ENGINEERING TECHNICIAN

DEFINITION

This non-exempt position reports directly to the District Engineer, and performs drafting, surveying and responsible technical engineering support work in the design and construction of District structures and facilities; reviews maps and plans for conformance with District engineering and legal requirements; assists with development and preparation of engineering reports and related permit applications, assists with inspections on District projects, and other engineering projects and reports, as well as other duties as assigned.

EXAMPLES OF DUTIES

The duties listed below are illustrative only and are not meant to be a complete exhaustive listing of all the duties and responsibilities of the Engineering Technician classification:

Engineering Duties:

- Assists with the preparation of designs, plans, permits, and specifications for the construction and development of district structures and facilities.
- Performs drafting and map drawing assignments using Auto CAD and GIS.
- Performs land surveying work, including the operation of surveying instruments.
- Prepares plans and profile sheets, locating utilities and obstacles that may present construction problems.
- Make field inspections of job sites to verify the accuracy of drawings and profiles.
- Prepare right-of-way maps, depicting properties in detail.
- Track agricultural surface water uses and reports to Finance for billing.
- Assists with the preparation of a variety of engineering reports.
- Establish and maintain cooperative working relationships with co-workers, outside agencies, and the public.
- Attend meetings representing the District interests as assigned.
- Regular attendance and adherence to prescribed work schedule to conduct job responsibilities.

Other Duties:

- Assists with construction inspection assignments.
- Aids the public on a variety of subjects such as the location of District facilities, topographical maps, availability of services, and district design requirements.
- Performs related duties as assigned.
- Standard office practices and procedures.

Physical Activities:

- Travels by motor vehicle conducting district business.
- Work at a desk for an extended period.
- Work in an office environment, lift and move objects up to 15 pounds such as large binders, books, and small office equipment.
- Sufficient finger/hand coordination and dexterity to operate and adjust office equipment.
- Regularly uses a telephone for communication.
- Use office equipment such as computers, copiers, plotters and FAX machines.
- Hearing and vision within normal ranges with or without correction.

EMPLOYMENT STANDARDS

Knowledge of:

- Basic knowledge of civil engineering principles and practices.
- Algebra, geometry, and trigonometry.
- Methods and procedures for describing real property.
- Technical report writing.
- Principles, methods, instruments, and techniques used in engineering drafting including Auto CAD and GIS.

Ability to:

- Perform a variety of technical engineering support work.
- Gather data and make a variety of engineering computations.
- Perform drafting assignments using Auto CAD and GIS.
- Assist with the development and preparation of engineering reports including CEQA/NEPA compliance with construction projects and permit applications for such work.
- Assist with construction inspection work.
- Use computer systems and software packages related to engineering analysis and functions.
- Effectively represent the District's engineering functions with the public, other government agencies, contractors, and developers.

Environmental Factors:

- Exposure to the sun: 50% to 100% work time spent outside a building and exposed to the sun.
- Work above floor level: Some work done on ladders or other surfaces from 4 to 12 feet above the ground.
- High temp: Considerable work time in hard manual labor in temperatures between 80-100 degrees.
- Humidity: Work in areas with unusually high humidity.
- Wetness: More than 10% of the work time getting part or all the body and/or clothing wet.
- Noise: Occasionally there are unusually loud sounds.
- Slippery surfaces: Occasional work on unusually slippery surfaces.
- Oil: Some parts of the body in contact with oil or grease occasionally.
- Dust: Works in or around areas with minor amounts of dust.
- Irregular or extended work hours: Occasionally required to change working hours or work overtime.

QUALIFICATIONS

Any combination of education and experience that would likely provide the necessary knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

Required Certification/Education/Experience/License:

- Certification:
  - No certification is required.

- Education:
  - Completion of sixty semester units or equivalent quarter hours in an accredited college or university in a pre-engineering, or closely related curriculum.

- Experience:
  - One (1) year of responsible technical experience in engineering support work, and one (1) year of Auto CAD and/or GIS experience.
  - Two (2) or more years of required experience is highly desirable.

- License:
  - Possession of a valid California (Class "C") Driver's License may be required at the time of appointment. Failure to obtain or maintain such required license(s) may be cause for disciplinary action. Individuals who do not meet this requirement due to a physical disability will be considered for accommodation on a case-by-case basis.
  - Possession and proof of a driving record free of multiple or serious traffic violations or accidents for two (2) consecutive years.

The specific statements in each section of this job description are not intended to be all-inclusive. They represent typical elements and are necessary to successfully perform the job.