

December 1998

ELECTRICAL COMMUNICATIONS TECHNICIAN

DEFINITION

Under general supervision to perform a variety of skilled/journey-level electrical work; to plan, design, install, program, and maintain telephone, lighting and alarm systems; install and maintain clocks and other timed systems and do related work as required.

ESSENTIAL FUNCTIONS

Inspects, repairs, services and maintains electrical and lighting systems for both low (110) and high (480) voltage; installs and maintains power circuits and breaker panels; interprets electrical plans and specifications to insure compliance with codes; installs telephone lines and wall jacks for data systems, quick mail and telephone lines for computer modems and data network; installs datalines for Internet, fire, and security alarm systems; troubleshoot, diagnose and make repairs on desk telephones and analog telephone switching system; install fire alarm systems; diagnose malfunctions of alarm systems and make repairs as needed; install, troubleshoot and maintain intercom and digital telephone systems; repair or replace wall clock; programs intercom systems; plans and lays out installations for telephone, intercom, security alarm and Internet systems for new projects; connects wiring to GTE demarcation point; installs and maintains master electrical panels, distributions centers and switch gear; estimates time and material costs of projects; keeps records of materials cost.

OTHER RELATED FUNCTIONS

May walk with construction bidders at job walks; may provide lead direction for a crew on specific projects.

SPECIAL REQUIREMENTS

Possession of the category of valid California driver's license required to meet performance requirements of the position as determined by the State Department of Motor Vehicles rules. Must be able to be insured, and continue to be insurable, by the District's liability insurance carrier.

Possession of a California Contractors Electrical License acting as a RME (Responsible Managing Employee) is desirable.

Electrical Communications Technician - 2

DESIRABLE QUALIFICATIONS

Knowledge of:

- 3-phase/single phase, high & low voltage electrical systems;
- TIA-568A compliance for horizontal cat 3, 4, & 5 cable installation;
- Backbone wiring installation;
- Telecommunications and wiring installations;
- The various types of fire alarm systems;
- Simplex intercom and phone system;
- Computer software related to communication systems;
- Uniform Fire Code Title #24;
- Uniform Electrical Code.

Ability to:

- Diagnose and troubleshoot power failures and malfunctions in high and low voltage systems; Calculate power and total loads of electrical systems;
- Lay out new conduit and install structured cabling for LAN and Ethernet networks;
- Lay out runs and know how to use existing conduits;
- Read blue prints and schematics for new conduit runs;
- Work cooperatively with co-workers, administrators, contractors, and outside organizations;
- Familiar with terminology in both electrical and Local Area Network;
- Operate a computer and relevant software;
- Use testing equipment such as ohmmeter, amprobe, voltmeter, data cable certifier, meter, path finder, phone line tester and tone generator.

TRAINING AND EXPERIENCE

Any combination of training and experience which would likely provide the required knowledge and abilities is qualifying. A typical way to obtain these knowledge and abilities would be:

Four years experience as a journey-level electrician, including 3 years of experience in the installation and maintenance of digital telephones, telephone lines, alarm systems and other electronic systems.