Assistant Engineer II

Summary
Perform engineering assignments of moderate difficulty in the design, plan review, investigation, inspection, and construction of public facilities, water resources, or community development projects.

Class Characteristics
Direction is provided by a higher-level supervisor or manager; responsibilities may include direct or indirect supervision of professional, technical, and/or clerical staff.

This is the journey-level class in the professional engineering series not requiring registration and may serve as project engineer on a limited basis. The Assistant Engineer II is distinguished from the Associate Civil Engineer in that the latter serves as project leader on assignments requiring considerable professional knowledge of engineering principles and technical engineering analysis, provides direction to engineering and technical personnel, and requires registration as a Civil Engineer. As assigned responsibilities and breadth of knowledge increase with experience and as registration is achieved, the Assistant Engineer II may be eligible for the next higher class of Associate Civil Engineer.

Essential Duties, Skills, and Demands of the Position
The duties, skills, and demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with a disability to perform the essential duties, skills, and demands.

Duties:
Participate in the preparation of plans and specifications for the construction of wastewater facilities, streets, water systems, storm drains, sewers, and related public works projects and research project design requirements.

Perform moderately difficult calculations and prepare estimates of time and material costs.

Assign routine investigations, design, and drafting tasks to technical staff and review completed work; assist in the solution of difficult problems.

Participate in the review and processing of plans for public works projects and private developments affecting streets, water, sewers, storm drain, and related public works facilities and ensure conformance to City standards; coordinate public works and utility activities with other City departments, divisions and sections, and with outside agencies.

Review development applications including reports, tentative and final maps, easements, right of ways, and legal descriptions and prepare reports and/or conditions of approval for development applications.

Contact other agencies and utilities to review field problems related to the design, construction, operations, and maintenance of wastewater collection and treatment facilities, storm drain systems, recycled water systems, and potable water systems.

Investigate field problems affecting property owners, contractors, and maintenance operations; order survey, mapping, and data collection.

Plan and conduct engineering studies and write clear and concise reports with recommendations and conclusions.

Give information over the counter and telephone concerning encroachment and permit requirements, amount of fees, and procedures to apply for permits.

Assist in training and direction of professional and technical staff as assigned; participate in the selection and direction of engineering contract professionals; coordinate support services such as survey crew, engineering technicians, and field crews.

Make presentations and serve as staff support to City Council, commissions, and review boards.

May act as project engineer on limited design and construction contracts, preparing progress reports, and recommending progress payments and change orders as necessary; administer a wide variety of construction contracts.

Perform related duties as assigned.

Skills/Abilities:
Analyze, identify, problem solve, and interpret engineering plans, computer applications, and engineering designs.

Observe, inspect, and assess others' work.

Direct the work of other engineering or technical staff on assigned projects.

Interpret and explain engineering principles and practices.

Analyze and interpret construction contracts and remember and understand regulations.

Make complex engineering computations.

Review, design, and supervise the preparation of engineering plans and studies.

Identify and define technical problems.

Adjust workload to meet deadlines.

Apply principles of logic and scientific reasoning to develop and evaluate alternative courses of action and determine appropriate solutions.

Read, understand, and interpret complex technical and legal documents, maps, technical drawings, and plans.

Prepare technical engineering reports as assigned; maintain accurate records and files.

Learn and observe all appropriate safety precautions including, but not limited to, Cal/OSHA and City policies.

Operate office equipment including computers and supporting word processing, spreadsheet, and database applications.

Communicate clearly and concisely, both orally and in writing.

Establish and maintain effective working relationships with those contacted in the course of the work.

Physical Demands and Work Environment:
While performing the duties of this job, the employee is frequently required to sit for extended periods to read, write reports and talk or listen. The employee is occasionally required to conduct field investigations and operate standard office machines, (i.e. blueprint, photocopiers and computer terminals) and talk or listen. The employee must occasionally lift and/or move up to sixty pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception and the ability to adjust focus.

Qualifications
Knowledge of:
Principles and practices of civil engineering as applied to land development, flood control, streets, wastewater treatment and collection, potable water, recycled water, and storm drain systems.

Methods, materials, and techniques used in the construction of public works facilities.

Modern development, current literature, and sources of information regarding engineering theory and practices.

Methods of using engineering equipment including, survey instruments and computer-aided design and drafting.

Safety hazards and appropriate precautions applicable to work assignments.

Principles of supervision as they relate to training, directing, and reviewing the work of subordinates.

Applicable sections of the subdivision map act.

Office procedures, methods, and equipment including calculators, computers, and applicable software applications such as word processing, spreadsheets, databases, and engineering computer programs.

Education and Experience
Any combination equivalent to the education and experience likely to provide the required knowledge and abilities would be qualifying. A typical way to gain such knowledge and abilities would be:

Education:
A Bachelor's degree with major course work in civil engineering or a related field.

Experience:
Two years of professional civil engineering experience equivalent to Assistant Engineer I with the City of Petaluma.

Certifications/Licenses:
Possession of a valid California Class C driver’s license.

Possession of an Engineer-In-Training certificate in Civil Engineering is desirable.

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