STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

# POSITION DUTY STATEMENT

PM-0924 (REV 7/2014)

| CLASSIFICATION TITLE | OFFICE/BRANCH/SECTION | |
|---|---|---|
| CALTRANS ELECTRICIAN II | 07/MAINTENANCE/SPECIALCREWS/RELAMP CREW | |
| WORKING TITLE | POSITION NUMBER | EFFECTIVE DATE |
| CALTRANS ELECTRICIAN II | 907-740-6924 | |

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:

The Caltrans Electrician II receives general direction on policies and procedures from the Caltrans Maintenance Area Superintendent and general supervision from the Caltrans Electrical Supervisor and/or from another Electrician II lead person. 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. There are times when employee may work for other Supervisors and/or work units, as required by operational needs. Follows and enforces California Occupational Safety and Health Administration (CAL/OSHA) and safety rules and regulations; the State of California Department of Transportation Standard Specifications and Standard Plans, the National Electric Code and the District Maintenance Code of Safe Practices. Employee may receive training from other employees of the crew, region, district or headquarters. Employee is responsible for the proper maintenance/ operation of assigned equipment. Must have possession of a valid Class "C" Drivers License.

## TYPICAL DUTIES:

| Percentage | Essential (E)/Marginal (M)[1] | Job Description |
|---|---|---|
| 30% | E | Serves as the lead person of a crew or works independently to install, repair, maintain, and check portions of camera closed circuit television systems, highway advisory radio systems, changeable message signs, vehicle detection systems, hubs, nodes, traffic signals, highway lighting, illuminated signs, flashers, pumps, irrigation systems, tunnel lighting, ramp metering, truck weigh stations, park and rides, motors, building lighting, heating and air conditioning systems including the wiring, conduits, pull boxes, poles, heads, controllers, cabinets, demarcation points and knockdowns. |
| 30% | E | Operates equipment used by the assigned unit that requires a class A commercial driver's license. Makes minor repairs, adjustments, emergency repairs; performs lube service; cleans equipment and maintains all pertinent records. Pre and postoperative equipment checks. |
| 15% | E | Makes detailed checks of traffic signals and highway lighting systems to locate trouble or cause of failure, and inspects and tests both signals and lighting systems for proper functioning. In the absence of the Electrical Supervisor, or when assigned, may represent the Supervisor at meetings, functions, public contacts and other daily duties of the Supervisor. |
| 15% | E | Responds to electrical emergencies and evaluates the situation and takes appropriate action. May inspect for proper electrical operation and installation of contracts and permits for compliance with Standard Plans and Specifications. |
| 10% | M | Makes daily work reports; keeps and maintains simple records. Input time into computer. Make drawings of schematics, wiring diagrams, and corrections of them. May order and/or pick up supplies and equipment. |

[1]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

No direct supervision. The Caltrans Electrician II 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 II's (One designated in charge), Electrician I's or Caltrans Electrical Technicians.

## KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

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 camera closed circuit television systems, highway advisory radio systems, changeable message signs, vehicle detection systems, hubs, nodes, highway traffic signals, lighting, and bridge electrical systems; methods, materials, and equipment used in electrical repair; electronics as applied to camera closed circuit television systems, highway advisory radio systems, changeable message signs, vehicle detection systems, hubs, nodes, traffic signals and other 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 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 in the course of their assignment. This person when in contact with a hostile person is expected to maintain a favorable public image for the Department and the State.

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.

Note: 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.

Importance of hearing and sight – These both are essential in order to work safely on the job because of how close this person will be working next to fast moving traffic or large equipment.
It will be necessary for this employee to work nights from time to time and must have good night vision to be able to perform work safely.

Hearing should be adequate with or without hearing aid to hear warning devices used for worker safety, i.e. look out alarm devices, including vehicle horns used to warn employees of eminent danger at the work site. As per Chapter 13 of the Caltrans Injury Illness Prevention Program Safety Manual.

Height – Employee works on signs and on other structures, or in a hoist bucket from a height of over 45 feet. Working above ground and climbing tower structures to a height of over 150 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.

Normal work shift is 4/10; Monday through Thursday, 1900 to 0500.The scheduling of the 4/10 days is at the discretion of the Region Management. Employee may be scheduled to work weekends as needed to meet operational needs with proper advance notice.

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.

Personal safety requirements include but are not limited to (as per Injury and Illness Prevention Program):
A. Appropriate footwear, in good and sturdy condition, must be worn.
B. Either long or short sleeve shirts provided by Caltrans, or a safety vest is to be worn over non-safety shirts or coats.
C. Long pants. No shorts or cutoffs.
D. Provided safety gear; hard hat, safety glasses, hearing protection devices, face shields, gloves, respirator, chaps, or other safety gear must be worn when required by the Department.
E. For night work: reflective vest worn over white coveralls

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.)

## POSITION DUTY STATEMENT

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| 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 |