

**POSITION DUTY STATEMENT**

DOT PM-0924 (REV 01/2025)

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| CLASSIFICATION TITLE<br>CT Electrical Supervisor | OFFICE/BRANCH/SECTION<br>12/Maintenance/North Region |                             |
| WORKING TITLE<br>CALTRANS ELECTRICAL SUPERVISOR  | POSITION NUMBER<br>912-651-6925-007                  | REVISION DATE<br>05/27/2026 |

As a valued member of the Caltrans team, you make it possible to improve lives and communities through transportation.

**GENERAL STATEMENT:**

Under the direction of the Caltrans Electrical Superintendent, the Caltrans Electrical Supervisor is responsible for the supervision of an electrical crew and the installation, maintenance, and repair of the most complex electrical and electronically controlled devices on facilities and right-of-ways. Incumbent will schedule and assign work; train and evaluate performance; implement, maintain and enforce all Caltrans policies and procedures, health and safety rules; conduct safely inspections; develop, maintain and review appropriate reports; insure daily time and records are kept in the Integrated Maintenance Management System (IMMS); project needs, purchase, and inventory material; and insure employees are properly licensed, trained, and qualified to operate highway maintenance equipment and vehicles. The incumbent may be required to work overtime, irregular shifts/ alternate work schedules including nights, holidays, and weekends; maybe required to work temporary and/or intermittent varied work shifts and required to respond to emergency situations and calls. May be loaned to other cost centers.

This classification operates highway maintenance equipment and vehicles and requires a valid class C driver's license. A class A or B driver's license with endorsements and a current medical certificate is desirable. Computer and telemetry skills are also desirable. In District 12 we do not have any high voltage situations (above 600 volts), but at some point high voltage work may be required. Proper training shall be given before any high voltage work is required. Duties include but are not limited to:

**CORE COMPETENCIES:**

As a CT Electrical Supervisor, 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.

- **Change Leadership:** Develops new and innovative approaches needed to improve effectiveness and efficiency of work products. Encourages others to value change. Considers impact and recommends changes. (Prosperity - Collaboration, Stewardship)
- **Decision Making:** Makes critical and timely decisions. Takes charge. Supports appropriate risk. Makes challenging and appropriate decisions. (Prosperity - Innovation, Integrity, Stewardship)
- **Ethics and Integrity:** Demonstrated concern to be perceived as responsible, reliable, and trustworthy. Respects the confidentiality of information or concern shared by others. Honest and forthright. Conforms to accepted standards of conduct. (Prosperity - Integrity, Stewardship)
- **Conflict Management:** Recognizes differences in opinions and encourages open discussion. Uses appropriate interpersonal styles. Finds agreement on issues as appropriate. Deals effectively with others in conflict situation. (Climate Action, Employee Excellence - Collaboration)
- **Teamwork and Collaboration:** Sets team structure. Organizes, leads, and facilitates team activities. Promotes team cooperation and encourages participation. Capable of cross functionality and working well with others on a team to achieve personal goals, team goals, and organizational goals. Takes responsibility for individual actions in order to achieve consistent results. (Prosperity, Employee Excellence - Collaboration, Stewardship)
- **Understanding Others/Motivation:** Understands why groups do what they do and their motivation. Is able to look from multiple perspectives in order to understand others. (Prosperity, Employee Excellence - Collaboration, Stewardship)
- **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. (Safety, Employee Excellence - Collaboration, Integrity)
- **Planning and Results Oriented:** Organizes and executes work to meet organizational goals and objectives while meeting quality standards, following organizational processes, and demonstrating continuous commitment. (Equity, Prosperity - Pride)
- **Commitment/Results Oriented:** Dedicated to public service and strives for excellence and customer satisfaction. Ensures results in their organization. (Prosperity - Collaboration, Stewardship)

