



SURVEY TECHNICIAN III JOB DESCRIPTION

Job Title: **Survey Technician III**

Job Class: **TBD**

Pay Range: **Grade 121**

Effective Date: **April 2024**

FLSA: **Non-Exempt**

Revision Date: **April 2024**

NATURE OF WORK

Under general supervision, performs a variety of paraprofessional technical surveying tasks including right-of-way surveying, boundary surveying, cadastral surveying, geodetic surveying, topographic surveying, and construction surveying, involving the use of conventional and electronic survey measuring instruments including GPS, total stations, and differential levels. The Survey Technician III performs work within the scope of authority and training in assigned area of responsibility.

ESSENTIAL FUNCTIONS:

*The following duties **ARE NOT** intended to serve as a comprehensive list of all duties in this classification, but only a representative summary of the primary duties and responsibilities. Incumbent(s) may not be required to perform all duties listed and may be required to perform additional, position-specific duties.*

- Performs a variety of Survey Technician work for Public Works Department (PWD) engineering programs including survey and technical administrative work for infrastructure projects; performs work within scope of authority; duties may vary according to job assignment.
- Under general supervision, performs work in the accomplishment of control surveys, calculations, and related mapping and digital data entry into GIS to establish and maintain County property lines, boundaries and corners.
- Coordinates the work of a field survey crew; operates a full range of survey equipment including electronic measuring devices, and other technical engineering instruments and equipment.
- Performs survey calculations and preparation of maps and plats.
- Researches legal records, survey records, and land titles to obtain information about property boundaries in areas to be surveyed.
- Conduct surveys to establish legal boundaries for properties, based on legal deeds and titles.
- Assists in performing computation and platting of survey data and preparation of legal descriptions, related thereto.
- Assist the County Surveyor in writing legal descriptions and plat maps for right-of-way and maintenance of section and grid control; resets section corners as needed to preserve section control.
- Assists in preparing data, charts, plots, maps, records and documents related to surveys.
- Computes geodetic measurements and interpret survey data to determine positions, shapes and elevations of geomorphic and topographic features.

- Perform and follow tasks in accordance with WAC 18.43.020(9) & 332-130-100(2) and Washington state land survey standards, techniques, methodologies.
- Operate and assist in inventory survey instrument and all assigned gear, tools, and vehicle.
- Operate, maintain, and calibrate a variety of instruments such as: levels, total stations, global position systems, and all related data collectors, as well as their associated accessories.
- Maintain field notes of survey work performed; process survey information and generate drawings for various engineering and planning projects.
- Manages technical engineering/surveying databases; compiles technical data from a variety of sources; edits and verifies data and updates database; performs quality control checks to ensure data integrity.
- Coordinates projects, activities, and information with other PWD staff, County Departments, contractors, and outside agencies.
- Assist in the condition inspection of County roads, bridges, and infrastructure as needed.
- Develops construction staking layout plans from approved engineering drawings.
- Inspects construction projects to verify compliance to safety and quality standards; observes safety and security procedures and reports potentially unsafe conditions to Supervisor.
- Works with the public and is a positive representative of the County.
- Performs other related work as required.

SUPERVISORY RESPONSIBILITIES

This position does not have direct reports. This position does not indirectly lead and/or supervise employees in the Public Works department.

WORKING ENVIRONMENT/PHSICAL DEMANDS:

The physical demands described herein 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 disabilities to perform the essential functions.

While performing the duties of this job, the employee is regularly required to sit, talk, and hear. Must have the ability to efficiently, write in a neat and legible fashion, at times quickly while being dictated. The employee is often required to stand, walk, use hands to operate, handle, and feel, and to reach with hands and arms. The duties of this position require walking over uneven and/or steep terrain at times for multiple miles, sitting, stooping, climbing, pulling bending, reaching, twisting, and the ability to lift up to 75 lbs, with possible exposure to safety hazards and the use of dangerous tools and equipment occasionally for extended periods of time (i.e. chain saws, weed eaters, machetes, sledgehammers, etc.). Requires finger dexterity, sense of touch, gripping with fingers and hands; ability to see, hear voice conversation, and to speak. Specific vision abilities required by this job include close vision and extended exposure to computer monitors and office lighting.

Work is performed both in an office environment and outdoors with exposure to inclement weather. The employees will occasionally be exposed to outside conditions including; weather; traffic; construction sites; moving mechanical parts; high, precarious places; fumes or airborne particles; toxic or caustic chemicals; and risk of electrical shock. The noise level in the work environment is usually moderate. This position also

requires field work along rivers and streams that require specialized clothing, equipment, and safety precautions.

On occasion the incumbent may be required to travel to meetings or remote work settings outdoors for short periods of time.

DISTINGUISHING CHARACTERISTICS:

This is a journey-level Survey Technician position. Incumbents have greater independence of action and work on more complex tasks under lesser supervision while improving their job skills. Level III technicians must complete all required classes for multiple technical certifications; interact respectfully and professionally; think critically; collaborate; continually and quickly learn; and perform duties as assigned.

EMPLOYMENT STANDARDS:

- Associate's Degree in Engineering, Computer Science, or related field; AND two (2) years' experience as a Survey Technician II or equivalent.
- Specific technical training and successful passing of Survey Exam.
- A valid Washington State Driver's License is required.

KNOWLEDGE AND SKILLS:

Knowledge of:

- County policy and procedures.
- Land surveying and mapping principles, procedures and practices.
- Principles and techniques of drafting, and construction inspection.
- Field surveying practices and techniques, including electronic total station, data collector, network control stations, and GPS/GNSS measuring equipment.
- Statutes, court decisions and other law pertaining to the establishment, locating, dividing and defining of corners, monuments, lines, and boundaries of land.
- Computer skills and applications including, but not limited to: Autodesk Civil3D, Trimble Access, Microsoft Office, etc.
- Mathematics through calculus.
- Geodesy and state plane coordinates.
- OSHA safety rules and regulations and safety standards applicable to hazardous environments.
- Checking designs, details, plans, and specifications of engineering projects.

Skills in:

- Interpreting and applying engineering standards and procedures, Federal and State rules and regulations, and County policies and procedures.
- Microsoft Office, Word, Excel, Publisher, Explorer, and PowerPoint
- Collecting, calculating, and adjusting mathematical computations such as distances, traverses, and elevations.
- Operating and maintaining complex precision surveying instruments, engineering calculators, and personal computers.
- Interpreting technical instructions and analyzing complex variables.

- Reading, understanding, developing, manipulating, and analyzing engineering information in a variety of computerized data formats.
- Safe and efficient operation and maintenance of trucks and equipment according to standard operating and safety procedures.
- Working effectively with others to develop solutions for public works issues.
- Operating a personal computer utilizing standard and specialized software.
- Establishing and maintain effective working relationship with other County employees, public officials, and representatives from other local, State, and Federal agencies.
- Communicating effectively verbally and in writing.