



Josephine County, Oregon

Human Resources Office

Josephine County Courthouse
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POSITION DESCRIPTION

Job Title: Engineering Technician II
Department: Public Works
FLSA Status: Non-Exempt
Job Code: 3491
WC Code: 9410
Effective Date: January 1, 1991
Last Revised: July 30, 2010
Pay Grade: A13
Union: AFSCME

SUMMARY

Performs engineering work including land and road surveys, research, testing and inspection of engineering projects; does related work as required. An employee in this class researches and compiles information on the design of roads, bridges, storm drains and other engineering projects. The incumbent also oversees and participates in land and road survey work for Public Works construction projects. Work is performed under the general supervision of the Survey/Inspection Program Supervisor who reviews work for conformance to established policies and engineering standards. Although supervision is not normally a responsibility of positions in this classification, the Engineering Technician II is responsible for assigning and reviewing the work of Engineering Technicians (Level I) who perform surveying work in the field.

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. Gathers and compiles information for the design of roads, bridges, storm drains, sewage treatment systems, buildings, culverts and other public works projects.
2. Performs the construction layout and staking of various public works projects such as roads, bridges, culverts and parking lots.
3. Performs complex legal surveys of County-owned lands; prepares maps from survey field notes and files with County Surveyor's office.
4. Plots maps and charts showing profiles, cross sections and land divisions.
5. Oversees survey field work by outlining, assigning and reviewing the work of the survey crew.
6. Researches records and files of the Bureau of Land Management, County Surveyor's Office and County Tax Assessor's Office for information pertaining to land and road surveys.

7. Inspects construction projects under contract or being performed by County crews for adherence to plans and specifications.

SUPERVISORY RESPONSIBILITIES

Provides oversight 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. Considerable knowledge of the principles and practices of civil engineering and construction for public works; surveying principles, practices and procedures; algebra, trigonometry and geometry. Ability to organize, assign and review the work of subordinate employees and survey crews; reduce field notes to maps and plans; read and interpret engineering plans, blueprints and specifications; conduct research and compile information; establish and maintain effective working relationships with employees, contractors, landowners and the public.

EDUCATION AND EXPERIENCE

Associates Degree in Engineering Technology, Land Surveying or related field; and two years 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; and determining land ownership and accurate property lines. The consequence of errors in judgment could have an adverse impact on the structural or operational integrity of physical facilities under the county's jurisdiction, jeopardizing the safety, health, and welfare of the public. Additionally, errors could result in financial loss and/or exposure to legal liability due to property damage or personal injury, facility design error, errors in construction staking of roads and drainage systems as related to elevations, and errors in land surveys.

JOB CONTACTS

Contacts are with County Planning, other County and City agencies, private engineers, surveyors, contractors, developers and the general public to coordinate projects and answer questions.

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

Perform complex mathematical and engineering computations.

REASONING ABILITIES

Ability to define problems, collect data, establish facts, and draw valid conclusions. Ability to interpret an extensive variety of technical instructions in mathematical or diagram form and deal with several abstract and concrete variables.

OTHER SKILLS AND ABILITIES

Use of drafting, surveying, and engineering equipment; utilizing associated computer software.

CERTIFICATES, LICENSES, REGISTRATIONS

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 a background investigation including criminal background investigation. Conviction of a crime will not necessarily disqualify an individual for this classification.

WORK ENVIRONMENT

Work is performed both in the office and in the field. Field work involves working in adverse weather conditions; exposure to heavy traffic in conducting road surveys; traversing steep terrain and carrying heavy survey equipment.

The 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 REQUIREMENTS

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. Good physical condition to work outdoors on rough terrain is required.

PHYSICAL REQUIREMENTS Engr Tech II

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 = 50lbs			
<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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Operation of motor vehicle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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: Maps/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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Cold	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Humidity	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Dust	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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"/>