

SNOHOMISH COUNTY JOB DESCRIPTION

ENGINEERING TECHNICIAN V - DRAINAGE

Spec No. 3253

BASIC FUNCTION

The primary duties of this class are in support of the county's surface water management functions. To perform all of the duties of the lower level classification and may perform some complex technical engineering duties when assigned to projects. May be called upon to perform work of crew lead.

STATEMENT OF ESSENTIAL JOB DUTIES

1. Conducts field investigations at the site, analyze the hydrology under the supervision of an engineer and consider the effect of the topography, geology, soils, vegetation, and development on the hydraulic performance of existing flood control structures, roads, levees and dikes, or associated drainage systems under the direction of an engineer; prepares site diagrams of existing conditions and structures; documents problems and code violations, prepares reports and recommends corrective measures.
2. Provides technical assistance and advice to citizens and county staff to promote compliance with surface water management policies, county codes and Best Management Practices; informs property owners of responsibilities and liabilities relating to drainage; propose county projects; makes referrals to appropriate department or agency for resolving problems.
3. Performs design and construction surveying, and hydraulic/hydrologic calculations and analysis; designs projects to solve drainage, flooding or river bank erosion problems under the direction of an engineer; prepares work authorizations and coordinates material acquisitions.
4. Organizes, coordinates, and conducts pre-construction conferences with construction crews, utilities, and county staff to plan project schedules; conduct construction inspections to verify project completion and compliance with standards.
5. Participates in flood emergency response by providing technical assistance to property owners and identifying and coordinating solutions where feasible and appropriate.
6. May provide lead crew function for the collection of GIS (RTK) and total station data for topographic mapping, river channel surveys and project feasibility and design.
7. May use CADD software to perform senior level tasks drafting and technical calculations for design reports, right-of-way plans, construction plans for road, bridge, river management, bank stabilization, stream restoration, and other public works projects.
8. Provides field engineering for plan changes; maintains project documentation and correspondence; prepares work requests; establishes construction practices and erosion control measures at the construction site.

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STATEMENT OF ESSENTIAL JOB DUTIES (Continued)

9. Interprets and implements existing policies that affect drainage, bank erosion or flooding problems, designs, and construction projects; recommends policies and procedures.
10. Coordinate with engineers in researching, analyzing and resolving engineering problems on county and private construction projects.
11. Review the work of other engineering staff as it relates to citizen requests for assistance and design or construction projects; provides training in related work.
12. Attend public meetings to provide information and assistance in resolving issues related to drainage, bank stabilization or other problems.

STATEMENT OF OTHER JOB DUTIES

13. Performs related duties as required.

MINIMUM QUALIFICATIONS

An Associate's degree in civil engineering from accredited program; AND, three (3) years experience in surface water management or construction inspection; OR, any equivalent combination of training and/or experience that provides the required knowledge and abilities. Must pass job related tests.

SPECIAL REQUIREMENTS

A valid Washington State Driver's License is required for employment.

KNOWLEDGE AND ABILITIES

Knowledge of:

- hydrology, hydraulics, and general surveying methods
- general math and trigonometry
- civil engineering principles and practices
- applicable codes, regulations, and standards
- principles, practices and techniques of technical engineering related to area of assignment
- computer aided drafting and design software

Ability to:

- handle difficult and/or angry individuals
- interpret engineering plans and specifications

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KNOWLEDGE AND ABILITIES (Continued)

Ability to:

- make independent decisions
- establish and maintain effective working relationships with other county employees, representatives of other agencies and with the general public
- communicate effectively with engineers, contractors, and developers and staff members
- prepare clear and concise written reports
- independently perform detailed drafting, surveying, inspection or related technical engineering assignments
- plan, schedule and perform crew lead duties

SUPERVISION

Employee reports to a technical or professional supervisor as assigned. Employee may serve as a crew lead worker and be responsible for coordinating the work of their employees on a project site. Work is performed independently or as a member of a crew. Work is reviewed in progress or upon completion for accuracy and adherence to division engineering standards.

WORKING CONDITIONS

Positions in this class typically require daily focus on computer screen for 2+ hours at a time; daily dealing with distraught or difficult individuals; daily precise fingers and hand movements; daily climbing or balancing; daily wearing of protective gear including steel toe boots, safety vest, gloves and hard hat; periodic work with contaminated storm sewers; daily work outdoors in inclement weather; weekly lifting and carrying over 50 pounds; daily operation of a motor vehicle on public roads; weekly operation of county jet boat, computer and GPS unit.

The distinction between this classification and the Engineering Technician, Sr. is that employees of this classification may perform some complex technical engineering duties, may be called upon to perform crew lead duties when assigned to higher level project work and may work on medium size projects.

Snohomish County is an Equal Employment Opportunity (EEO) employer.
Accommodations for individuals with disabilities are provided upon request.

[EEO policy and ADA notice](#)

Class Established: February 1993
Revised: January 1999, September 2005
EEO Category: 3 - Technicians
Pay Grade: 239 - Classified Pay Plan
Workers Comp: 1501 Hazardous