ASSISTANT ENGINEER

DEFINITION

Under general supervision, performs technical and paraprofessional engineering duties associated with a variety of public works projects; performs related duties as required.

DISTINGUISHING CHARACTERISTICS

The Assistant Engineer is the entry level within the professional engineering series. It is distinguished from the Associate Engineer by the level of complexity required of regular engineering assignments and the supervision exercised over personnel and projects.

REPRESENTATIVE DUTIES

The duties listed below are examples of the work typically performed by employees in this class. An employee may not be assigned all duties listed and may be assigned duties which are not listed below. Marginal duties are those which are ***least*** *likely to be essential functions for any single position in this class.*

1. Checks plans prepared by in-house staff, other agencies, contractors and the public for conformance of codes, standards, current maps and/or plans, policies, engineering principles and conditions for approval.

2. Acts as project manager of public works construction projects; prepares schedules and cost estimates; supervises drafting of plans; prepares requests for proposals; reviews bids and contract documents; inspects work in progress; resolves problems encountered in project design; coordinates progress payments; coordinates work with other agencies and departments; maintains files related to project.

3. Surveys or supervises survey crew using a variety of equipment including traditional and modern tools; performs survey calculations; sets stakes and may assist in or perform routine field design.

4. Coordinates land development projects with consulting firms; prepares legal descriptions; reviews parcel and subdivision maps for conformance with state regulations.

5. Prepares preliminary and final designs for projects of average difficulty; designs structures and appurtenances or assists in designing facilities from written/verbal direction which require innovation, problem solving and frequent choices in the application of a variety of standard methods; determines financial implication of various designs and presents cost analyses.

6. Drafts, draws and revises maps, detailed and/or scaled drawings; calculates areas and performs other mechanical computations; oversees development of geographic information systems.

7. Conducts a variety of special projects including traffic and hydraulic studies, prepares grant proposals.

8. May lead the work of technical engineering staffing supervising technical processes; responds to public complaints and questions regarding codes, ordinances and permits.

9. Provides temporary and vacation relief in similar occupations field as necessary.

10. Represents and supports the policies and procedures established by the City Council, City Manager, Department Heads and Division Chiefs.

EMPLOYMENT STANDARDS

Education and/or Experience
Completion of twenty-four semester units of college coursework in technical engineering and related mathematics and five years of technical, public works and engineering experience involving survey, design or construction management duties or any combination of training and experience that provides the desired knowledge and abilities.

Certification as Engineer-in-Training (EIT) or Land Surveyor-in-Training (LSIT) by the State of California and extensive experience supplemented by additional coursework in civil engineering and related mathematics may substitute for the above.

Knowledge of:
Modern practices of civil engineering as applied to the construction and maintenance of public works projects and traffic systems; legal implications and code requirements which affect design projects; drafting design engineering; survey data collection techniques and equipment; geographic information systems software and mapping techniques; safe work practices.

Ability to:
Perform mathematical calculations for engineering design; analyze public works plans and apply necessary engineering principles; plan and design average complexity projects; prepare routine bid specifications; perform difficult computations; make recommendations for the solution of engineering problems; work independently in support of professional engineer; provide lead supervision to technical engineering staff in survey and drafting assignments; communicate effectively, both verbally and in writing; establish and maintain effective working relationships; understand and follow verbal and written directions.

Special Requirements
Possession of or ability to obtain a valid California Driver's License.

Physical Demands
Sitting, standing, walking, some stooping and bending. Dexterity and coordination to handle files and single pieces of paper; occasional lifting of objects up to 25 lbs., such as files, stacks of paper and other reference materials. Moving from place to place within the office; some reaching for items below and above desk level.

WORKING CONDITIONS

Environment is generally clean with limited exposure to conditions such as dust, fumes, odors, and noise. Video display terminal is used on occasional basis. Temperature fluctuations due to both seasonal extremes and working in and out of doors. Independent travel throughout the area is required.

Date Adopted: August 6, 1996