

**POSITION DUTY STATEMENT**

PM-0924 (REV 7/2014)

CLASSIFICATION TITLE	OFFICE/BRANCH/SECTION	
Senior Electrical Engineer, Caltrans (Supervisor)	DES/SD/OEMWWW	
WORKING TITLE	POSITION NUMBER	EFFECTIVE DATE
Electrical Supervisor, Maint. & Special Proj. Branch	559-260-3002-xxx	12/15/2014

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 Mechanical & Electrical Engineer, incumbent is responsible for directing, coordinating and supervising the work of an Electrical Maintenance Engineering Branch. Responsibilities include providing electrical engineering support for maintenance and construction of transportation facilities and the preparation of contract documents (electrical plans, specifications and estimates). Duties include, but are not limited to:

**TYPICAL DUTIES:**

Percentage		Job Description
35%	E	Essential (E)/Marginal (M) <sup>1</sup> Directly supervises electrical engineers and electrical engineering technicians. Writes reports, prepares correspondence. Requests resources, plans and manages tasks and resources necessary to accomplish delivery of products and services assigned to the branch. Reviews and approves time sheets, staff reports and recommendations. Ensures quality of products and services provided by the branch. Conducts employee appraisals, trains, coaches, and mentors staff.
35%	E	Directs and coordinates the work of teams providing maintenance support for transportation facilities and their associated electrical systems. Typical electrical systems include outdoor and indoor lighting, security, communication, fire-life safety, power and control systems. Typical facilities include stormwater pumping plants, bridges, office buildings, tunnels, safety roadside rest areas, maintenance stations, equipment shops, truck weigh and inspection stations, and toll structures. Maintenance support typically consists of conducting field inspections, troubleshooting electrical, mechanical, water & wastewater systems and writing reports. Maintenance support also includes emergency response for failures at critical facilities.
20%	E	Directs and coordinates the above personnel in providing design and construction support. Design support consists of developing contract documents (plans, specifications and estimates) for construction of transportation facilities and systems defined above. Construction support consists of technical advice, submittal review, intermediate/final field inspections of contractor's work and preparing reports.
05%	M	Directs and coordinates the above personnel in providing consultant review services. Services consist of reviewing contract documents for conformance with Department standards and governing codes.
05%	M	Acts as an electrical engineering consultant to Districts, Cities and Counties.

<sup>1</sup>ESSENTIAL 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**

Directly supervises the work of engineers and technicians. Supervision consists of scheduling, maintaining work quality, monitoring attendance, preparing Individual Development Plans. Must be familiar with Department's disciplinary process, safety policies, and employee conduct policies and directives.

**ADA Notice**

For individuals with sensory disabilities, this document is available in alternate formats. For information, call (916) 445-1233, TTY 711, or write to Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

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### KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

Knowledge and Abilities: Must have a valid certificate of registration as an Electrical Engineer. Must have a valid California Driver's license. Must have education equivalent to graduation from college with major work in electrical engineering. Must have knowledge of methods, tools, and equipment used in the design, construction and maintenance of transportation facilities; methods of design analysis for electrical phases of work described above including compliance with all applicable codes and regulations; principles and techniques of personnel management and supervision. Must have the ability to plan, direct and coordinate the work of a group of engineers and technicians; analyze situations and adopt an effective course of action; dictate correspondence and prepare reports. Must be literate in Computer-Aided Drafting and Design (CADD). Must have a demonstrated supervisory ability and neat personal appearance.

Analytical Requirements: The work consists of the analysis, design, construction, maintenance and operation of transportation facilities and electrical systems. The incumbent is required to be consistently searching for new methods and approaches to simplify operations and improve efficiency. Considerable analysis and study is required to solve the problems presented.

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### RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

As Branch Leader, the incumbent has direct responsibility for the electrical engineering integrity of the facilities produced within his/her Branch. Poor designs or recommendations result in structures with greater initial cost, increased maintenance costs in the future, or both, and at the most extreme could result in system hazards or failure.

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### PUBLIC AND INTERNAL CONTACTS

Incumbent maintains communication with all personnel assigned to the various projects or facilities. Meets with and discusses job progress and issues with other branches, offices, divisions and districts, usually at the rank-and-file, senior or supervisor level. Communicates with outside agencies and departments concerning permits and approvals. Examples of these agencies include the State Fire Marshal, the Division of the State Architect, local fire departments and local electrical utilities. Most outside agency contacts are at the working level, although sometimes they are at the supervising or manager level. Communicates with construction personnel, usually at the rank-and-file or senior level. Communicates with contractors and suppliers, usually at the working level such as sales persons and engineers, although sometimes at the supervising level. Communicates with maintenance personnel on routine and emergency issues, usually at the working level, lead worker level or manager level. Incumbent is frequently called upon to resolve maintenance and construction problems.

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### PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

Incumbent must be able to:

- Move, lift or carry for a medium distance up to 40 pounds (for example, a tool case or test equipment);
  - Move or remove utility and manhole covers with tools (up to 100 pounds);
  - Climb and descend ladders up to 20 feet in length at a time for total distances of up to 90 feet;
  - Work on elevated catwalks and landings;
  - Work in confined spaces, near operating heavy machinery and with energized low voltage (less than 600 volts) power systems;
  - Work along highways and near construction sites;
  - Fly in commercial aircraft routinely throughout the State;
  - Drive a State automobile for up to eight hours a day.
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### WORK ENVIRONMENT

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

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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)

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EMPLOYEE (Signature)

DATE

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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)

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SUPERVISOR (Signature)

DATE