CITY OF SANTA CLARA, CALIFORNIA
CLASS SPECIFICATION

TITLE: PRINCIPAL ENGINEERING TECHNICIAN (ELECTRIC) (JOB CODE 670)

DEPARTMENT	ACCOUNTABLE TO	FLSA STATUS
Electric Utility	Various	Non-Exempt

CLASS SUMMARY

The Principal Engineering Technician (Electric) is an advanced level classification in the paraprofessional Engineering Aide Technician series. Incumbents in this classification perform duties involving design work and the performance of the highest level of paraprofessional engineering work for the electric utility. Work is performed under the general supervision of a professional engineer who makes assignments and inspects work to ensure that it is conducted according to instructions and in conformity with accepted engineering standards. Performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS

Positions at this level are distinguished from other classes within the series by the level of responsibility assumed and the complexity of duties assigned. Employees perform the most difficult and responsible types of duties assigned to this series, including preparation of the most complex exhibits, plans, engineering calculations and cost estimates. Employees at this level are required to be fully trained in all the procedures related to assigned area of responsibility. This classification differs from the lower level class of Senior Engineering Technician in that the incumbent is required to possess a high degree of experience and skill and have the ability to produce complex paraprofessional work products that are complete and thorough with limited supervision.

MINIMUM QUALIFICATIONS

EDUCATION AND EXPERIENCE

- Possession of an Associate's degree or higher in Engineering or related field; and
- Three (3) years of paraprofessional engineering experience including experience using Computer Aided Design (CAD) and Geographic Information Systems (GIS) applications.

ACCEPTABLE SUBSTITUTION

- An additional two (2) years of paraprofessional engineering experience may be substituted for the degree requirement, on a year for year basis.

DESIRABLE QUALIFICATIONS

- Advanced experience in using CAD and GIS applications

Supervisory experience

LICENSES/CERTIFICATIONS

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

OTHER REQUIREMENTS

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

CONFLICT OF INTEREST

Incumbents in this position are required to file a Conflict of Interest statement upon assuming office, annually and upon leaving office, in accordance with City Manager Directive 100.

TYPICAL DUTIES

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

Under direction, the incumbent will:

- Perform the most responsible paraprofessional engineering work in documenting the electric utility infrastructure
- Collect field data as to existing electric utility facilities and related information
- Review proposed design with professional engineering personnel
- Prepare cost and material estimates for work orders
- Write contract specifications and prepare contract documents for requests for proposals
- Update construction drawings of various public works projects transmission lines, generation facilities and electric substation improvements
- Draft preliminary and final plans in the design of new electric utility facilities and additions to existing electric utility infrastructure
- Make engineering calculations requiring the knowledge of engineering theory and its application to solve design problems
- Review plans, improvement plans and permit applications to determine conformity to regulation and make appropriate recommendations or decisions subject to administrative approval
- Check computations, specifications, and other documents for accuracy, legality and conformity
- Perform complicated paraprofessional engineering studies for engineering projects that involve considerable independent collection and analysis of data
- Provide information as to the location of existing and proposed electric utility projects and facilities
- May periodically run various surveying instruments
- Document as-built field construction conditions of electric utility facilities and keeps appropriate field notes
- Perform ESRI-based GIS application work
- Perform other related duties as assigned

KNOWLEDGE, SKILLS, & ABILITIES

Knowledge of:

- Problems and elementary principles of planning, designing and constructing electric utility projects and facilities
- Environmental Systems Research Institute (ESRI) based Geographic Information Systems (GIS) applications

- Engineering drafting and calculations
- Administrative and engineering computer applications and software (e.g., Microsoft Office Suite, project management software, scheduling tools, and computer-aided drafting and design (CAD) with Geographic Information Systems (GIS) applications
- Office safety practices, procedures and standards
- Principles of supervision and training

Ability to:

- Understand and carry out written and oral instructions
- Communicate clearly and effectively, both orally and in writing
- Interpret and explain maps, plans and property descriptions
- Effectively handle multiple priorities, organize workload, and meet strict deadlines
- Establish and maintain a cooperative working relationship with those contacted in the course of work, including the public
- Work in a team-based environment and achieve common goals
- Walk or stand for extended periods of time
- Bend, stoop, reach, carry, crawl, climb and lift as necessary to perform assigned duties

SUPERVISION RECEIVED

Works under the direction of professional engineering and other classifications as assigned.

SUPERVISION EXERCISED

May supervise subordinate Engineering Technician personnel, or other personnel as assigned.

CLASSIFICATION HISTORY

09/1978; Rev. 05/2016; Rev. 09/2024