

## **ASSOCIATE ENGINEER**

### **DEFINITION**

Under general supervision, perform a variety of difficult and complex technical and paraprofessional civil engineer's tasks in the field and office; performs work related to management, planning, design, construction, and maintenance of County public works projects and daily departmental operations; provides project oversight; confers with developers, contractors, and representatives of other agencies regarding facility and infrastructure development; provides oversight of professional services and construction contracts.

### **DISTINGUISHING CHARACTERISTICS**

This classification is distinguished from the Assistant Engineer in that this is an advanced journeyman – level class in the engineering series requiring a professional license.

### **REPORTS TO**

Assistant Director of Public Works or Director of Public Works.

### **CLASSIFICATION DIRECTLY SUPERVISED**

May provide technical and functional direction to technical and office support staff as needed.

## **ASSOCIATE ENGINEER - 2**

### **EXAMPLES OF DUTIES**

- Plans, designs, and inspects various phases of civil engineering public works construction projects, including defining the scope of the project; performing historical document research and review; surveying; and engineering analysis of alternatives.
- Prepares plans, specifications, and cost estimates; performs research, map and field studies, and surveys.
- Drafts site plans with specialized computer software; applies engineering principles and practices to specific problems; coordinates construction schedules with other projects and agencies, prepares and reviews cost estimates, and inspects construction of projects to ensure compliance with construction documents.
- Understands principles and procedures for soils and materials testing and acceptance procedure; procures engineering supplies; and performs other related planning and design work.
- Reviews construction plans prepared by consulting engineers and private contractors to verify compliance with improvement requirements; checks plans for conformance with regulations; reviews engineering calculations of other engineers or engineering technicians; participates in pre-design, construction, and utility coordination meetings; and issues construction permits.
- Provides construction oversight and inspection of public works construction projects, including coordinating work with other divisions and County departments, reviewing and inspecting work to ensure conformance with plans and specifications, tracking and maintaining all project accounting, coordinating schedules, and providing public notices of projects.
- Provides technical direction and training to other engineering and technical staff.
- Investigates field problems affecting property owners, contractors, and maintenance operations; responds to citizen inquiries and complaints; provides information to the public in person, via telephone or other means of communication regarding grading, encroachment permits, right-of-way and property line information, improvement plan check, and payment processes.
- Keeps immediate supervisor and designated others accurately informed concerning work progress, including present and potential work problems and suggestions for new or improved ways of addressing such problems.
- Attends meetings, conferences, workshops, and training sessions and reviews publications and audio-visual materials to become and remain current on principles, practices, and new developments in assigned work areas.
- Communicates and coordinates regularly with appropriate others to maximize the effectiveness and efficiency of interdepartmental operations and activities.
- Performs other related duties as assigned.

## **ASSOCIATE ENGINEER - 3**

### **PHYSICAL DEMANDS**

Must possess mobility to work in a standard office setting and use standard office equipment, including a computer; to inspect County development sites, to operate a motor vehicle, and to visit various County and meeting sites; vision to read printed materials and a computer screen; and hearing and speech to communicate in person, before groups, and over the telephone. This is partially a sedentary office classification; the job also involves field inspection work requiring frequent walking at inspection site areas to monitor performance and to identify problems or hazards; standing in work areas and walking between work areas may be required. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard, typewriter keyboard, or calculator and to operate standard office equipment. Positions in this classification occasionally bend, stoop, kneel, reach, push, and pull drawers open and closed to retrieve and file information. Employees must possess the ability to lift, carry, push, and pull materials and objects, up to 30 pounds as necessary to perform job functions.

### **WORKING CONDITIONS**

Employees partially work in an office environment with moderate noise levels and controlled temperature conditions, and partially in the field and may be exposed to loud noise levels, cold and hot temperatures, inclement weather conditions, road hazards, vibration, confining workspace, chemicals, mechanical and/or electrical hazards, and hazardous physical substances and fumes. Employees may interact with staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures.

### **DESIRABLE QUALIFICATIONS**

#### **Knowledge of:**

- Civil engineering principles, techniques, policies, and procedures.
- General design, layout, and construction practices for public improvements such as streets, storm drains, grading, and landscaping.
- Bidding requirements for public works projects.
- Project management and contract administration principles and techniques.
- Engineering plan types, review practices, and permit filing and approval procedures.
- Principles, practices, and methods of Civil Engineering as applied to the design, construction and maintenance of roads, airport, solid waste, water quality, and other Public Works facilities.
- Pertinent State, Federal, and local laws, regulations, and ordinances related to public works engineering.
- 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.

## **ASSOCIATE ENGINEER - 4**

### **Knowledge of - continued:**

- Computerized drafting methods and systems.
- Principles of project development and coordination.
- Practices of researching engineering and design issues, evaluating alternatives, making sound recommendations and preparing and presenting effective staff reports.
- Methods and techniques of effective technical report preparation and presentation;
- Applicable Federal, State, County, Department, and Division laws, regulations, codes, policies and procedures.

### **Ability to:**

- Conduct complex civil engineering research projects, analyze complex problems, evaluate alternatives, make sound recommendations, and prepare effective technical staff reports.
- Understand, and interpret engineering construction plans, specifications, and other contract documents.
- Conduct reviews of engineering studies and prepare reports with recommendations.
- Develop and administer contracts for professional services and construction in a public agency setting.
- Read, interpret, apply, and explain technical written material and complex laws, codes, regulations, ordinances, and County engineering policies and procedures.
- Effectively represent the department and the County in meetings with governmental agencies, community groups, various business, professional, and regulatory organizations and individuals.
- Coordinate assigned activities with other County departments and agencies as required.
- Coordinate and direct construction contractors while inspecting work within County Right of Way to obtain approved work standards.

## **ASSOCIATE ENGINEER - 5**

### **EDUCATION AND EXPERIENCE:**

Qualifications needed for this position:

Four (4) years of increasingly responsible, full time, Civil Engineering experience in planning, development, construction and maintenance of Public Works facilities at a Journeyman Engineer level,

AND

Bachelor's Degree with major work in Civil Engineering and must be a licensed Engineer.

### **Special Requirements:**

Must possess a valid driver's license at time of application and obtain a valid California Driver's License by the time of appointment. The valid California Driver's License must be maintained throughout employment.

All County of Plumas employees are designated Disaster Service Workers through State law (California Government Code Section 3100-3109). Employment with Plumas County requires the affirmation of a loyalty oath to this effect. Employees are required to complete all Disaster Service Work related training as assigned, and to return to work as ordered in the event of an emergency.