

**CITY OF SANTA CLARA, CALIFORNIA
CLASS SPECIFICATION**

TITLE: ENGINEERING TECHNICIAN (FIBER) (JOB CODE 460F)

DEPARTMENT	ACCOUNTABLE TO	FLSA STATUS
Electric Utility	Various	Non-Exempt

CLASS SUMMARY

The Engineering Technician (Fiber) is an entry-level classification in the paraprofessional Engineering Technician series. An incumbent in this classification performs routine technical office and field work in support of various projects as generated by the Electric Utility Silicon Valley Power Fiber Enterprise Program. Specific responsibilities will vary according to assignment. Performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS

The Engineering Technician (Fiber) is distinguished from the other Engineering Technician and Senior Engineering Technician classifications by its focus on routine paraprofessional fiber engineering duties and the performance of duties under more immediate supervision. Incumbents' work is closely supervised, work methods are explained in specific terms and work is subject to frequent review.

MINIMUM QUALIFICATIONS

EDUCATION AND EXPERIENCE

- Graduation from high school or tested equivalent, and
- One (1) year working with Computer Aided Drafting (CAD).

DESIRABLE QUALIFICATIONS

- Experience with geographic information system (GIS) tools and software is desirable
- Proficiency in using CAD for fiber network design and outside plant construction (e.g., handle basic and advance drawing design, plot schematic and technical drawings) is desirable
- Completion of courses in mechanical drawing is desirable
- Experience in Outside Plant (OSP) dark fiber route design and mapping in the electric utility is desirable
- Proficiency in standard Adobe Acrobat, Visio, Google Earth, BlueBeam or other collaboration software tool, and Microsoft Office (Word, Power Point, Excel, Access) is desirable

ACCEPTABLE SUBSTITUTION

Post-secondary education equivalent to thirty (30) semester units or forty-five (45) quarter units including satisfactory completion of courses in mathematics, engineering, CAD, GIS, or related subjects may be substituted for the experience requirement.

LICENSES/CERTIFICATIONS

Possession of a valid California Class C Driver's License is required at the time of appointment, and for duration of employment

Engineering Technician (Fiber) (460F)

OTHER REQUIREMENTS

Must be able to perform the essential functions of the job assignment, with or without reasonable accommodations.

TYPICAL DUTIES

This description may not include all the duties listed below, nor do the examples cover all duties that may be performed.

Under immediate supervision, the incumbent will:

- Review Outside Plant (OSP) Fiber map drawings, use CAD applications to map and update OSP fiber networks and route maps
- Input fiber map data into central database for sorting and filtering of data used in surveying and repairs
- Update CAD and GIS mapping systems for fiber network layout, as required
- Perform data input into fiber optic database system, including computerization of distribution points of fiber optic cable, fiber locations, and aerial locations
- Participate in Silicon Valley Power Fiber Program field survey activities such as organizing and recording fiber splice points
- Research fiber mapping records on routine matters, and compile basic reports
- Create and update fiber engineering plans, maps, drawings, diagrams, and charts using manual and computer-aided methods
- Create Encroachment Permit Drawings, to scale, as requested by SVP Electric Engineering
- Maintain electronic and paper files and databases of engineering documents such as plans, specifications, drawings, and maps
- Perform field inspections to obtain and verify engineering data
- Maintain records of field inspections
- Verify the accuracy of engineering documents using mathematical calculations
- Provide Fiber Electric Utility staff with technical information as requested
- May be required to open fiber box lids on occasion
- Performs other related duties as assigned

KNOWLEDGE, SKILLS, & ABILITIES

Knowledge of:

- Mathematical principles, including algebra, geometry and trigonometry
- The principles and practices of engineering drafting and graphic design
- Specialized fiber engineering software and equipment used for drafting fiber route maps
- Methods, procedures, and materials used in area of assignment
- Standard personal computer hardware and software, including word processing, spreadsheet, and database programs
- Environmental and safety practices, procedures and standards
- Office safety practices, procedures and standards

Ability to:

- Interpret, apply, and explain maps, engineering drawings, and building plans

Engineering Technician (Fiber) (460F)

- Prepare neat and accurate drawings, diagrams, dimensions, representations, and schematics
- Perform engineering mathematical calculations with accuracy
- Communicate clearly and effectively, both verbally and in writing
- Write basic technical reports on routine matters
- Establish and maintain effective working relationships with those contacted in the course of work including coworkers and the public
- Work in a team-based environment to achieve common goals
- Effectively handle multiple priorities, organize and meet strict deadlines
- Evaluate situations, identify problems, and exercise sound independent judgment within established guidelines
- Walk or stand for extended periods of time and bend, stoop, crawl, climb, and lift as necessary to perform assigned duties
- Lift, carry, and relocate a variety of equipment weighing up to 25 pounds on a regular basis; may be required to open fiber box lids weighing up to 50 pounds on occasion

SUPERVISION RECEIVED

Receives immediate supervision from a Senior Engineering Technician, Engineer, or other supervisor as assigned.

SUPERVISION EXERCISED

May assist in the training of personnel as assigned.

CLASSIFICATION HISTORY

Established 9/2014; Revised 10/2024