

POSITION DUTY STATEMENT

DOT PM-0924 (REV 08/2024)

CLASSIFICATION TITLE CT Electrician I	OFFICE/BRANCH/SECTION District 7/Maintenance/Electrical Region	
WORKING TITLE Caltrans Electrician I	POSITION NUMBER 907-750-6938-XXX	REVISION DATE 10/02/2024

As a valued member of the Caltrans leadership team, you make it possible for the Department to provide a safe and reliable transportation network that serves all people and respects the environment.

GENERAL STATEMENT:

Under general direction from the Caltrans Electrical Superintendent and general supervision from the Caltrans Electrical Supervisor and/or from an Electrician II lead person, the incumbent will work independently or with a crew performing tasks required to maintain highway electrical assets. The Electrician I will install, repair, and maintain a wide variety of electrical and electronic devices. Assists higher level Electricians in the installation, maintenance, and repair of the more complex electrical and electronically controlled devices, performs bench work in the repair and testing of various electronic/electrical devices, and may routinely patrol an assigned area. The position requires the operation of light trucks, vans, automotive vehicles, and a 45-foot personnel hoists used to repair and maintain Caltrans electrical assets. There are times when the incumbent may work for other Supervisors and/or work units, as required by operational needs. Employee may receive training from other employees of the crew, region, district or headquarters. The incumbent is responsible for the proper maintenance/operation of assigned equipment. Possession of a valid driver's license is required when operating a state owned or leased vehicles. Commercial Class A or Class B driver's license is desirable.

CORE COMPETENCIES:

As a CT Electrician I, 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.

- **Flexibility and Managing Uncertainty** : Adjusts thinking and behavior in order to adapt to changes in the job and work environment. (Safety First, Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - Engagement, Equity, Innovation, Integrity, Pride)
- **Dealing with Ambiguity (Risk)**: Can comfortably handle risk and uncertainty, as well as make decisions to act without having the total picture. (Safety First, Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - Engagement, Equity, Innovation, Integrity, Pride)
- **Reliability**: Ability to demonstrate dependability in meeting commitments, and providing a consistent work product. Takes responsibility for individual actions in order to meet deadline demands. (Safety First, Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - Engagement, Equity, Innovation, Integrity, Pride)
- **Problem-solving and Decision-making** : Identifies problems and uses logical analysis to find information, understand causes, and evaluate and select or recommend best possible courses of action. (Safety First, Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - Engagement, Equity, Innovation, Integrity, Pride)
- **Teamwork/Partnership**: Develops, maintains, and strengthens partnerships with others inside or outside of the organization through effective communication and collaboration. (Safety First, Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - Engagement, Equity, Innovation, Integrity, Pride)
- **Customer Focus**: Considers, prioritizes, and takes action on the needs of both internal and external customers. (Safety First, Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - Engagement, Equity, Innovation, Integrity, Pride)
- **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 First, Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - Engagement, Equity, Innovation, Integrity, Pride)
- **Analytical Skills**: Approaches problems using a logical, systematic, and sequential approach. Weighs priorities and recognizes underlying issues. (Safety First, Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - Engagement, Equity, Innovation, Integrity, Pride)
- **Technical Expertise**: Depth of knowledge and skill in a technical area. (Safety First, Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - Engagement, Equity, Innovation, Integrity, Pride)

TYPICAL DUTIES:

Percentage	Job Description
Essential (E)/Marginal (M) ¹	

ADA Notice

This document is available in alternative accessible formats. For more information, please contact the Forms Management Unit at (279) 234-2284, TTY 711, in writing at Forms Management Unit, 1120 N Street, MS-89, Sacramento, CA 95814, or by email at Forms.Management.Unit@dot.ca.gov.

