

## JOB DESCRIPTION

**TITLE:** Structural Engineer

**REPORTS TO:** Vice President of Architecture and Engineering

**Summary:**

Working as part of a design and construction team, designs structural components of buildings.

**Essential Functions:**

- Reads and interprets blueprints, technical drawings, schematics, and computer-generated reports. Performs structural design and analysis calculations using governing codes and standards, mathematical engineering formulas, skills, and experience.
- Develops conceptual layouts.
- Details portions of projects using schematic layout. Develops drawings and produces sketches to incorporate in construction plans and specifications produced by architects. Organizes, drafts, and coordinates technical documents.
- Researches design options and provides opinions on feasibility and economy of each.
- Reviews shop drawings.
- Assists in development of construction cost estimates or provides quantities and data sufficient for others to develop cost estimates.
- Coordinates work with other disciplines such as architectural, mechanical, electrical, etc.
- Uses computer-assisted engineering and design software and equipment to prepare engineering design documents.
- Attends and participates in meeting with clients. Participates in presenting ideas and proposals.
- Performs field activities such as investigating and recording existing field conditions, taking and verifying measurements within project area and quality control assessments.
- Other duties as assigned.

**Peripheral Functions:**

- May select, manage and work with subcontractors.
- On specific projects types may act as the design team lead and will coordinate all facets of the design tasks including drawing and engineering oversight, permitting, and client interface.

**Skills, Knowledge and Abilities:**

- In-depth scientific and professional knowledge of principles, techniques, and procedures necessary to design structures which will be physically able to withstand specific pressures and forces.
- Knowledge of laws, regulations, rules, best practices, statutes, and codes pertaining to construction of new and renovation of existing structures.
- Ability to solve engineering problems and to design structural systems using creative and innovative thought processes.
- Ability to apply mathematical, scientific and technological tools used in the engineering field.
- Ability to analyze and interpret data and maintain a sound theoretical approach to problem solving.
- Ability to apply professional judgment, balancing issues of costs, benefits, safety, quality and risks.
- Competence in the use of a wide range of tools, techniques, and equipment (including software) appropriate to structural engineering.

- Ability to both read and prepare technical plans, drawings and bid documents.
- Demonstrated competence in Revit and Revit Structures. Knowledge and proficiency with Autocad.
- Excellent verbal and written communication skills with an emphasis on customer service skills.
- Ability to negotiate and mediate issues with a variety of personalities representing a diverse group of individuals and businesses.
- Ability to exercise tact, diplomacy and discretion in business dealings and with staff.
- Ability to work as a member of a comprehensive design and construction team to achieve organizational goals as well as complete client satisfaction.
- Exceptional problem-solving and decision-making abilities.
- Ability to maintain a good attendance record. Ability to work long hours during some phases of projects.
- Demonstrated competence in MS Office, including Word, Excel, Outlook, Projects and Access.
- Ability to travel to distant construction sites, which may include overnight or several day stays.
- Valid Driver's License and good driving record.

**Education and Experience:**

- Bachelor of Science degree in Civil Engineering, and at least five years of experience with advanced knowledge in civil and/or structural engineering, obtainable usually through a combination of experience and continuing education.
- Licensed Structural Engineer in the State of Washington

**Physical Requirements:**

- Sitting is required for the majority of the day, although sitting and standing may be varied as necessary for comfort. Fine finger dexterity is required for use of a keyboard and other office machines.
- Visiting construction sites occurs frequently and requires exposure to inclement weather and walking on uneven, rough terrain. May require climbing stairs, planks or ladders to access parts of job site.
- Minimal lifting requirement of 20 pounds or less on an infrequent basis.

**Working Conditions:**

Work is performed in an office environment, as well as at construction sites located both locally and at out-of-state or out-of-country locations. Requires travel, including overnight trips or prolonged stays at facilities under construction.

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*The statements contained herein reflect general details as necessary to describe the principal functions of this job, the level of knowledge and skill typically required and the scope of responsibility, but should not be considered an all-inclusive listing of work requirements. Individuals may perform other duties as assigned including work in other functional areas to cover absences or relief, to equalize peak workload periods or otherwise to balance the workload.*

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