

## **MODESTO CITY SCHOOLS**

### **Job Description**

JC # 1740

### **DATA COMMUNICATIONS AND LOW VOLTAGE TECHNICIAN**

#### **OVERALL RESPONSIBILITY**

Under general supervision, install, maintain and repair voice, data and electrical systems.

#### **SPECIFIC RESPONSIBILITIES**

1. Install voice and data systems including fiber, CAT 5 and other related terminations.
2. Install and maintain a variety of high and low voltage circuits.
3. Survey installation area to determine work methods, tools, materials and labor estimates.
4. Review specifications and plan sets for technical accuracy.
5. Act as a liaison between Facilities and Construction and Computer Systems on technology wiring projects.
6. Install system components such as backboards, key telephone units, communication equipment, connector blocks, and patching cables.
7. Work from blueprints, sketches, and drawings in installing, remodeling and updating technology infrastructure.
8. Create and maintain specifications, adhering to EIA/TIA, NEC or NFPA standards and codes.
9. Maintain time, labor and materials records per job.
10. Adhere to all city, state, county and district fire and/or safety codes and procedures.
11. Lead the work of helper(s).
12. Requisition materials necessary to complete assigned jobs.
13. Initiate troubleshooting procedures to identify the presence/absence of system errors.
14. Wear breathing apparatus, shoes, eye goggles, hearing protectors, rubberized jacket, pants and boots, and protective clothing as directed.
15. Maintain a valid California driver's license.
16. Effectively communicate and maintain cooperative relationships with those contacted in the course of work.
17. Perform other related duties as assigned.

#### **SALARY**

Classified Unit Salary Schedule

## DATA COMMUNICATIONS AND LOW VOLTAGE TECHNICIAN (continued)

### QUALIFICATIONS

#### Knowledge/Ability

##### Minimum Requirements:

- Knowledge of and ability to use electrical testing equipment.
- Knowledge of the dangers of hazardous materials and ability to take appropriate action to prevent injury to self and others.
- Knowledge of equipment safety practices and procedures.
- Knowledge of the use of materials, tools and methods used in the electrical trade.
- Knowledge of state and county electrical safety codes and standards.
- Knowledge of electrical troubleshooting techniques.
- Ability to understand and implement oral and written directions.
- Ability to read blueprints and work according to plans and specifications.
- Ability to make time and material estimates.
- Ability to work from blueprints in installing or remodeling electrical circuits.
- Knowledge of principles, operation, production capacity, and application of a computer and related data processing equipment.
- Knowledge of different types of wires, color coding system, conduits, insulators, clamps, brackets, etc., used to construct, protect and maintain the system.
- Knowledge of major circuits, individual components and troubleshooting procedures.
- Knowledge of characteristics and principles of AC and DC electricity as related to computer networking and communication systems.
- Ability to run wires between components and to the outside cable system, and install molding, insulators, connectors and terminal boxes and other protective and support items.
- Ability to use test equipment such as hand test sets, volt-ohmmeters, ammeters, tone testers, continuity testers, pulse repeaters, and coordinate the test procedures with other employees operating the test board.
- Ability to understand complicated layout sheets, wiring diagrams, schematics, circuit descriptions, government specifications, manufacturer's specifications, and locate wire conductors by color code.

#### Experience

##### Minimum Requirement:

- Four (4) years experience as an electrician or forty-eight (48) months experience as an electrician acquired through an accredited apprenticeship program, skill-training program, or general electrical experience.
- One (1) year of experience installing structured cabling systems (e.g. fiber optic cable, category 5 UTP cable).

##### Desirable Qualification:

- Two (2) years of experience configuring communication equipment.
- Attainment of C-10 Contracting License.

#### Education

##### Minimum Requirement:

- Graduation from high school or General Education Development (GED) Certificate or California High School Proficiency Examination (CHSPE) Certificate.

#### Physical Characteristics:

##### With or Without the Use of Aids:

- Sufficient vision, depth perception and color acuity to read fine print, read diagrams, blueprints, and manuals, and drive and operate equipment. .
- Sufficient hearing to detect and diagnose equipment malfunctions.
- Sufficient hearing to hear work area noise and normal conversation in person and on the telephone.
- Ability to speak in a normal voice to be able to be heard and understood on the telephone and at the work site.

## DATA COMMUNICATIONS AND LOW VOLTAGE TECHNICIAN (continued)

### QUALIFICATIONS (continued)

#### Physical Characteristics:

##### With or Without the Use of Aids:

- Ability to reach horizontally and vertically with arms.
- Sufficient dexterity to operate hand and power tools requiring strength and coordination; manipulate small objects, print or write legibly, operate precision tools; and make minute repairs.
- Sufficient physical ability, strength, mobility, and stamina to drive a vehicle, climb ladders, crawl under buildings, bend, stretch, stand, kneel, walk, stoop, crawl, and extend legs.
- Sufficient physical ability, strength, mobility, and stamina to perform heavy physical labor in hot, cold and inclement weather conditions.
- Sufficient physical ability, strength, balance, and tolerance of heights to work on rooftops, scaffolds, and ladders at heights up to 50 feet, sometimes in precarious positions.
- Sufficient physical ability, strength, mobility and stamina to lift, carry, push or pull objects which may frequently exceed 75 pounds in a series of functional tests which clearly simulates the work environment.
- Sufficient physical ability, mobility and stamina to work in small spaces with arms extended.
- Physical ability to sit for extended periods of time.
- Physical tolerance to chemicals and chemical odors.

#### Pre-Employment Physical Examination

- A physical and tuberculosis examination is required as a condition of employment.
- Examinations shall be administered by a District provider and be at the District's expense. Individuals must evidence ability to perform physical requirements of position and test negative for tuberculosis.

#### License(s)/Certificate(s)/Permit(s)

- Valid California Driver's License.
- Department of Transportation Powered Industrial Truck Operator's Permit to be obtained within the first sixty (60) days of employment.
- Provide a Department of Motor Vehicles printout evidencing driving record.

### REPORTS TO:

Supervisor of Maintenance and Operations or designee.

Personnel Approved: 5/4/01

Cabinet Approved: 8/14/01

Unit Approved: 9/13/01

Board Approved: 10/1/01