STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

POSITION DUTY STATEMENT

PM-0924 (REV 9/2013)

CLASSIFICATION TITLE	OFFICE/BRANCH/SECTION	
Caltrans Electrician II	District 12/Maintenance/Region I	
WORKING TITLE	POSITION NUMBER	EFFECTIVE DATE
Caltrans Electrician II	912-651-6924-xxx	

As a valued member of the Caltrans team, you make it possible for the Department to improve the mobility across California by being innovative and flexible; reporting to work as scheduled; working cooperatively with team members and others; and treating others fairly, honestly and with respect. Your efforts are important to each member of the team as well as those we serve.

GENERAL STATEMENT:

Under the direction of a Caltrans Electrical Supervisor, the Caltrans Electrician II performs preventative maintenance (PM), troubleshoots and repairs (T&R), installs, reinstalls, rebuilds, and does field inspections on all Highway Electrical Inventory. Responsibilities include the PM, T&R, install, reinstall, rebuild, and field inspections of the most complex electrical and electronically controlled devices on facilities and right of way. Will work independently and/or with others, and may also perform lead work over an electrical crew. The incumbent will be required to work overtime, work irregular shifts/alternate work schedules, including nights, holidays and weekends; May be 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 position is represented under collective bargaining.

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:

TYPICAL DUTIES:

Percentage	Essential (E)/Marginal (M)[1]	Job Description
50%	E	PM, T&R, install, reinstall, rebuild and do field inspections on pump plants, traffic signals & traffic signal master systems, lighting circuits, highway and tunnel lighting, highway sign lighting, navigation lighting, 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, 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. May routinely patrol an assigned area with the responsibility of the above
20%	E	Give functional guidance as a crew leader in the absence of the Supervisor or as directed by the Supervisor in the PM, T&R, install, reinstall, rebuild and field inspections of the assigned electrical Inventory. Trains and instructs less – skilled workers. Work with other departments and at times the public to coordinate, notify, and clarify information. Make estimates of labor, materials, and equipment for repair costs. Does Integrated Maintenance Management System (IMMS) entry, keeps records, makes out daily work reports and performs daily administrative tasks as directed.
20%	E	Operate light trucks, trucks w/personnel hoist, vans and automotive vehicles. Shall follow prescribe methods of equipment operation as per COSP, META, Cal Osha, owners manual, and their supervisor. Shall use Pre-op and Post-op checklist for reporting any problems to their Supervisor. Service and make minor repair on equipment as instructed by META. May operate automatic and/ or manual transmissions
10%	M	Peform task such as painting, cleaning, pouring and finishing concrete bases, traffic control as per Chapter 8. PM, T&R, install, reinstall, rebuild and do field inspections on sprinkle controllers, at Maintenance Stations and their associated electrical devices as needed.

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[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

On occasion may give functional guidance as a crew leader in the absence of the Supervisor or as directed by the Supervisor.

KNOWLEDGE, ABILITIES AND ANALYTICAL REQUIREMENTS

Knowledge of:
AC & DC theory, analog & 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 & fiber)

Test equipment including but not limited to volt meters, amp meters, ohm meters, 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.

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

Abilities & Analytical:
-Communicate at level required for successful job performance
-Follow directions, work independently without close supervision, as well as work with other cooperatively
-Establish and maintain effective cooperative working relations with other groups in the workplace
-Must be able effectively analyze various work situations and make sound decisions.
-Act as a leadworker, instructs unskilled and semi-skilled assistants and establishes and maintains a safe work environment
-Ability to install, constructs, test, maintain and repair of a wide variety of electrical and electronic devices.
-Get around in Windows and understand windows based programs on the Computer.
-Understand our communication system which equals Telemetry, to assist in the T&R thereof
-Read electrical schematics as well as interpret, make rough sketches and diagrams to assist with labor and material needs
-Gather statistical data for analysis
-Complete tasks

Desirable Ability
-Obtain a class A or B license and operate class A & B Equipment, this is rewarded with Commercial Driver's License Differential for this classification.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

Poor judgement could result in danger, possible injury or loss of life for travelling public or Caltrans employee, ineffective production methods, and substandard quality of work. Negligence could result in tort liability to the State as well as civil and/or criminal liability to the employee.

PUBLIC AND INTERNAL CONTACTS

The incumbent may be asked to work with other Maintenance, Permits, Traffic Operations and Construction Branches and all levels of Caltrans Management. May also be required to work with California Highway Patrol representatives, members of the public and outside resource agencies.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

Physical: The incumbent will be required to do heavy manual labor including moving/placing heavy objects by lifting, pulling, pushing and carrying as well ad 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 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 at times required to wear earplugs, respirators and at all times appropriate safety gear. The incumbent must be able to 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 subject to reasonable suspicion testing during appointment. If incumbent possesses a commercial driver's license, employee will be required to take random drug tests throughout appointment.

Mental & 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 or weather conditions and other natural disasters. Will be required to deal tactfully and courteously 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. May 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 a 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 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.)

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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