



Josephine County, Oregon

Human Resources Office

Josephine County Courthouse
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POSITION DESCRIPTION

Job Title: Engineering Technician IV
Department: Public Works
FLSA Status: Exempt
Job Code: 03
WC Code: 9410
Effective Date:
Last Revised: July 1, 2018
Pay Grade: A18
Union: AFSCME

SUMMARY

Performs advanced surveying work including land and road surveys, research, design, testing and inspection of engineering projects; prepares legal surveys to be filed with the County Surveyor; does related work as required. Works in a lead position and problem-solves with employees on difficult applications or assignments. An employee in this classification is distinguished from the Engineering Technicians in that the incumbent is additionally responsible for the preparation of legal surveys to be filed with the County Surveyor. Day-to-day direction for work performed is under the general supervision of the County Engineer who reviews work for conformance to established policies, procedures and standards. Supervision is not a typical responsibility of this position, although the Engineering Technician IV may be responsible for assigning and reviewing the work of subordinate Engineering Technicians as required.

ESSENTIAL DUTIES AND RESPONSIBILITIES

(Illustrative Only. Any single position in this classification will not necessarily involve all of the listed duties below and other positions will involve duties which are not listed. These duties represent the essential functions needed of persons in this classification.)

1. Researches ownership, legal descriptions, departmental records, court records and other sources to assemble background data and information for survey, design, and cost estimation projects, particularly when situation is technically complex, procedurally difficult, or unusual in nature.
2. Prepares engineering drawings, plans and requirements for engineering projects; assembles survey information including maps, notes, descriptions, specifications and computations.
3. Prepares legal surveys to be filed with the County Surveyor.
4. Develops cost analyses and cost estimates for public works projects, including labor, materials, subcontracting and right of way costs.
5. Inspects construction projects under contract or being performed by County crews for adherence to plans and specifications.

6. Responds to inquiries/complaints from the public related to public works projects and facilities.
7. Oversees survey field work by outlining, assigning, and reviewing the work of the survey crew.
8. Teaching and training of engineering and surveying tech skills to lower level techs.

SUPERVISORY RESPONSIBILITIES

This position has no supervisory responsibilities; although may provide guidance and instruction to Engineering Technicians in lower classifications.

QUALIFICATIONS

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed are representative of the knowledge, skill, and/or ability required. Requires considerable knowledge of the principles and practices of civil engineering and construction for public works; algebra, trigonometry and geometry. Thorough knowledge of surveying principles, practices, and procedures. Ability to reduce field notes to maps and plans; read and interpret engineering plans, blue prints and specifications; conduct research and compile information; establish and maintain effective working relationships with employees, other county workers, contractors, landowners, and the public.

EDUCATION AND EXPERIENCE

Bachelor's degree in Engineering, Land Surveying or related field; and two years as an Engineering Tech or six years of progressively responsible technical engineering or land surveying experience; or any satisfactory combination of experience and training which demonstrates the knowledge, skills and ability to perform the above described duties.

JOB IMPACT

Problems encountered generally revolve around obtaining permission/access to private property to conduct land surveys; ensuring contractors are following plans and specifications; determining land ownership and accurate property lines. The consequences of error could include financial losses as a result of errors in design and/or inspection work performed; and embarrassment and possible litigation from improperly performed land surveys.

JOB CONTACTS

Contacts are with other County departments; other agencies; private engineers, surveyors, contractors, and developers; property owners, and the general public to provide and exchange information related to projects.

LANGUAGE SKILLS

Ability to read, analyze, and interpret general business periodicals, professional journals, technical procedures, or governmental regulations. Ability to write reports, business correspondence, and procedure manuals. Ability to effectively present information and respond to questions from groups of managers, clients, customers, and the general public.

MATHEMATICAL SKILLS

Ability to comprehend and apply principles of advanced calculus, modern algebra, and advanced statistical theory. Ability to work with concepts such as limits, rings, quadratic and differential equations, and proofs of theorems.

REASONING ABILITIES

Ability to apply principles of logical or scientific thinking to a wide range of intellectual and practical problems. Ability to deal with nonverbal symbolism (formulas, scientific equations, graphs, etc.) in its most difficult phases. Ability to deal with a variety of abstract and concrete variables.

OTHER SKILLS AND ABILITIES

The use of drafting, surveying, and engineering equipment; utilizing computer software.

CERTIFICATES, LICENSES, REGISTRATIONS

Registration as an Engineering Intern or Land Surveying Intern as recognized by the State of Oregon defined by ORS 672; or registered within six (6) months of employment; and possession of or ability to obtain a valid Oregon Driver's License; safe driving record.

BACKGROUND INVESTIGATION

Those employed in this position may be subject to pre-employment drug testing and a background investigation, including but not limited to criminal background investigation. Conviction of a crime will not necessarily disqualify an individual for this classification.

WORK ENVIRONMENT

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Work is performed both in the office and in the field. Field work involves working in adverse weather conditions. The noise level in the work environment is usually moderate. This position is impacted by urgent time lines to conduct work before construction crews are scheduled to begin and the need for extreme accuracy in performing land surveys

PHYSICAL DEMANDS

The physical 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 disabilities to perform the essential functions.

PHYSICAL REQUIREMENTS Engr Tech IV

Check if required for essential job function	Activity	Never 0%	Occasionally 1-33%	Frequently 34-66%	Continuous 67-100%
<input checked="" type="checkbox"/>	Standing	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Sitting - 1/2 hour plus	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Moving about work area	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Bending forward	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Stoop position - 1 minute plus	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Climbing stairs - 1 floor	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Crawling - hands & knees	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Reaching overhead	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Lifting strength	# of pounds: 50 lbs.			
<input checked="" type="checkbox"/>	Lifting	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Patient Lifting	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Lifting Overhead	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Moving carts, etc.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Carry items	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Dexterity/Coordination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Keyboard Operation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Rapid-mental/hand/eye coord.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Operation of motor vehicle	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Speech, Vision & Hearing					
<input checked="" type="checkbox"/>	Distinguish colors	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>			
<input checked="" type="checkbox"/>	Distinguish shades	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>			
<input checked="" type="checkbox"/>	Depth perception	Describe: Job sites/Surveying/Drawings/Plans			
<input checked="" type="checkbox"/>	Ability to hear	Normal Speech Level:			
<input type="checkbox"/>	Other Spec. Hearing Req.	Describe:			
Exposure - Environmental Factors					
<input checked="" type="checkbox"/>	Heat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Cold	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Humidity	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Wet Area/Slippery	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Noise	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Dust	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Smoke	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Vibration	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Chemical Solutions	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Uneven Area	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Ladder/Scaffold	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Ionization	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Radiation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Body Fluids	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>