

# MODESTO CITY SCHOOLS

## JOB DESCRIPTION

### ELECTRICIAN

---

#### **DEFINITION:**

Under the direction of the Senior Director-Maintenance and Operations, perform skilled electrical work in the inspection, repair, alteration, construction, installation and maintenance of electrical systems, wiring and equipment.

#### **ESSENTIAL DUTIES AND RESPONSIBILITIES:**

- Inspect, repair, install, test, service and maintain electrical systems, including conduit, wiring, light and power circuits, motor appliances, low voltage systems, fire alarm systems, scoreboards, stadium lights, conductors, transformer pads, generators and switches; assure compliance with building codes applicable to the electrical trade.
- Install electrical wiring and systems; assemble conduit and bend conduit and pull wire; place conduit in appropriate spacing; wire main and sub electrical panels; install new circuits or replace existing circuits as needed.
- Install and maintain Wi-Fi and Local Area Network systems for assigned locations; install fiber optic and other cabling, data cabinets, fiber trays, free standing racks and sub panels.
- Assemble, install and repair lighting fixtures, wiring and controls; install and repair ballasts, sockets, capacitors, bulbs and other lighting parts, wiring and assemblies; repair scoreboards as needed; install new electrical systems and equipment.
- Design new electrical and low voltage systems for review.
- Repair or replace power outlets as necessary; check circuits and replace breakers as appropriate; troubleshoot, diagnose and repair a variety of power tools, equipment and appliances used in maintenance and food service as needed.
- Repair appliances as assigned by the position, including ovens, stoves and vacuum cleaners.
- Install and repair pool lights at assigned sites.
- Review bid specifications and blueprints for construction, repairs and electrical installation projects; communicate with contractors and outside agencies to complete projects.
- Troubleshoot and resolve electrical malfunctions; trace out wiring, perform diagnostic tests on system components and replace defective wires and parts, including switches, receptacles and fuses.
- Plan, organize and lay out assigned tasks; interpret electrical plans, diagrams, blue prints, sketches and specifications; work from verbal and written instructions and work orders.
- Estimate labor, material and equipment needed for assigned projects; monitor inventory levels of materials and equipment; order, receive and maintain inventory of materials and equipment as needed; communicate with local agencies to assure compliance with applicable codes.
- Operate a variety of specialized equipment including meters, testers, soldering irons, wire pullers, conduit benders, lifts, drills and various hand and power tools; drive a vehicle to conduct work.
- Communicate with personnel and various outside agencies to exchange information and resolve issues or concerns.
- Perform preventive maintenance on organization-wide electrical panels; check and service circuit breakers, distribution panels and transformers; replace parts as needed
- Maintain various records related to work orders and assigned activities.
- Maintain shop and work areas in a safe, clean and orderly condition.

#### **OTHER DUTIES:**

- Perform related duties as assigned.

## **REQUIRED QUALIFICATIONS:**

### **Education and Experience:**

- Any combination equivalent to: graduation from high school supplemented by completion of an approved apprenticeship program in the electrical trade and four years journey-level experience in the installation, maintenance and repair of electrical systems and equipment.

### **Licenses and other Requirements**

- Valid California Class C driver's license.
- Must provide a DMV printout within five work days of offer of employment.
- Maintain participation in CA DMV Assessment System/Automatic Pull Program.

### **Knowledge of:**

- Methods, procedures, equipment and materials used in the installation, maintenance, repair and operation of electrical equipment and systems.
- Building codes related to the electrical trade.
- Software programs for certifying fiber optic and data cabling, fire alarm settings and other related tasks.
- Operation and maintenance of tools and equipment used in the electrical trade.
- Proper methods of storing equipment, materials and supplies.
- Shop math applicable to the building trades.
- Technical aspects of the electrical trade.
- Appropriate safety precautions and procedures.
- Electrical blueprints.
- Oral and written communication skills.
- Record-keeping techniques.
- Proper lifting techniques.

### **Ability to:**

- Operate and maintain specialized machinery, equipment and tools utilized in the repair, installation and maintenance of electrical systems.
- Plan, create, and prepare a construction plan with State and local jurisdictions for new installations.
- Plan and lay out electrical work.
- Troubleshoot and diagnose electrical device, system and equipment malfunctions.
- Replace defective parts and components as necessary.
- Read and work from plans, blue prints, sketches, specifications and diagrams of electrical work.
- Observe health and safety regulations and procedures.
- Communicate effectively both orally and in writing.
- Work cooperatively with others.
- Meet schedules and time lines.
- Understand and follow oral and written instructions.
- Work independently with little direction.
- Maintain various records related to work performed.

## **WORKING CONDITIONS:**

### **Work Environment:**

- Indoor and outdoor work environment.
- Regular exposure to fumes, dust, dirt, oil/grease.

- Driving a vehicle to conduct work.

Physical Demands: The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

- Dexterity of hands and fingers to operate specialized equipment and tools.
- Hearing and speaking to exchange information.
- Seeing to read and perform electrical functions.
- Lifting, carrying, pushing or pulling heavy objects as assigned by the position.
- Reaching overhead, above the shoulders and horizontally.
- Bending at the waist, kneeling or crouching.
- Climbing ladders and working from heights.
- Standing for extended periods of time.

Hazards:

- Working around and with machinery having moving parts.
- Exposure to high voltage and electrical shock.
- Working at heights.

The information contained in this job description is for compliance with the Americans with Disabilities Act (A.D.A.) and is not an exhaustive list of the duties performed.

**Cabinet Approved: 6/4/96**

**Unit Approved: 6/5/96**

**Board Approved: 7/1/96**

**FLSA Status: Non Exempt**