ASSISTANT IN CIVIL ENGINEERING I

DEFINITION

Under general supervision, to perform a variety of technical and paraprofessional civil engineering work in the field and in the office; to prepare plans, designs, and specifications for projects; to review work prepared by outside consultants; 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 Assistant In Civil Engineering class series. Incumbents should have considerable training in engineering work and/or technical engineering work experience. Incumbents perform the less complex paraprofessional engineering work as they become familiar with the operations and policies of the Public Works Agency. As soon as an incumbent has developed the requisite background and experience, they may be promoted to the level of Associate In Civil Engineering II. This level is distinguished from Assistant In Civil Engineering II by the performance of a more narrow range of less complex assignments under closer supervision. Positions in this class may provide some lead direction for other staff.

REPORTS TO

Deputy County Engineer.

CLASSIFICATIONS DIRECTLY SUPERVISED

None.
EXAMPLES OF DUTIES

Designs, prepares, and evaluates preliminary and final plans and specifications for a variety of road, bridge, drainage, and related public works projects, requiring paraprofessional 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 data; 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 earth volume and other 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; may oversee water quality programs; may serve as a member of the County Technical Advisory Committee; may provide some work direction for maintenance and support 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.

TYPICAL PHYSICAL REQUIREMENTS

Sit for extended periods; frequently stand and walk; normal manual dexterity and eye-hand coordination; corrected hearing and vision to normal range; verbal communication; use of office equipment including computers, telephones, calculators, copiers, and FAX.

TYPICAL WORKING CONDITIONS

Work is usually performed in an office environment; occasionally works outside; some exposure to variations in temperature and humidity; continuous contact with staff and the public.

ASSISTANT IN CIVIL ENGINEERING I - 3
DESIRABLE QUALIFICATIONS

Knowledge of:

- Principles, practices, and methods of Civil Engineering as applied to the design, construction, and maintenance of roads and Public Works facilities.
- Preparation of designs, plans, and specifications for the development of roads, bridges, drainage, erosion control, 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 work.

Ability 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.
- Perform a wide scope of paraprofessional engineering work.
- 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 calculations.
- Operate a computer and use appropriate software in the performance of public works engineering responsibilities.
- Effectively represent the County Public Works Agency with the public and other government agencies.
- Establish and maintain cooperative working relationships.
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 required knowledge and abilities would be:

Five (5) years of increasingly responsible technical engineering experience in public works engineering at a level equivalent to Senior Engineering Technician with Amador County.

OR

Completion of an advanced educational training equivalent to a Bachelor's Degree in Civil Engineering from an accredited college or university.

Special Requirements: Possession of an appropriate California Driver's License issued by the California Department of Motor Vehicles.