to effectively communicate and coordinate both orally and in written form, with all levels of management and employees in headquarters, in the districts and outside the organization. He/She must possess a Professional Engineer's license from the State of California in Electrical Engineering.

The Senior Engineer should have the ability to: administer an engineering program; plan and direct the work of others ; be able to work effectively with others as an interdisciplinary team member; express ideas and communicate effectively both orally and in writing; prepare technical correspondence and comprehensive reports; address an audience effectively and participate in public presentations; analyze situations accurately and adopt an effective course of action.

He/She must be able to determine data requirements and proper mathematical, statistical or analytical procedures for studies. Applies logic to obtain solutions, recognize erroneous data, and review projects for overall soundness.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

The Senior Transportation Electrical Engineer is responsible for the decisions that affect the development and operations of traffic management systems. Engineering evaluations and judgments may affect Department programs, projects and credibility. Errors in judgments could result in adverse impacts to highway traffic performance including increased delay, congestion, and potential for tort liability.

PUBLIC AND INTERNAL CONTACTS

Frequently required to meet with other Caltrans staff, law enforcement personnel, and staff from other agencies, engineering firms, and the public. Meet periodically with HQ and other District personnel to report status of the BCP corridor study.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

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

Mental Requirements include ability to sustain mental activity necessary for report writing, problem solving, analysis and reasoning when it comes to judgment that relates to public safety, emergencies and traffic safety. Must have the ability to multi-task, adapt to changes in priorities, and complete tasks or projects on time. Ability to sit for prolonged periods of time and may be required to work beyond normal work hours during emergencies. Must grasp the essence of new information and master new technical and business knowledge. Must maintain and follow safe work practices, including operation of vehicle amber lights in an appropriate and safe manner.

Emotional requirements include ability to develop new insights into situations and apply innovative solutions to make organizational improvement. Ability to resolve emotionally charged issues reasonably and diplomatically. Must be able to develop and maintain cooperative working relationships. Behaves in a fair and ethical manner toward others and demonstrates a sense of responsibility and commitment to public service.

WORK ENVIRONMENT

While at their base of operation, employees will work in a climate-controlled office under artificial lighting. However, due to periodic problems with the heating and air conditioning, the building temperature may fluctuate.

Occasional travel to the field will be required as necessary to provide technical direction to staff as to how to configure or troubleshoot various TMS/ITS elements. Employees will be exposed to walking on varied terrain and in various climates.

Incumbent must possess a valid Driver's License and maintain the license in good standing at all times.

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

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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