



ASSOCIATE CIVIL ENGINEER

Definition

Under direction, to supervise and perform responsible professional field and office engineering and surveying work in connection with the location, design, construction and maintenance of public works; and to participate in a variety of services and special studies requiring the application of professional knowledge and skills.

Typical Tasks

- Assigns work, gives instructions and passes upon engineering problems in connection with standards and designs involved in maintaining and constructing roads and highway, building, drainage facilities, bridges and other public works projects;
- Determines routes, alignment and grades for roads, and calculates earthwork quantities for excavation and filling;
- Makes stress analyses of bridge, culvert and building structures to determine best design;
- Makes estimates of materials needed for construction work;
- Directs other engineering personnel in preparing final plans and maps;
- Supervises the preparation of detailed drawing and specifications;
- Writes reports and makes estimated of a specialized nature in connection with various engineering projects;
- Makes preliminary designs and estimates for determining budgetary needs for construction and maintenance activities;
- Performs related work as required.

Employment Standards

Training and experience equivalent to graduation from college with major work in civil engineering or a related field and four years of experience in highway or public works experience.

Registration as a civil engineer in the State of California at the time of appointment.

Knowledge of:

- Methods, materials and equipment used in public works construction and in surveying for and planning such construction;
 - Modern standards of alignment and grade of highways;
 - Structural design of highway, drainage and other public works structures; topographical and construction surveying;
 - Accurate mapping methods;
 - Principles of supervision and training.
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Ability to:

- Supervise and review the work of others; inspect plans for the methods of construction;
- Perform design and lay-out work;
- Prepare specifications and write technical reports;
- Establish and maintain cooperative working relationships with those contacted in the course of work.