

CLASSIFICATION TITLE CT Electrician I	OFFICE/BRANCH/SECTION 04/Maintenance/Specialty Region	
WORKING TITLE Caltrans Electrician I	POSITION NUMBER 904-760-6938-xxx	REVISION DATE 09/04/2025

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

**GENERAL STATEMENT:**

This position is considered the first journey level for this class. Under the general supervision of a Caltrans Electrical Supervisor, they are responsible for the installation, maintenance and repair of electrical and electronic devices associated with State facilities. This position requires the operation of light trucks, personnel hoists, vans, and automotive vehicles. Incumbent may drive heavy trucks, if properly licensed. With the proper training, qualification, and certification, may be required to operate equipment such as trenchers, forklifts, air quality monitors, hoists and cranes. Will be required to respond to emergency call outs before and after working hours, including holidays and weekends. Must possess a valid Class C Driver's License, Class A or B is highly 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.

- **Learning on the Fly:** Learns quickly, is open to change, experiments, and is flexible. (Employee Excellence - Integrity)
- **Dealing with Ambiguity (Risk):** Can comfortably handle risk and uncertainty, as well as make decisions to act without having the total picture. (Safety - Integrity)
- **Continuous Professional Development:** Seeks to obtain knowledge and improve performance while supporting others in doing the same. (Employee Excellence - Pride)
- **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. (Safety - People First)
- **Teamwork/Partnership:** Develops, maintains, and strengthens partnerships with others inside or outside of the organization through effective communication and collaboration. (Safety - People First)
- **Organizational Awareness:** Contributes to the organization by understanding and aligning actions with the organization's strategic plan, including the mission, vision, goals, core functions, and values. (Employee Excellence - Collaboration)
- **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. (Employee Excellence - Collaboration)
- **Analytical Skills:** Approaches problems using a logical, systematic, and sequential approach. Weighs priorities and recognizes underlying issues. (Safety - People First)
- **Commitment/Results Oriented:** Dedicated to public service and strives for excellence and customer satisfaction. Ensures results in their organization. (Safety - People First)

**TYPICAL DUTIES:**

Percentage      Job Description  
Essential (E)/Marginal (M)<sup>1</sup>

**POSITION DUTY STATEMENT**

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45%	E	Position may be required to assist in the installation, maintenance, and repair of 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, movable span bridge equipment, scale house systems, rest area systems and highway lighting equipment. Incumbent may be required to work on and around high voltage equipment and switchgear up to 12,000 volts (high voltage equipment is disconnected from source and locked out prior to work being performed on systems). Work on stationary bridge systems may include, but is not limited to, toll collection equipment, highway call box systems, remote supervisory systems, storage battery systems, telephone systems, navigation aids and warning systems, fog detection systems, airway navigation systems, heaters, air conditioners, transformers, sub-station control centers, engine driven generators and carbon monoxide analyzers.
30%	E	Inspect and operate equipment utilized in the performance of electrical work associated with State facilities. Equipment will include (if properly licensed), but will not be limited to: light trucks, personnel hoists, trenchers, backhoes, forklift, pavement saws, pipe threading equipment, conduit benders, voltage meters, resistance meters, amperage meters, high potential tester, hit-sticks, power monitoring equipment, air quality monitoring equipment, manual digging tools, electrical hand tools and battery test equipment with local cost center electricians assisting with project inspection, planning for project meetings, inventory and billing issues.
20%	E	Assist with materials acquisition requests, cost estimates and repair time projections. Attend State provided training classes, pertinent to the maintenance activities associated with State facilities and achieve certification status where necessary.
5%	M	Incumbent may be required to remove graffiti from light poles, cabinets, and other electrical facilities. May be required to clean and paint electrical facilities. May be required to wash State owned vehicles. Required to independently load and unload materials and equipment into a State vehicle or building.

<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**

This is a rank and file position and has no supervisory duties.

**KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS**

**Knowledge:** Safety precautions and work procedures required in the maintenance and installation of traffic signal systems, stationary bridge systems, movable span systems, building code, highway information systems, highway lighting systems, pump plants and rest areas.