POSITION DUTY STATEMENT

DOT PM-0924 (REV 08/2024)

30%	E	Works as part of a crew or works independently to install, repair, maintain, and check traffic signals, highway lighting, illuminated signs, flashers, bridges, public service facilities, navigational aids, subway pumping plants, surveillance stations, irrigation systems, tunnel lighting, ramp metering, changeable message signs, closed circuit TV, truck weigh stations, park and rides, motors, building lighting, heating and air conditioning systems, including the wiring, conduits, pull boxes, poles, heads, controllers, and knockdowns.
30%	E	Operates equipment used by the assigned unit. Makes minor repairs, adjustments, emergency repairs; performs lube service; cleans equipment and maintains all pertinent records. Pre and post operative equipment checks. Required to attend mandatory training.
15%	E	Makes detailed checks, inspections, and repairs of a wide variety of electrical equipment to locate trouble or cause of failure and complete repairs such as correcting software entries, replacing spare parts, or installing replacements to accident damage.
10%	E	Makes daily work reports; keeps and maintains simple records. Make drawings of schematics, wiring diagrams, intersections, phase-diagrams, and corrections of them. May order and/or pick up supplies and equipment. May inspect for proper electrical operation and installation of contracts and permits for compliance with Standard Plans and Specifications.
10%	E	Responds to electrical emergency calls, evaluates the situation, and takes appropriate action.
5%	M	Performs janitorial and facility repair duties as required.

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

No direct supervision over others. The Caltrans Electrician I may at any time be placed in charge of a work crew as the responsible person in charge per Chapter VIII, Maintenance Manual, Volume I over other Caltrans workers. He/she is responsible for carrying out the work that is necessary for the efficient use of personnel and equipment while working alone or of a crew that may consist of a couple of Electrician I's (One designated in charge), or Caltrans Electrical Technicians.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

Follows safety and health policies and procedures as contained in the Department's Injury and Illness Prevention Program; knowledge of environmental, storm water, emergencies, natural disasters, accident prevention techniques, and safe work practices. Follows and enforces CAL/OSHA and safety rules and regulations; the National Electric Code and the District Maintenance Code of Safe Practices. A high degree of analytical ability is required. Must be able to quickly locate cause or failure in electrical equipment and devise repairs promptly, establish and conduct preventative maintenance program on equipment assigned for maintenance. Must be able to determine when to require assistance. The person must have strong knowledge of electrical theory and practice, including power, lighting and control circuits; materials, methods, and equipment used in the installation, maintenance, and repair of electric and electronic devices. This pertains particularly to the repair of highway lighting, ramp metering, surveillance stations, and bridge electrical systems. Methods, materials, and equipment used in electrical repair and less complex electronics as applied to various electrical control and measuring devices; and the Electrical Safety Orders of the Division of Industrial Safety and of the safety precautions required in the installation of traffic control devices. Ability to keep accurate written reports. Must be able to communicate well in writing, by telephone and two-way radio. Ability to read and interpret plans, detail drawings and wiring diagrams.

Know and understand the provisions of the California Vehicle Code as it pertains to the loading and operation of motor vehicles; and rules and regulations pertaining to highway maintenance practices. Must have the ability to work safely around high-density traffic and at various heights above traffic. Must have the ability to work effectively alone or with others.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

Error may expose him/her and/or co-workers and/or the public to possible injury or loss of life. Error may also cause an inefficient use of time and tax dollars through extra expense in the maintenance of highways, or damage to State equipment and facilities. Error may expose the State to liability for damages to public property and delay in project delivery.

PUBLIC AND INTERNAL CONTACTS

Maintain good relations with the public, Caltrans employees and employees/representatives of other government agencies. May have daily contact with other public agencies and private individuals. When in contact with a hostile person, the incumbent is expected to maintain a favorable public image for the Department and the State.

ADA Notice

This document is available in alternative accessible formats. For more information, please contact the Forms Management Unit at (279) 234-2284, TTY 711, in writing at Forms Management Unit, 1120 N Street, MS-89, Sacramento, CA 95814, or by email at Forms.Management.Unit@dot.ca.gov.

POSITION DUTY STATEMENT

DOT PM-0924 (REV 08/2024)

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

Much of this position is labor intensive. Employee must have physical ability to react quickly to errant motorist and do strenuous hand and mechanical labor. This person must be able to interact well with employees and individuals from many different cultural backgrounds.

For standing, walking and sitting, along with several other activities, typical duties are used as examples in various situations to give ranges for the activities. Generally, activities can be broken down into operating equipment 30% of the time on a year-around basis.

