



Josephine County, Oregon

Human Resources Office

Josephine County Courthouse
500 NW 6th Street Dept 11 / Grants Pass OR 97526
(541) 474-5217 / FAX (541) 474-5218 / TTY (800) 735-2900

POSITION DESCRIPTION

Job Title: Civil Engineer
Department: Public Works
FLSA Status: Exempt
Job Code: 3450
WC Code: 9410
Effective Date: August 1, 2010
Last Revised:
Pay Grade: NU16
Union: Non-Union (Supervisory)

SUMMARY

Performs professional civil engineering tasks in the planning, design, construction and maintenance of Public Works projects. An employee in this classification is responsible for engineering design and development of projects; preparation of contract specifications; contract administration and research investigations. This employee, as a professional engineer, is able to approve changes to engineering plans and/or contract specifications. Work is performed under the general supervision of the County Engineer who reviews work for compliance with the principles and practices of civil engineering and with applicable laws, rules and regulations, as well as for results attained. Supervision is provided to advanced level engineering staff.

ESSENTIAL DUTIES AND RESPONSIBILITIES

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

1. Performs engineering design and development of roads, storm sewers, sanitary landfills and other types of public works facilities.
2. Administers contracts for Public Works projects which consist of preparing pay estimates and miscellaneous contract related letters; attends and/or conducts pre-construction meetings with contractor and other interested parties to answer questions regarding design and contract specifications.
3. Reviews Public Works project construction plans and specifications submitted by outside engineers and/or surveyors for compliance with County standards and engineering practices.
4. Prepares and stamps contract specifications for bidding of Public Works facility improvements and (re)construction projects.
5. Performs and stamps storm drainage and run-off studies for various size drainage basins for bridge and culvert designs.
6. Interprets design requirements to establish conditions for private engineers, land surveyors and developers during land development process.

7. Conducts storm drainage calculations and run-off studies for various size drainage basins for bridge and culvert designs.
8. Supervises subordinate employees including assigning and reviewing work, evaluating performance, training, taking necessary disciplinary action and recommending on hiring and termination decisions.
9. Acts in the capacity of County Engineer during extended absences of County Engineer.

SUPERVISORY RESPONSIBILITIES

Provides supervision to advanced level engineering staff. Provides general direction to other applicable staff in relation to engineering projects.

QUALIFICATIONS

Advanced knowledge of the principles and practices of civil engineering; the laws, rules, regulations, codes and ordinances applied to the design and construction of public works facilities. Ability to perform complex mathematical and engineering computations; prepare engineering plans and specifications; assign and review the work of others; communicate effectively both verbally and in writing. Incumbents are required to make public presentations of technical and complex information; interpret and apply laws, codes and ordinances; establish and maintain effective working relationships with County and city departments, outside engineers, surveyors, contractors and the general public.

EDUCATION AND EXPERIENCE

Bachelor's degree in Engineering and four years progressively responsible experience in Engineering; or any satisfactory combination of experience and training which demonstrates the knowledge, skills and ability to perform the above described duties.

JOB IMPACT

Consequence of error could result in financial loss and exposure to lawsuit from property damage or personal injury due to design error. Problems encountered generally revolve around applying engineering practices and principles, laws, policies and standards in the design and development of various Public Works projects.

JOB CONTACTS

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

LANGUAGE SKILLS

Ability to read, analyze, and interpret common scientific and technical journals, financial reports, and legal documents. Ability to respond to common inquiries or complaints from customers, regulatory agencies, or members of the business community. Ability to write speeches and articles for publication that conform to prescribed style and format. Ability to effectively present information to top management, public groups, and/or boards of directors.

MATHEMATICAL SKILLS

Ability to apply advanced mathematical concepts such as exponents, logarithms, quadratic equations, and permutations. Ability to apply mathematical operations to such tasks as frequency distribution, determination of test reliability and validity, analysis of variance, correlation techniques, sampling theory, and factor analysis.

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, musical notes, etc.) in its most difficult phases. Ability to deal with a variety of abstract and concrete variables.

OTHER SKILLS AND ABILITIES

Advanced level expertise in the use of computer drafting and design software. Specifically: AutoCAD, GPS equipment, AutoTURN and IRIS (Integrated Road Inventory System).

CERTIFICATES, LICENSES, REGISTRATIONS

This position requires possession of an Oregon Professional Engineers License.

BACKGROUND INVESTIGATION

May be subject to a background investigation, including criminal background investigation; conviction of a crime will not necessarily disqualify an individual for this classification. Possession of or ability to obtain a valid Oregon Driver's License; safe driving record.

WORK ENVIRONMENT

Work is performed primarily in an office environment and occasionally in the field when reviewing project construction. The position is impacted by heavy or uncontrollable work flow; the need for extreme accuracy or precision; the need for attention to fine detail; and the need to constantly shift attention before tasks are complete.

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.

While performing the duties of this job, the employee is regularly required to sit; use hands to finger, handle, or feel; reach with hands and arms; and talk and hear. The employee frequently is required to stand, sit, and walk for long periods of time. The employee is occasionally required to climb or balance; stoop, kneel, crouch, or crawl; and taste or smell. At times a person in this position will be exposed to extreme weather conditions. The employee must occasionally lift and/or move up to 50 pounds. Specific vision abilities required by this job include close vision, distance vision, and peripheral vision.

PHYSICAL REQUIREMENTS

| 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 checked="" 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 checked="" 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 checked="" type="checkbox"/> | <input 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"/> |