STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

# POSITION DUTY STATEMENT

PM-0924 (REV 7/2014)

| CLASSIFICATION TITLE | OFFICE/BRANCH/SECTION | |
|---|---|---|
| Caltrans Electrician II | D9/Maintenance/Electrical Crew / Bishop | |
| WORKING TITLE | POSITION NUMBER | EFFECTIVE DATE |
| Caltrans Electrician II | 909-640-6940-918 | |

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:

This position is considered the full journey level for this class. Under direction of a Caltrans Electrical Supervisor or designee, incumbent is responsible for the installation, maintenance and repair of electrical and electronic devices associated with state facilities. Incumbents may also perform lead work as required involving but not limited to, office duties and lower level electrical positions. This position requires the operation of light trucks, personnel hoists, vans and automotive vehicles. Incumbent will drive heavy trucks. With training and certification where necessary, incumbent will be required to operate equipment such as trucks, trenchers, forklifts, air quality monitors, hoists and cranes.

## TYPICAL DUTIES:

| Percentage | Essential (E)/Marginal (M)[1] | Job Description |
|---|---|---|
| 55% | E | Construct, maintain, troubleshoot and repair traffic signal systems, changeable message signs, extinguishable message signs, ramp metering systems, traffic count equipment. Video surveillance and detection equipment, highway advisory radio equipment, building electrical systems, pumping plants, stationary bridge systems, State housing, scale house systems, rest area systems and highway lighting equipment. |
| 20% | E | Inspect and operate equipment utilized in the performance of electrical work associated with state facilities. Equipment will include, but not be limited to, trucks, personnel hoists, trenchers, backhoe, forklift, pavement saw, pipe threading equipment, conduit benders, voltage meters, resistance meters, amperage meters, high potential tester, hot-sticks, power monitoring equipment, air quality monitoring equipment, manual digging tools, electrical hand tools and battery test equipment. |
| 15% | E | Make materials acquisition, requests cost estimates and repair time projections. Incumbent may be required to attend meetings pertaining to state electrical facilities and provide concise, accurate reports regarding issues discussed. May be required to act as a lead worker and train less experienced personnel in the duties required of a Caltrans Electrician II. Required to maintain work logs daily time keeping and maintenance records and provide for input of it to computer database. May be required to attend state provided training classes, pertinent to the maintenance activities associated with state facilities and achieve certification status where necessary. |
| 5% | E | Remove graffiti from light poles, cabinets and other electrical facilities, required to clean and paint electrical facilities, wash state owned vehicles, independently load and unload materials and equipment into a state vehicle or building. |
| 5% | M | Assist Building Maintenance with Facility repairs. |

[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

This is a non-supervisory position. May act on behalf of the supervisor in his/her absence in a leadworker capacity.

## KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

Safety precautions and work procedures required in the maintenance and installation of traffic signal systems, building code, highway information systems, highway lighting systems, pump plants and rest areas.

Make rough sketches and drawings related to electrical work. Read and interpret standard plans, specifications,

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schematics, maintenance manuals and manufacturer requirements. Estimate, order and install materials and generate written work reports. Trouble shoot and repair state facilities. Work independently, but be able to establish effective communication and cooperation with other personnel assigned to a project. Inspect and write detailed reports regarding electrical projects. Instruct unskilled and semiskilled assistants. Help maintain a safe work environment.

Utilize progressive and logical trouble shooting techniques in the repair of electrical and electronic devices. Understand electrical diagrams, charts, technical sheets, oral and written instructions. Interpret electrical codes as they pertain to state electrical facilities. An effective understanding of electrical and electronic formulas as they pertain to state facilities.

Requires knowledge of the operation and care of automotive and highway maintenance equipment. Provisions of the California Vehicle Code as it applies to the safe loading and operation of motor vehicles. Regulations and safety practices pertaining to highway maintenance equipment and operation and loading procedures, regulations, safety practices, and first aid. The ability to work safely around high-density and high-speed traffic and in inclement weather.

Must be able to read and write English at a level required for successful job performance. Perform heavy manual labor, follow oral and written instructions, keep records, interpret simple blueprints and operate radio equipment.

Must possess an unrestricted valid Class B driver's license with N (Tank Vehicle) endorsement.

## RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

Errors may endanger co-workers, the public and the environment. Error may also cause a waste of time and waste of tax dollars through extra expense in the maintenance of highways, or damage to State equipment and facilities. Failure to make timely and proper decisions could endanger human lives and property, result in lawsuits, or cause Caltrans to violate its storm water permits.

