

ASSOCIATE ENGINEER I

DEFINITION

Under general supervision, to perform a variety of professional civil engineering/land surveying work in the field and in the office; to prepare plans, designs, and specifications for projects; to review work prepared by outside consultants; to perform construction inspections; to prepare a variety of reports; and to do related work as required.

DISTINGUISHING CHARACTERISTICS

This is the entry and first working level in the professional Associate Engineer class series. Incumbents should have considerable training in engineering work and/or technical engineering work experience. Incumbents perform the less complex professional engineering work as they become familiar with the operations and policies of the Public Works Agency. This level is distinguished from Associate Engineer II by the performance of a more narrow range of less complex assignments under closer supervision. When an incumbent has developed the requisite background and experience, they may be promoted to the level of Associate Engineer II, typically 2 years. Positions in this class may provide some lead direction for subprofessional and paraprofessional engineering staff.

REPORTS TO

County Engineer or his or her designee.

CLASSIFICATIONS DIRECTLY SUPERVISED

May provide some lead training and work direction.

EXAMPLES OF DUTIES

Duties may include but are not limited to the following:

Designs, prepares, and evaluates preliminary and final plans and specifications for a variety of road, bridge, drainage, and related public works projects, requiring professional engineering expertise; learns to perform a variety of project development and coordination assignments; may perform resident engineering work, including contract administration, inspection, and coordination; ensures that contractors meet proper standards, specifications, cost control, and time requirements; approves change orders and progress payments; performs foundation and hydrology studies; receives and researches a variety of inquiries; collects, organizes, summarizes, and analyzes a variety of technical engineering/land surveying data; performs checking of survey, parcel, and final maps for compliance with applicable laws, ordinances, and established survey

practices; learns to prepare grant proposals; assists with the review of environmental impact reports; prepares preliminary reports for tentative subdivision map conditions; performs field surveys; uses a computer to reduce survey data; prepares a variety of engineering calculations; develops data for the acquisition of right-of-way; prepares cost estimates; reviews laboratory analyses and materials reports for compliance; performs traffic studies; develops and proposes solutions to engineering problems; receives applications and reviews, approves, and issues permits, providing a variety of technical engineering advice to the public and other agencies; develops and administers storm water pollution prevention plans (SWPPPs) and obtains water quality permits; prepares floodplain determinations; performs airport administration; may supervise field and office land surveying activities; may serve as a member of the County Technical Advisory Committee; may provide some work direction for sub-professional and paraprofessional engineering staff; provides some training for support staff; represents the County Public Works Agency in meetings with contractors, engineers, developers, property owners, attorneys, and representatives of other public agencies; maintain confidentiality.

TYPICAL PHYSICAL REQUIREMENTS

Sit for extended periods; frequently stand and walk; ability to walk on slippery and uneven terrain; sufficient manual dexterity and eye-hand coordination to operate office and field engineering equipment; corrected hearing and vision to normal range; verbal communication; use of audio-visual equipment; use of office equipment including computers, telephones, calculators, copiers, and FAX.

TYPICAL WORKING CONDITIONS

Work is performed in both office and outdoor environments; some exposure to variances in temperature and weather conditions; continuous contact with staff and the public.

DESIRABLE QUALIFICATIONS

Knowledge of:

- Principles, practices, and methods of Civil Engineering and land surveying as applied to the design, acquisition, construction, and maintenance of roads and Public Works facilities.
- Construction methods, materials, and equipment.
- Proper inspection methods and procedures.
- Research and statistical methods.
- Principles of project development and coordination.
- Use of computers and computer applications related to engineering/surveying work.
- Autocad program and applications.
- ArcMap GIS program and applications.
- Floodplain Management (Certified Floodplain Manager - CFM)
- Stormwater Quality (Qualified SWPPP Developer/Practitioner – QSD/QSP)

Ability and willingness to:

- Prepare plans, designs, and specifications for public works facility development, construction, and maintenance projects.
- Learn, interpret, and apply a variety of laws, rules, and regulations related to public works engineering.
- Perform engineering reviews of designs, plans, and specifications prepared by others.
- Develop and coordinate assigned projects.
- Prepare comprehensive engineering reports.
- Analyze and evaluate engineering and statistical data and information, developing sound recommendations.
- Develop accurate records, sketches, and notes.
- Perform construction and project administration, ensuring compliance with contracts, plans, and specifications.
- Make accurate engineering and surveying calculations.
- Operate a computer and use appropriate software in the performance of public works engineering and surveying responsibilities.
- Effectively represent the County Public Works Department.
- Establish and maintain cooperative working relationships.
- Maintain confidentiality.

Training and Experience: Any combination of training and experience which would provide the required knowledge and abilities is qualifying. A typical way to obtain the required knowledge and abilities might be:

Two (2) years of increasingly responsible technical engineering experience in public works engineering at a level equivalent to an Engineering Technician.

AND

Possession of a Bachelor's Degree in Civil Engineering or related field.

Special Requirements: Possession of a driver's license valid in California.

This job specification should not be construed to imply that these requirements are the exclusive standards of the position. Not all duties are necessarily performed by each incumbent. Additionally, incumbents will be required to follow instructions and to perform other job related duties as may be required.

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Salary Range – 84