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**TYPICAL DUTIES:**

| Percentage | Essential (E)/Marginal (M) <sup>1</sup> | Job Description   |
|------------|---|---|
| 40%        | E                                       | Supervise; provide training; assign, direct, and evaluate performance of assigned crew in the preventative maintenance (PM); troubleshooting and repair (T&R); install, reinstall, rebuild, and field inspection on the Caltrans electrical inventory in Orange County. This inventory includes but is not limited to traffic signals (TS), highway lighting, sign lighting, pumping stations and devices, changeable message signs (CMS), ramp meters, vehicle detection systems (VDS), closed circuit TV systems (CCTV), battery backup systems (BBS), highway advisory radio systems (HARS), electrical services, carbon monoxide analyzers and detectors, ventilation equipment, motors, generators, and telemetry equipment at hubs, nodes, Traffic Management System (TMS) equipment, and the Traffic Management Center (TMC) which includes but is not limited to, modems, bridges, digital cross connects, multiplexers and de-multiplexers, fiber transceivers, protocol converters, and routers. Also at times equipment and devices associated with maintenance buildings (shops, pump stations, roadside units, etc.). Advises in the selection of electrical materials and specialized equipment; supervises the maintenance of an electrical shop and the care and maintenance of electrical and other tools and equipment. |
| 20%        | E                                       | Works with other departments and at times the public to coordinate, notify, and clarify information regarding the above work. Makes estimates of labor, materials, and equipment for repair times and costs. Does IMMS entry, documents, maintains records required for personnel, expenditures, safety meetings and inspections, equipment, and other Caltrans policies and procedures and other daily administrative tasks.   |
| 20%        | E                                       | Shall follow prescribed methods of equipment operation as per Code of Safe Practices (COSP), Maintenance Equipment Training Academy (META), Cal Osha owners manual, and their supervisor. Shall use per-operation and post-operational checklist for reporting any problems to their mechanic. Services and makes minor repairs on equipment as instructed by Maintenance Equipment Training Academy (META). May operate automatic and/or manual transmissions.   |
| 10%        | E                                       | Inspects construction of Highway Electrical Inventory working with Inspectors and Resident Engineers to insure construction is up to standards, is properly functioning, in compliance of safety and maintenance practices.   |
| 10%        | M                                       | Supervises and performs other tasks such as but not limited to painting; cleaning; pouring and finishing concrete; traffic control as required as per Chapter 8; PM, T&R, installing, reinstalling, rebuilding, and doing field inspections on pump plants, traffic signals, traffic signal master systems, lighting circuits, highway, and tunnel lighting, highway sign lighting, navigation lighting, sprinkler controller, and Maintenance stations and their associated electrical devices and elements listed above.  |

<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**

Supervises a crew Electrician II, Electrician I, and Electrical Technician.

**KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS**

Knowledge of:

AC and DC theory, analog and digital theory, fiber optics theory, National Electric Code (NEC), basic terminology, principles, methods, tools, and equipment used in the installation; maintenance and repair of electrical and electronic equipment as well as communication equipment (copper and fiber).

Test equipment including but not limited to volt meters, amp meters, ohm meters, Digital Volt Ohm Meter (DVOM), meggers, oscilloscopes, transmission impairment measuring set, signal generators, time domain reflectometer, optical time domain reflectometer, optical power meters, bit error rate testers.

Safety precautions while working with electricity and fiber, the Electrical Orders of the Division of Industrial Safety and Cal/Osha, Safety and Health Regulations, Caltrans Safety Manual, Caltrans Code of Safe Practices, and Chapter 8.

Techniques of effective supervisions, labor relations, safety and health objectives, regulations and practices and a supervisor's role in safety, health, Equal Opportunity Programs and the processes available to meet program objectives.

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Must possess knowledge of statewide Maintenance functions and mission; goals, organization, and procedures of the Department of Transportation.

### Abilities and Analytical:

- Operate light trucks, trucks with personnel hoist, vans, and automotive vehicles. The ability to obtain a class A or B license and operate class A and B Equipment is very desirable.
- Communicate at level required for successful job performance and follow directions.
- Plan, layout, train, and inspect the work of a crew of electricians.
- Estimate labor, time, and material, and be able to provide lists to crew as well as management for maintenance and repair of assigned inventory as well as the timely ordering of needed material.
- Establish and maintain effective cooperative working relations with other workplace groups and work with others cooperatively.
- Must be able to effectively analyze various work situations and make sound decisions.
- Ability to install, construct, test, maintain, and repair a wide variety of electrical and electronic devices.
- Efficient in IMMS as well as working knowledge of Windows and understand Windows based programs on the computer.
- Understand our communication system, copper/fiber, transmission via analog/digital/IP, which equals telemetry, with the ability to provide guidance, manpower, and equipment to effectively assist contractors or in their absence the T&R thereof.
- Read electrical schematics as well as interpret and make rough sketches and diagrams to provide assistance to Construction, Traffic Operations, and provide instruction and guidance in the repair of assigned inventory and with the labor and material needs of your crew.
- Gather statistical data for analysis that may be used for personnel and equipment budgeting, efficient maintenance practices, and/or material studies.