The remainder of the activity is labor intensive and includes but is not limited to the following:

Standing, Sitting and Walking is described to equal 100% of the work time for a given period such as a work shift.

Lifting (floor to bench to floor) – Items up to 75 lbs may be lifted 1% of the time. Other lighter lifting includes lifting of materials in and out of equipment, ladders, 170 controllers, signal heads, street light luminaries, poles, digging trench. (10%)

Transport and/or carry – Materials, which may weigh 5 to 100 lbs., must be transported and/or carried from storage areas to vehicles and from vehicles to job sites, which may be on uneven terrain. Tools are transported and/or carried a few feet to 100 yards and weigh a few ounces to 50 lbs. each. Tools may be transported and/or carried on uneven terrain. (15%)

Overhead Reaching – Overhead work includes but not limited to pulling yourself up into many types of equipment, adjusting luminaries, installing lamps, adjusting Traffic Signal Heads, and loading material into/on equipment. (15%)

Other Reaching – Includes but not limited to setting cones, lubing and checking equipment, graffiti removal, shoveling, driving, shifting, sitting signs, picking up cones, re-lamping, using hand tools, working with conduit and wire, working in cabinets, 50% of the work shift.

Pushing/Pulling – Includes but not limited to setting poles, pulling wire, tightening and loosening nuts on bolts. (40%)

Twisting – The Operator twists while driving equipment and does so on a continuous basis, especially while backing up or turning around while operating a pilot car. Other twisting includes but is not limited to, shoveling, setting down and picking up traffic cones, working in buckets. (15%)

Climbing/Balancing – Is done in and out of equipment, up and down banks/slopes, up and down and standing on ladders, hoist buckets, stairways, (often with material or supplies); onto steps, walkways, and signs. (15%)

Bending/Crouching/Squatting/Crawling – The employee often bends continuously throughout the day while operating equipment and performing physical labor. All of these activities are necessary when checking such things like pull boxes, cabinets, picking up and laying down tools and material. The employee also crawls around and underneath equipment while checking and servicing equipment.

Simple Grasping – This activity is necessary about 95% of the shift; climbing in/out and around equipment, operating equipment, using hand tools, meters, and handling materials.

Fine Manipulation – This occurs less than 5% of a day and usually while writing reports or manipulating controller keypad, knobs and levers on the equipment.

Hearing and Sight – Essential in order to work safely on the job because of how close the incumbent will be working next to fast moving traffic or large equipment. Incumbent must have adequate night vision to be able to perform work safely.

Hearing should be adequate with or without a hearing aid to hear warning devices used for worker safety such as look out alarm devices including vehicle horns used to warn employees of eminent danger at the work site (per Caltrans Safety Manual).

Height – Works on signs and other structures and/or in a hoist bucket from a height of over 45 feet.

WORK ENVIRONMENT

Required to work in a wide range of sometimes extreme conditions, including heat up to 120 degrees, cold to 30 degrees, strong winds, rain, dust, noise and uneven surfaces.

May be requested to work overtime due to emergencies, special work projects, or when the Department deems that it is in the best interest of the State to work overtime with proper advance notice.

ADA Notice

This document is available in alternative accessible formats. For more information, please contact the Forms Management Unit at (279) 234-2284, TTY 711, in writing at Forms Management Unit, 1120 N Street, MS-89, Sacramento, CA 95814, or by email at Forms.Management.Unit@dot.ca.gov.

POSITION DUTY STATEMENT

DOT PM-0924 (REV 08/2024)

Employees are expected to report to work reasonably dressed to protect themselves during routine assignments and from exposure to usual and/or predictable physical and environmental conditions found in the workplace (per Caltrans Safety Manual).

Personal safety requirements include but are not limited to:

A. Appropriate footwear, in adequate condition.

B. Long or short sleeve shirts provided by Caltrans. Safety vest is to be worn over non-safety shirts or coats.

C. Long pants; no shorts or cutoffs.

D. Safety gear such as: hard hat, safety glasses, hearing protection devices, face shields, gloves, respirator, chaps, and/or other safety gear.

E. Reflective vest worn over white coveralls, as needed, such as for night work.

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