## PUBLIC AND INTERNAL CONTACTS

Required to maintain good relations with members of the public and employees from the same and other departments within Caltrans, as well as other agencies. May have contact with other public agencies and private individuals almost daily in the course of assignment. Contact may be with hostile public, and employee is expected to maintain a favorable image for the State. At times may deal with the media.

## PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

May be required to work rotating or irregular shifts, including weekends, nights and overtime. The above duties may also require prolonged stooping, bending, lifting, sitting, climbing or standing. May be required to work extreme warm or extreme cold weather and during inclement weather. Percentages may vary depending on geography and season.

Incumbent must have physical ability to react quickly to errant motorist and do strenuous hand and mechanical labor.

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 and light vehicles 10% of the time on year-around bases. The remainder of the activity is labor.

Standing, Sitting and Walking are described to equal 100% of the work time for a given period such as work shift. The following are various situations and percentages given to illustrate typical ranges of time spent sitting, standing and walking;

Standing, walking and/or using hand tools 50% each. Sitting and driving 50%.

Lifting (Floor to bench to Floor) Items listed may be any of the following but not limited to tire chains for vehicles that may weigh as much as 60 lbs. per chain. May assist the loading and unloading of a tire on a rim, which can weigh over 75 lbs.

Moving Material Incumbent may be required to move bagged/boxed material, which can weigh from 50 to 100 lbs. Material may be moving from storage areas to vehicles and from vehicles to job sites, which may be on uneven terrain. Tools are carried a few feet to 100 yards and weigh a few ounces to 50 lbs. each. Tools carried include picks, shovels, signs, standards, flags and cones, etc. and may be carried on uneven terrain. Incumbent should ask for assistance when moving items over 50 lbs.

Overhead Reaching Setting cones, lubing and checking equipment, shoveling, raking, driving, using digging bar, shifting, holding signs picking up cones.

Pushing/Pulling Shoveling, opening garage doors, hooking up trailers, pulling on hoses, working cranks on equipment stands, tightening and loosing nuts on bolts. Installing tire chains, pulling on chains to open doors.

Twisting the incumbent twists while driving equipment and does so on continuous bases especially while backing up or turning around. Other twisting is done while raking and setting down and picking up traffic cones, which weigh approximately 10 lbs.

Climbing/Balancing Climbing is done in and out of equipment, up and down banks, ladders, stairways, (often with a load of material or supplies) onto steps and walkways to do engine checks on equipment. One example would be to climb onto a trailer to secure equipment with chains and binders.

Bending/Crouching/Squatting/Crawling The incumbent often bends continuously through the day while operating equipment and performing physical labor. All of these activities are necessary when picking up and laying down tools and material. The operator 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 and handling materials.

Fine Manipulation This occurs less than 2% of the day and usually while writing reports or manipulating the knobs and levers on equipment. A higher percentage of the time would be sawing or similar equipment.

Importance of hearing and sight Both are essential of the job because the incumbent must hear directions and equipment and see in order to perform his/her duty safely.

Hearing should be adequate 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. Corrected hearing is acceptable.

Sight needs to be corrected to the State of California Department of Motor Vehicles standards for safe vehicle driving. Night vision must be good for safety when working after dark.

## WORK ENVIRONMENT

The Caltrans Electrician may be required to work in a wide range of sometimes-extreme conditions including heat, cold, strong winds, rain, sleet and snow. Work may be performed inside of climate controlled buildings, but most operations will take place alongside, over or upon state highways and right of way. The incumbent will be exposed to noise, inclement weather, dirt, odors, uneven surfaces, heights up to 250 feet above pavement or water, confined spaces, concrete products, cleaning solvents, high speed traffic conditions and moving construction equipment.

The incumbent normal workweek is 4/10-hour days. The scheduling of the 5/8-hour days or 4/10-hour days is at the discretion of the District Management. Incumbent may be scheduled to work evenings and nights as scheduled by the Maintenance Supervisor.
May be required to work overtime and respond to call outs which may include weekends and holidays due to storms, emergencies, special work projects or when the Supervisor deems that it is in the best interest of the State to work overtime.

Personal Safety requirements include:

A. Work boots in good and sturdy condition must be worn to provide foot and ankle protection.
B. Either long or short sleeved shirts provided by Caltrans or safety vest is to be worn over non-safety shirts or coats.
C. Long pants.
D. Safety gear including hard hat, safety glasses, hearing protection devices, face shields, gloves, respirator, chaps or other safety gear provided by Caltrans must be worn when 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.)

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 |
|---|---|
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