### Knowledge of:

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  - Read electrical schematics as well as interpret and make rough sketches and diagrams to provide assistance to Construction, Traffic Operations, and provide instruction and guidance in the repair of assigned inventory and with the labor and material needs of your crew.
  - Gather statistical data for analysis that may be used for personnel and equipment budgeting, efficient maintenance practices, and/or material studies.
  - Design substitute methods of operation and instruct electricians in methods of electrical maintenance and electrical inventory.
  - Implement, maintain, and enforce all Caltrans policies and procedures, health and safety rules, and conduct safety inspections.
  - Analyze management information and system information to safely and efficiently get work done.
  - Effectively contribute to the Department's Health, Safety, and the Equal Opportunity Objectives.
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-Complete tasks and other duties as assigned.

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### RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

Poor judgment could result in danger and possible injury or loss of life for the traveling public or Caltrans employee, ineffective production methods, and substandard quality of work. Negligent administrative skills could result in tort liability to the State. Errors in judgment could also result in civil and/or criminal liability to the employee.

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### PUBLIC AND INTERNAL CONTACTS

The incumbent will be asked to work with other Maintenance, Permits, Traffic Operations and Construction Branches and all levels of Caltrans Management. Will be required to work with California Highway Patrol representatives, members of the public, and outside resource agencies. Contact with outside public agencies, utility companies, distributors, manufactures, and railroads are made by telephone/cell phone, internet, and/or in person. Public contact is on a regular basis.

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### PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

Physical: Incumbent will be required to do heavy manual labor including moving/placing heavy objects by lifting, pulling, pushing, and carrying; as well as power grasping, squatting, stooping, kneeling, bending, twisting, reaching, climbing, walking on uneven/unstable ground; working in confined spaces; and standing or sitting for prolonged periods. May be required to work 55 feet or more above the pavement, water, or in the midst of traffic using ladders or lift trucks. May be required to sit in/on and drive or operate maintenance vehicles. The incumbent will be required at times to wear earplugs, respirators, and at all times appropriate safety gear. The incumbent must be hear and see, with or without corrective assistance, at a satisfactory level to ensure the safety of the employee and others. Must have visual and color acuity adequate to perform the essential functions of the job. This position is a drug-sensitive class. The incumbent will be required to pass a pre-employment drug test and be subject to reasonable suspicion testing during appointment. If incuKnowledge of:

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Incumbent possesses a commercial driver's license, employee will be required to take random drug tests throughout appointment.

**Mental and Emotional:** Must be able to keep up with current technological changes in the fields of electricity and electronics. Must have the ability to develop and maintain cooperative working relationships; respond appropriately to difficult situations; recognize emotionally charged issues or problems; and cope with and respond to emergency situations such as traffic/weather conditions and other natural disasters. Will be required to tactfully and courteously deal with public and crew under stressful and possibly adverse conditions. Must be able to focus on precise work beyond the distractions of traffic, be emotionally stable, alert, and aware at all times, reason logically, draw valid conclusions, make appropriate recommendations, and adopt an effective course of action. Will need to determine amounts of materials and length of time to accomplish a job. This position is responsible for working cooperatively with team members and supervisors to identify innovations that will increase productivity, reduce cost, and maintain or improve quality. This position must adhere to the customer service standards set by their unit and provide high quality service to both internal and external customers.

**WORK ENVIRONMENT**

The employee will be based in a District 12 Office in a climate-controlled environment under artificial lights, but most duties and time will be spent outdoors engaged in the duties mentioned above. Weather conditions vary from cold, windy, and wet winter climate to a very hot and dry summer climate. May be exposed to dirt, dust, fumes, hot materials, chemicals, loud noises, inclement weather, steep, uneven and/or unstable terrain, fast-moving traffic, and/or extreme temperatures. May be required to sit, stand, squat, kneel, or all the above for long periods of time. May be exposed/put in stressful situations. Will be required to wear long pants and appropriate footwear in good condition and must wear provided personal protective safety equipment including, but not limited to: shirts and/or vests, hard hats, safety glasses, gloves, face shields, respirators, ear plugs, as well as other safety devices deemed necessary. The incumbent will be required to travel extensively throughout the assigned area and may be required to travel and work in other areas in the District. Employees may be required to work nights, weekends, holidays, alternate work schedules/irregular shifts; and be required to respond to emergency situations and calls.

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