

ENGINEERING TECHNICIAN I

Class Definition

Under close supervision, performs technical engineering work in the field or office involving drafting, land surveying and related tasks.

Distinguishing Characteristics

Engineering Technician I is the entry-level class in the Engineering Technician series. Incumbents perform engineering computations, drafting, and land surveying duties. This class is distinguished from Engineering Technician II in that incumbents of the latter work under minimal supervision. The Engineering Technician series differs from the Engineering Aide series in that incumbents of the latter generally perform field-related manual tasks similar to assisting in a survey crew or conducting traffic counts.

Typical Tasks

(An incumbent may not be assigned all duties listed, nor do the examples cover all duties which may be assigned.)

Performs technical engineering and cost computations, prepares plans and specifications under supervision or from pre-determined standards, and prepares sketches and exhibits.

Performs drafting and map making duties related to engineering projects, including special planning projects, land-use studies, zoning matters, traffic engineering studies, and land division entitlement map processing.

Prepares and reviews legal descriptions under the responsible charge of a professional engineer licensed to perform land surveying by the State of California.

Prepares routine drawings from field notes; reduces field notes; plots and checks plan views, profiles and cross sections; performs routine engineering computations.

Assists in the preparation of development agreements.

Performs engineering calculations, cost estimates and fee calculations relative to entitlements.

Plots profiles and cross sections; makes as-built drawings; reduces survey notes; prepares and maintains maps; and plots land divisions from written property descriptions.

Knowledge, Abilities, and Skills

Knowledge of engineering techniques and practices sufficient to enable one to perform land survey work and to prepare engineering maps, etc.

Knowledge of mathematics through trigonometry.

Knowledge of engineering maps, records, symbols and nomenclatures.

Knowledge of data processing equipment and formatting.

Ability to learn proper techniques of precise land survey work, engineering computations, reduce field notes and skilled drafting.

Ability to interpret and work from oral and written instructions and sketches.

Ability to interpret and write property descriptions.

Ability to communicate effectively, both orally and in writing.

Ability to operate a motor vehicle safely.

Ability to learn land division processes and records.

Ability to establish and maintain effective working relationships with co-workers and the public.

Skill in the use of engineering drafting and land surveying instruments.

Skill in the use of programmable calculators too run traverse closures.

Minimum Qualifications

Twelve (12) units of college level coursework in engineering, geometry, trigonometry, drafting, surveying, or related field, and one (1) year of experience in construction or technical engineering work. An additional year of technical engineering work experience may be substituted for the required education.

NOTE: An Engineering Technician I, after one year of experience, and recommendation of the appointing authority, may be promoted to Engineering Technician II, upon successful completion of a non-competitive qualifying examination.

Necessary Special Requirement

Possession of a valid California Driver's License at time of appointment.

APPROVED: (Signature on file)
Director of Personnel Services

DATE: 10/01/90