**Abilities:** Make rough sketches and drawings related to electrical work. Read and interpret standard plans, specifications, schematics, maintenance manuals and manufacturer requirements. Estimate, order and install materials and generate written work reports. Troubleshoot 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 semi-skilled assistants. Establish a safe work environment.

**RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR**

Errors in judgment, decision making and troubleshooting skills could affect public safety or result in tort liability for the department. The work environment could also be rendered unsafe for employees involved in the project.

**PUBLIC AND INTERNAL CONTACTS**

Will routinely contact or interact with other Caltrans personnel, contractors, engineering consultants and the public. These contacts may take the form of verbal or written communications relating to the assignment.

**PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS**

**Physical:** Incumbent must be physically capable of utilizing writing instruments, hand tools, manual digging tools and electric tools. Incumbent may be required to bend, stoop, twist, power grasp, use fine manipulation, stand, sit, squat, lift and pull during performance of their duties. Incumbent must have good balance for walking on uneven surfaces, climbing ladders, climbing scaffolding, and working on other structures associated with State facilities. Incumbent should have visual and color acuity

**ADA Notice**

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POSITION DUTY STATEMENT

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adequate for performing the essential functions of the job.

Mental: Must be capable of understanding and performing the essential functions of the job in a reasonable and prudent manner, using logic and deductive skill to provide and product that is safe and usable.

Emotional: Incumbent must have capacity for stable and reasonable interaction with supervisors, fellow workers, and the public during the performance of their duties.

WORK ENVIRONMENT

The Caltrans Electrician I may work under various climates and conditions. 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 550 ft above pavement or water, confined spaces, concrete products, cleaning solvents, high speed traffic conditions and moving construction equipment. Must be willing to work odd hours, weekends and be available for trouble call outs.

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
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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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POSITION DUTY STATEMENT

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Current/Proposed

CLASSIFICATION TITLE CT Electrician II	OFFICE/BRANCH/SECTION 04/Maintenance/Specialty Region	
WORKING TITLE Caltrans Electrician II	POSITION NUMBER 904-760-6924-xxx	REVISION DATE 09/04/2025

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

GENERAL STATEMENT:

This position is considered the full journey level for this class. Under direction of a Caltrans Electrical Supervisor employees are responsible for the installation, maintenance, troubleshooting and repair of more complex electrical and electronic devices associated with state facilities. Employees may 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. Employees may drive heavy trucks, if properly licensed. With training and certification where necessary, employees may be required to operate equipment such as: trenchers, forklifts, air quality monitors, hoists and cranes. Employees may be assigned to swing or night shift positions, and will work independently to perform the duties assigned this class. Employee will need to establish a safe work environment. Employee may be required to respond to emergency callouts before and after working hours, including holidays and weekends. Must possess a valid Class C driver's license, Class A or B highly desirable.

CORE COMPETENCIES:

As a CT Electrician II, 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.

- Learning on the Fly:** Learns quickly, is open to change, experiments, and is flexible. (Employee Excellence - Integrity)
- Dealing with Ambiguity (Risk):** Can comfortably handle risk and uncertainty, as well as make decisions to act without having the total picture. (Safety - Innovation)
- 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. (Employee Excellence - Pride)
- 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. (Safety - People First)
- Teamwork/Partnership:** Develops, maintains, and strengthens partnerships with others inside or outside of the organization through effective communication and collaboration. (Employee Excellence - Pride)
- Organizational Awareness:** Contributes to the organization by understanding and aligning actions with the organization's strategic plan, including the mission, vision, goals, core functions, and values. (Employee Excellence - 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. (Employee Excellence - People First)
- Analytical Skills:** Approaches problems using a logical, systematic, and sequential approach. Weighs priorities and recognizes underlying issues. (Safety - People First)
- Diagnostic Information Gathering:** Identify information needed to clarify a situation, seeking that information from appropriate sources. (Prosperity - Stewardship)

TYPICAL DUTIES:

Percentage	Job Description
Essential (E)/Marginal (M) <sup>1</sup>	

**POSITION DUTY STATEMENT**

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45%	E	Construct, maintain, troubleshoot and repair more complex electrical and electronic systems, equipment and devices such as traffic signal, changeable message sign, extinguishable message sign, ramp metering, traffic count equipment, video surveillance and detection equipment, highway advisory radio equipment, pumping plants, Toll bridge, movable span bridge equipment, scale house, rest area, and highway lighting equipment. Work involves on and around high voltage equipment and switchgear up to 12,000 volts (high voltage equipment is disconnected from source and locked out prior to work being performed on systems).
20%	E	Work on stationary bridge systems may include, but not be limited to: toll collection equipment, highway call box systems, remote supervisory systems, storage battery systems, telephone systems, navigation air and warning systems, fog detection systems, airway navigation systems, HVAC, transformers, sub-station control centers, engine driven generators and carbon monoxide analyzers.
15%	E	Inspect and operate equipment utilized in the performance of electrical work associated with state facilities. Equipment will include (if properly licensed), but not be limited to: light trucks, personnel hoists, trenchers, backhoes, forklift, pavement saws, pipe threading equipment, conduit benders, voltage meters, resistance meters, amperage meters, high potential tester, hit-sticks, power monitoring equipment, air quality monitoring equipment, manual digging tools, electrical hand tools and battery test equipment.
10%	E	Assist with materials acquisition requests, cost estimates and repair time projections. Incumbent may be required to act as a lead worker and train less experienced personnel in the duties required of a Caltrans Electrician. Maintain work logs, daily time keeping and maintenance records, and provide for input of it to computer databases. Attend state provided training classes, pertinent to the maintenance activities associated with state facilities and achieve certification status where necessary.
10%	M	Incumbent may be required to remove graffiti from light poles, cabinets and other electrical facilities. . Incumbent may be required to clean and paint electrical facilities. Incumbent may be required to wash state owned vehicles. Incumbent may be required to independently load and unload materials and equipment into a state vehicle or building.

<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**

May function at a Leadworker capacity when assigned by the supervisor and when working with less experienced electrical personnel.

**KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS**

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

Abilities: Make rough sketches and drawings related to electrical work. Read and interpret standard plans, specifications, schematics, maintenance manuals and manufacturer requirements. Estimate, order and install materials and generate written work reports. Troubleshoot 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 semi-skilled assistants. Act as a lead worker. Establish a safe work environment.

**RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR**

Errors in judgment, decision making and troubleshooting skills could effect public safety or result in tort liability for the department. The work environment could also be rendered unsafe for employees involved in the project.

**PUBLIC AND INTERNAL CONTACTS**

Employee will routinely contact or interact with other Caltrans personnel, contractors, engineering consultants and the general public. These contacts may take the form of verbal or written communications relating to the assignment.

**PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS**

Physical: Employee must be physically capable of utilizing writing instruments, hand tools, manual digging tools and electric tools. Employee may be required to bend, stoop, twist, power grasp, use fine manipulation, stand, sit, squat, lift and pull during performance of their duties. Employee must have good balance for walking on uneven surfaces, climbing ladders, climbing

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POSITION DUTY STATEMENT

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scaffolding and working on other structures associated with state facilities. Employee should have visual and color acuity adequate for performing the essential functions of the job.

Mental: Employee must be capable of understanding and performing the essential functions of the job in a reasonable and prudent manner, using logic and deductive skill to provide and end product that is safe and usable.  
Emotional: Employee must have capacity for stable and reasonable interaction with supervisors, fellow workers, and the general public during the performance of their duties.

WORK ENVIRONMENT

The Caltrans Electrician II may work under various climates and conditions. 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 employee will be exposed to noise, inclement weather, dirt, odors, uneven surfaces, heights up to 550 ft above pavement or water, confined spaces, concrete products, cleaning solvents, high speed traffic conditions and moving construction equipment. The incumbent must be willing to work odd hours, weekends and be available for trouble call outs.

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
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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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