

POSITION DUTY STATEMENT

PM-0924 (REV 7/2014)

<p>CLASSIFICATION TITLE Sr. Transp. Electrical Engineer (Supervisor)</p>	<p>OFFICE/BRANCH/SECTION Headquarters / Division of Traffic Operations Office of Technology</p>	
<p>WORKING TITLE Branch Chief, Transportation Management Systems Engineering</p>	<p>POSITION NUMBER 913-350-3164-xxx</p>	<p>EFFECTIVE</p>

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 general direction of the Chief, Office of Technology (Supervising Transportation Electrical Engineer), the Transportation Management Systems Engineering Branch Chief has charge of difficult electrical engineering work involving the supervision of journey level engineers and others engaged in traffic control systems, traffic management systems, and related activities. The branch chief manages a team of Intelligent Transportation Systems (ITS) practitioners in the development, deployment, and continuous engineering of a sustainable Transportation Management Systems (TMS) infrastructure. The incumbent, in partnership with district practitioners, divisions, and local agencies, provides leadership and guidance in continuously transforming the Department’s TMS into a high-performing and integrated multi-modal transportation system for the State of California.

TYPICAL DUTIES:

Percentage Essential (E)/Marginal (M) ¹	Job Description
30% (E)	<p>Hires, develops, trains and retains staff to deliver the aforementioned programs. Clearly and continuously communicates the organization’s mission, vision, and strategic management plan and strategies. Ensures that staff is familiar with the Division’s business plan and principles, and that they understand the office/branch expectations and duties as described in their duty statement. Provides staff the resources needed to perform their assigned duties successfully (e.g., tools, equipment, staff, materials). Schedules work assignments, establishes priorities, and directs the work of staff making adjustments as necessary due to changing priorities. Encourages innovative solutions from staff and serves as a role model by striving for continuous improvement. Practices active listening and creates an open communication environment that encourages staff to contribute ideas. Recognizes positive individual and group performance. Provides feedback on job performance to the employee that entails critical, constructive, and ideally oral and written feedback, through the regular monitoring of their productivity and work load. Prepares timely probation reports and individual development plans; provides training opportunities within the unit, and develops plans and tools to build strengths and close performance gaps. As necessary, employs the necessary actions to</p>

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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address performance issues (corrective, adverse, etc).

- 30% (E) As the TMS Support Functional Manager, manages a statewide program that promotes an optimally performing TMS infrastructure which includes central transportation management and information delivery systems, communications systems, and field monitoring and control systems. Coordinates statewide contracting out activities related to the engineering and life cycle support of TMS assets. Leads, advises and coordinates TMS engineering activities of district TMS Functional Managers in a cross matrix organizational fashion. Coordinates with system change control boards to ensure uniformity and continuity of TMS engineering practices. Develops statewide consensus on all matters relating to development, engineering, and standardization of TMS. Provides leadership, coordination advice, support and assistance, policy development, statewide tools and technical guidance. Represents statewide interests while appreciating district perspectives. Advocates for business improvements with other Headquarter divisions and processes. Shares best practices and priorities.
- 25% (E) Provides technical direction for the specification and acquisition of uniform and sustainable TMC systems. Directs and reviews the development and preparation of system specifications, contract documents for sustaining engineering; responds to inquiries from districts, other agencies, contractors, and suppliers regarding system specifications. Provides technical expertise for the life cycle planning and support of TMC systems, software, and networking equipment. Ensures that systems include means and measures for high availability, reliability, performance, capacity, and expansion. Provides technical direction for the advancement and standardization of central management and information delivery systems that are integrated into regional corridor management systems. Ensures that systems are developed using a standard systems engineering process and best practices. Establishes uniform software repositories, revision control, and standardized system documentation methodologies for TMS. Establishes knowledge-base for culminating TMS documentation including standard, interface specifications, equipment specifications; manuals.
- 10%(E) Monitors and reports on TMS performance and makes recommendations to resolve performance issues. Develops, maintains, and validates production units and workload standards to support allocation and resource requirements for their project codes. Reviews districts' unconstrained workload, operating expense and contract requests – provides input to the Office Chief. Develops proposed constrained workload hours, operating expense (OE) (including contracts) to balance statewide needs with available resources. Monitors labor charging practices for assigned project codes – identifies anomalies that are outside the norm to improve statewide consistency. Coordinates OE allocation to districts. Documents functional processes. Updates respective functional areas of the Traffic Operations Management Information System (TOMIS) Work

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Revised: 1/17/14

Last Reviewed: 3/10/15

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Activities and Charging Instructions (WACI).

