

## **PUBLIC WORKS SURVEYOR**

### **DEFINITION**

Under general direction, to plan, organize, direct, and manage the survey functions in the Public Works Agency of Amador County; to be responsible for right-of-way, deeds, maps, topographic maps, and perform a variety of the more difficult and complex technical and paraprofessional engineering field and office support work; to perform traffic and road related administration work; to supervise technical staff, and to do related work as required.

### **DISTINGUISHING CHARACTERISTICS**

This is the advanced skilled and lead level for professional surveying as well as technical and paraprofessional engineering office and field support work. Incumbents perform a wide range of the more complex office engineering, field engineering, surveying, design support, and permit support work. This class is distinguished from the Senior Engineering Technician class in that Public Works Surveyor performs more complex and specialized assignments, with regard to Land Surveyor qualifications.

### **REPORTS TO**

Public Works Director

### **CLASSIFICATIONS DIRECTLY SUPERVISED**

Inspectors, Engineering Technicians, and other support staff.

### **EXAMPLES OF DUTIES**

Coordinates and administers public works related activities under the Department management staff; may represent the Public Works Agency on the Technical Advisory Committee and with boards and commissions, as delegated; review mergers, compliances, and abandonments; plans, organizes, coordinates, supervises and evaluates field and office surveying work related to highway, bridge and drainage facilities design, construction and maintenance work; selects, supervises, evaluates and disciplines staff; provides for their training and development; reviews requested survey work, establishes survey priorities; schedules and coordinates the work; supervises the researching of maps, deeds and other field survey records to secure data; supervises and reviews the work of field survey parties; provides technical assistance to staff; personally performs professional field and office surveying work; prepares record of survey and topographic maps, plan and

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### **EXAMPLES OF DUTIES (Continued)**

profile drawings, cross-sections, legal descriptions and related records and reports; administers and coordinates professional service contracts for title companies, right-of-way, and survey and photogrammetry contract work; works closely with other divisions, departments, property owners and contractors to explain and coordinate projects; responds to inquiries and complaints; prepares and maintains survey estimates, progress reports, budget reports and a wide variety of related records; ensures that survey work is carried out in a safe and effective manner; monitors developments related to survey work, evaluates their impact and recommends and implements policy and procedure improvements; ensures compliance of survey activities to relevant codes, regulations and guidelines; provides lead direction, work coordination, and training for other staff; performs drafting and mapping assignments using manual or computer aided methods; performs a variety of engineering technical support work in the design and construction of public works, roads, bridges, drainage, capital improvement projects, and related areas; prepares graphic displays, organization charts, and similar materials; prepares and maintains master files of drawings, maps, and specifications, researching and updating information as needed; prepares estimates and specifications; may perform basic construction inspection assignments; performs field and office work related to property and right-of-way boundaries, including the research of files and maps; performs checking of survey, parcel, and final maps for compliance with applicable laws, ordinances, and established survey practices; supervises a survey crew, performing field measurement and elevation work; reviews, processes, and issues encroachment, extra-legal transportation, and a variety of special permits; performs basic traffic engineering and erosion control studies; reads and interprets accident reports, inputting data into a computer system; performs field investigations of accidents and accident sites; receives and logs public complaints about the County road system; confers with transportation companies regarding routing; provides support for professional engineering staff; prepares and maintains mileage maps; prepares Board resolutions for projects; may serve as computer coordinator, training other staff in system and software use; may order and evaluate software for use in the Department; coordinates Public Works grant applications; makes a variety of engineering and mathematical applications; prepares and maintains accurate records, correspondence, technical, and narrative reports; uses a computer and calculators to solve a variety of engineering related problems; provides information to the public, contractors, engineers, developers, and representatives of other government agencies.

### **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

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computers, telephones, radios, 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 and practices of employee supervision, including selection, training, work evaluation and discipline.
- Principles and practices as related to public works design, construction, and right-of-way acquisition.
- Geodetic and photogrammetric, topographic, boundary, and construction surveying.
- Relevant codes, ordinances, and regulations governing the work.
- Instruments, tools, and equipment used in survey work.
- Computer applications related to the work
- Safe work practices and safety regulations related to survey work.
- Principles and practices of contract administration.
  
- Principles, practices, and terminology of a variety of engineering and surveying technical support work, including drafting, mapping, design, construction, permit approval, traffic, and field inspection.
- Public Works grant development and administration.
- Common public works construction methods and materials.
- Engineering mathematics, including geometry and trigonometry.
- Data collection and analysis.
- Use of computers and computer applications related to engineering and surveying work.
- Standard office practices and procedures.
- Principles of lead direction, work coordination, and training.
- Legal property description methods and practices.

#### Ability to:

- Provide lead direction, work coordination, and training for other staff.
- Perform the more difficult and complex technical engineering office and field support work in a variety of areas.
- Perform special assignments, such as grant development and administration

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- or coordination of Department computer services.
- Use drafting materials and equipment or CAD programs to prepare skilled layouts, maps, and graphic materials.
- Analyze and evaluate engineering and statistical data and information,

### **DESIRABLE QUALIFICATIONS (Cont'd)**

- developing sound recommendations.
- Develop accurate records, sketches, and notes.
- Prepare a variety of records and reports.
- Read and interpret deeds, maps, drawings, and engineering plans and specifications.
- Make accurate mathematical calculations.
- Use a computer and computer applications in the performance of technical engineering and surveying support work.
- Effectively represent the Public Works Agency in contacts with the public, contractors, developers, 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:

At least five (5) years of responsible experience performing a variety of professional land surveying and paraprofessional engineering work preferable, including at least two (2) years in a lead or supervisory position.

Advanced educational training in mathematical subjects such as geometry, advanced algebra, or trigonometry and pre-engineering courses in a community college or four year college.

Special Requirements: Possession of an appropriate California Driver's License issued by the Department of Motor Vehicles. Possession of a valid certificate of registration as a licensed Land Surveyor issued by the California State Board of Registration.

