ENGINEERING TECHNICIAN

DEFINITION

Under supervision to perform a variety of difficult subprofessional engineering office, field surveying, inspection, materials analysis, and drafting work; to assist the professional engineering staff; and to perform related work as required.

EXAMPLES OF DUTIES

Performs a wide variety of difficult drafting and engineering drawing work from field survey notes, property description and construction notes; prepares detailed engineering drawings of structures and equipment from specifications and verbal descriptions; performs difficult engineering computations; tabulates data and prepares tables and graphs; investigates complaints involving traffic control engineering; conducts field traffic surveys and traffic counts; prepares summary reports and makes recommendations; performs subprofessional engineering studies and design work for engineering projects that involve independent collection and analysis of data; answers inquiries by providing information shown on maps and in office files; assists in the securing of rights-of-way, easements, and leases; calculates and computes quantities and costs of material for a variety of construction projects; receives and assists the public at the counter, providing information on a wide range of questions; constructs and maintains maps; drafts plans. plots cross sections and profiles, and updates maps; maintains records and compiles information for monthly reports; participates in site plan reviews; processes preliminary service applications; maintains a variety of files; performs surveying and staking of City projects; summarizes field survey notes; reviews plans and specifications; compiles, organizes, inputs, and interprets data for automated system activities; may oversee survey activities such as route locations for water and wastewater lines, location of property lines, and easements; may perform field inspection of capital projects and components; performs subprofessional traffic engineering, field investigations, plan checks, reports, and studies.

ENGINEERING TECHNICIAN

SPECIAL REQUIREMENTS

Possession of an appropriate California driver's license.

EMPLOYMENT STANDARDS

Knowledge of:

- Basic principles of civil engineering and traffic engineering.
- Basic engineering, drafting, designing, and mathematics techniques.
- Basic traffic engineering design, procedures, and policies.
- Surveying principles and practices.
- Public works plans and specifications.
- Legal procedures related to property descriptions, title searches, and easements.
- Use of computer equipment and software used in engineering projects.
- General public works construction techniques, methods, materials, and equipment.
- Safe work practices.
- Research methods and procedures.

and

Ability to:

- Assist in engineering design work on City improvement projects.
- Perform traffic engineering work, conduct field traffic surveys and traffic counts.
- Prepare, read, and interpret field notes, construction specifications, and legal property descriptions.
- Perform precise office engineering work.
- Perform engineering drafting with skill and accuracy.
- Inspect public works and structural construction projects to determine compliance with approved plans, specifications, and City standards.
- Effectively utilize automated equipment and software.
- Prepare a variety of reports and presentations.
- Research, collect, and analyze information related to public works engineering functions.
- Interpret, explain, apply, and enforce a variety of laws, rules, and regulations.

ENGINEERING TECHNICIAN

EMPLOYMENT STANDARDS - (cont.)

- Effectively represent the public works engineering functions of the Department with concerned individuals, community organizations, and other governmental agencies.
- Establish and maintain cooperative working relationships.
- Communicate effectively orally and in writing.

and

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 the knowledge and abilities would be:

Education: College course work from an accredited college or university in civil engineering or closely related field.

Work Background: One year of subprofessional civil engineering experience involving public works design and construction.

August 1992 December 1995 August 2000 (Res. #00-101) October 2000 (Res. #00-136)