- 5% (E) Prepares correspondence, issue papers, and reports; and performs special studies. Supports approval of TMS development, deployment, operation, and engineering support by developing Budget Change Proposals, Finance Letters, Feasibility Study Reports, audits, inventories, inquiries, in concert with the Divisions of Information Technology, Maintenance, and Budgets, as required by the Department of Finance, the Department of Finance, the Legislative Analyst Office.

SUPERVISION OR GUIDANCE EXERCISED OVER OTHERS

Directly supervises Transportation Electrical Engineers and student assistants. Responsible for statewide coordination of functional managers.

KNOWLEDGE, ABILITIES AND ANALYTICAL REQUIREMENTS

Knowledge of the general principles and techniques in managing technology programs and projects for electronics and software development in large organizations; the requirements for successful completion of each of the phases of the hardware and software development life cycle; the principles and techniques of personnel management and supervision; systems engineering methodology; concepts for developing and operating state-of-the art transportation management systems; relevant national ITS standards activities such as ITS America, National Transportation Communications for ITS Protocol, and the ITS National Architecture; project management, contract management and contract administration processes and techniques.

Knowledge of: Design and preparation of plans, specifications, and estimates for traffic control systems; electrical and electronic theory as applied to traffic control systems; principles and practices of traffic engineering as they apply to traffic control; various codes and field practices governing the design and installation of traffic control equipment; basic occupational safety and health regulations contained in the Title 8 Industrial Relations, Electrical Safety Orders, safety and health policies and procedures as contained in the Department's Injury and Illness Prevention Program, and the supervisor's role in maintaining an effective injury and illness prevention program; materials and construction costs for traffic control systems; digital electronics, microprocessors, and development of strategies for traffic control; computer-based traffic management equipment; principles and techniques of personnel management; a manager's/supervisor's responsibility for promoting equal opportunity in hiring and employee development and promotion, and for maintaining a work environment that is free of discrimination and harassment; planning and supervising the work of others.

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Ability to: Plan, lead, organize, direct, and supervise the work of others; establish and maintain cooperative relations with those contacted in the course of the work; promote equal opportunity in employment and promotion, and maintain a work environment that is free of discrimination and harassment; prepare correspondence and reports; communicate effectively; administer an engineering program; work effectively and partner 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; effectively lead and contribute to the department's strategic management, safety, health, equal opportunity and labor relations objectives.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

Responsible for the reliability and accuracy of all actions, decisions, and recommendations in his/her capacity. Proper use of equipment, correct methods analysis, and timely meeting of all deadlines. Inappropriate decisions or errors of judgment may lead to the loss of time and the ability to solve critical problems which will adversely affect the payback of expended effort and the loss of opportunities to increase the transportation efficiency and safety.

PUBLIC AND INTERNAL CONTACTS

Frequent contact with district and headquarters personnel is required to keep abreast of the needs and program requirements of the Department. Contact with: federal, state, county and legislative agencies and departments; public utilities; and telecommunications companies are required.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

The workload is occasionally subject to substantial, and unexpected changes within a short time period which requires that the incumbent quickly adapt behavior and work methods in response to new information/priorities, and unexpected obstacles; multi-task; effectively interact with many levels of people in a cooperative manner; be decisive; take appropriate actions; and complete tasks or projects with a short notice. The incumbent should be able to work effectively under pressure, maintain focus and intensity yet remain optimistic and persistent, even under adversity.

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The incumbent shall act in a fair and ethical manner toward others and demonstrate a sense of responsibility and commitment to public services; develop new insights into situations and apply innovative solutions to make organizational improvements; grasp the essence of new information and master new technical and business knowledge, particularly in the area of outreach; and value cultural diversity and other individual differences in the workforce.

The incumbent may be required to sit for long periods of time using a keyboard and video display terminal. The incumbent will occasional lift up to 25 pounds without assistance. Bending, stooping, and pulling may be required within the normal course of performing some of responsibilities associated with the positions.

WORK ENVIRONMENT

The incumbent 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. The incumbent must be willing to work outside normal working hours as needed. The environment is fast-paced, demanding and busy; and requires considerable flexibility in managing time, priorities and assignments. Vacations may be restricted during peak times.

The incumbent will be required to travel to meetings and provide training in classroom settings in other office buildings or sites and may be exposed to uneven surfaces, noise, and varying temperatures. The incumbent may occasionally travel out of state.

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.

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Supervisor (Print)

STAN SLAVIN

Supervisor (Signature)

Date

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