

City of Oregon City		Position Description
Position: Senior Project Engineer		AFSCME Union
Department/Site: Public Works		FLSA: Non-Exempt
Evaluated by: City Engineer		Salary Grade: 46

## **Summary**

Coordinates, participates in, and performs complex engineering projects and studies, serving as a project leader. Researches, plans, and designs civil, underground utility, and transportation engineering studies for construction and maintenance. Coordinates the work of other staff, outside consultants and contractors, and other agencies.

## **Distinguishing Career Features**

The Senior Project Engineer is part of a two-tiered career path for engineering professionals. Project Engineer refers to the first level, which is the starting point for new graduate engineers and requires a bachelor's degree in an engineering discipline and active status as an Engineer-In-Training. Advancement to Senior Project Engineer is possible with attainment of Professional Engineer status and registration, the demonstrated ability to review and approve development and capital improvement plans, and lead projects. The Senior Project Engineer is also expected to perform the most complex engineering assignments involving multiple disciplines.

## **Essential Duties and Responsibilities**

- Serves as a senior engineering professional, overseeing and participating with other engineers of multiple specialties, technical staff, and consultants in developing, implementing, and evaluating engineering plans, work processes, systems, and procedures.
- Designs and provides guidance to other staff or consultants in the design and implementation of a variety of public works construction and upgrades in modalities such as, but not limited to, streets and transportation system infrastructure, structures, and public utility facilities.
- Prepares feasibility and cost estimates. Develops and or reviews engineering specifications to comply with City standards. Develops project schedules and work sequences and sets up and performs progress and quality reviews.
- Develop short- and long-range strategic plans for facility and infrastructure maintenance and development; oversee studies supporting long-range planning of public facilities improvements and expansion of public works services in the city.
- Identify needs for consultant or outside technical services on projects; approve selection and negotiate contracts with engineering consultants for studies, facility design, and inspection; prepare, negotiate, recommend, and administer contracts and inter-local agreements with other municipalities and private companies.
- Coordinates and obtains permits from other agencies that demonstrate compliance with federal, state and local laws, codes, and regulations.

- Monitors work in progress. Reviews and recommends approval of change orders.
- Negotiates and administers right-of-way and easement agreements and condemnation procedures.
- Conducts senior level review of engineering plans for commercial, industrial, and residential structures proposed through the permit process. (Capital Projects and/or Private Development Projects.)
- Participates with the Department Director and the City Engineer and others in developing and implementing engineering standards and priorities for the City. Interprets and applies standards in designs and review of consultant work.
- Performs project planning and design, developing and administering project terms and conditions, evaluating contract compliance and compliance with technical policies.
- Preparation and administration of RFPs and hiring of consultants and contractors.
- Conducts engineering studies and provides technical expertise to evaluate the feasibility of proposed or ongoing projects or methods, and to determine solutions to existing field problems; assembles and evaluates technical data; provides technical guidance or proposes solutions to an interdisciplinary design or research group.
- Analyzes and prepares reports on effects to the community and environment caused by proposed annexations, zone changes, new construction, traffic, and other transportation services. Analyzes impact on water and sanitary collections systems.
- May review plans, structural calculations, and specifications prepared by other engineers and technicians for compliance with City standards, codes, and accepted engineering practices. May sign plans as Engineer of Record.
- Coordinates engineering inspections to review compliance with approved designs and plans for commercial buildings, residences, and other structures. Verifies compliance with accepted engineering practices and the provisions of City building codes and other pertinent laws and regulations.
- Prepares and makes presentations to Planning and City Commissions, other agencies, and community groups as appropriate.
- Meet with the public, elected officials, neighborhoods, special interest groups, and other stakeholders to discuss project elements, review property impacts, and resolve project concerns.
- Creates, assembles, and maintains complete files of capital improvement and other multi-disciplinary projects from conceptual format to completed works.
- Coordinates, prepares, and submits grant applications. Ensures compliance with grant provisions, stipulations, and reporting requirements. Serves as liaison to granting agency.
- Performs other duties as assigned that support the overall objective of the position.

## **Qualifications**

### **▪ Knowledge and Skills**

The position requires professional specialization in engineering theory, principles, practices, materials, costs, construction techniques and trends, regulations, standards, and equipment. Requires working knowledge of engineering contract administration. Requires working knowledge of and skill in designing projects that involve sequencing of steps and inclusion of multi-disciplinary teams. Requires in-depth knowledge of computer-aided-design and computer-aided-engineering programs. Requires knowledge of right-of-way and condemnation procedures. Requires sufficient human relations skills to convey technical engineering concepts; to facilitate, lead, and guide other professional, trades, and technical employees; and to work cooperatively with internal and external customers. Requires technical writing skills sufficient to prepare project specifications, requests for proposal, process documentation, and communications suitable for external distribution. Requires advanced mathematics skills to conduct stress, load bearing, and financial computations.

### **▪ Abilities**

Requires the ability to perform all the responsibilities of the position. Requires the ability to plan, organize, coordinate, and review progress and compliance of engineering and development projects. Requires the ability to prepare, administer, and monitor a project budget and anticipate future budgetary needs. Requires the ability to interpret and apply complex rules, regulations, laws, and ordinances. Requires the ability to prepare, review, approve, and interpret engineering plans and specifications. Requires the ability to analyze technical design engineering, construction engineering, and surveying problems. Requires the ability to read design and construction-related drawings. Requires the ability to use Microsoft Word, Excel, Outlook, Project, PowerPoint, and Adobe, or equivalent software. Requires the ability to conduct mathematical computations using physics, algebra, analytic geometry, and statistical analysis. Requires the ability to organize and sequence work associated with complex projects, converting them into project action plans. Requires the ability to work cooperatively with senior citizens and customers of all ages. Requires the ability to work as a contributing member of a team, work productively and cooperatively with other teams and external customers, and convey a positive image of the City and its services.

### **▪ Physical Abilities**

The incumbent performs work of a sedentary to moderately active nature. Requires sufficient ambulatory ability to walk to project locations, to stand for extended periods of time, and to bend and stoop for limited periods of time. Requires sufficient arm-hand-eye coordination to operate a computer keyboard and pointing devices at a proficient level. Requires visual acuity to create and read three-dimensional and detailed drawings and observe structural work in progress. Requires verbal and auditory ability sufficient to carry on conversations with others and make presentations to groups.

### **▪ Education and Experience**

The position requires a bachelor's degree with a major in civil, structural, or a closely related engineering discipline and five years of progressively responsible professional engineering experience with emphasis on projects. Any combination of experience and training which ensures the ability to perform the work may be considered as substitution for the above.

### **▪ Licenses and Certificates**

Requires a valid driver's license. Requires active registration as a Professional Engineer, and an Oregon Professional Engineer Certificate within 6 months of employment.

- **Working Conditions**

Work is performed indoors and outdoors where minimal safety considerations exist.
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*This job/class description describes the general nature of the work performed, representative duties, as well as the typical qualifications needed for acceptable performance. It is not intended to be a complete list of all responsibilities, duties, work steps, and skills required of the job.*