

ENGINEER I

DEFINITION

Under general supervision, assists in the performance of professional engineering and architectural work related to the design, location, construction, and maintenance of structures, facilities, or other city projects; performs related work as assigned.

CLASS CHARACTERISTICS

This is the entry level in the Engineering I/II/III flexible classification series. Engineer I is distinguished by assignments involving the application of principles of engineering normally acquired by completion of a formal four year engineering curriculum in engineering or architecture to practical problems encountered in the execution of engineering assignments. Promotion is considered on a merit basis subject to the recommendation of the department head.

ESSENTIAL FUNCTIONS

These functions may not be present in all positions in multiple position classes. When a position is to be filled, the essential functions will be noted in the announcement of position availability.

Prepares plans specifications and cost estimates for minor projects involving road, drainage, building, and similar facilities.

Assists in field investigations and studies in preparation of preliminary and final plans, specifications, and cost estimates for a variety of projects such as drainage systems, roads, waste facilities, highways, buildings, and flood control.

Compiles data for and assists in conducting studies or tests relating to the location, size and capacity of other engineering structures, buildings, or facilities.

Assists in the review of portions of plans for structures and projects prepared by outside agencies or private firms to determine if they are in accordance with department standards and practices and sound engineering principles.

Assists in the preparation of studies and/or testing used in traffic analyses, flood plain studies and other engineering reviews.

Assists in the development, implementation, and/or administration of construction and operations contracts for various city projects and programs.

Assists in the preparation of environmental documents, permit and grant applications related to the operation of city facilities as required by federal law.

Maintains records and prepares reports.

QUALIFICATIONS GUIDELINES

Education and/or Experience

Any combination of education and/or experience that has provided the knowledge, skills, and abilities necessary for acceptable job performance. Example combinations include graduation from an ABET (Accreditation Board for Engineering and Technology) accredited four year college or university with a Bachelor's degree in engineering, architecture, land surveying; OR possession of a valid "Engineer-in-training" (EIT) OR "Land Surveyor in Training (LSIT) issued by the State of California.

Knowledge, Skills, and Abilities

Working knowledge of principles of all aspects of engineering and their application to a variety of engineering problems; topographic and construction surveying; mechanics and properties of materials; engineering economics and real property descriptions; knowledge of engineering drafting methods and equipment; basic principles of geology, hydraulics, mathematics, and meteorology as applied to hydrology; computer science, and geomorphology; computer modeling techniques.

Ability to maintain effective working relationships with other City departments, engineers, architects, contractors, the public and other governmental entities; direct the work of others; communicate effectively both orally and in writing; research and prepare complex engineering reports; review and check complex engineering designs, computations, plans and studies; understand, explain and apply policies and procedures; analyze unusual situations and resolve them through application of management and engineering principles and practices; establish and maintain effective relationships with the community at large, the City Council, and other public officials.

Special Requirements

Possession of or ability to obtain a Class C California driver's license and a satisfactory driving record.

PHYSICAL PROFILE: Category I; 7, 12.

ENGINEER1.SPC