

CLASS TITLE: SENIOR SPECIAL PROJECTS ENGINEER

PURPOSE OF THE CLASSIFICATION: Under general direction provides special technical assistance to Senior/Lead Engineers, managers and department heads on complex engineering and construction problems, researches and develops new materials, standards and specifications, training technical personnel regarding new construction methods and materials; and performs other related required duties.

ESSENTIAL TASKS:

- Researches and coordinates the development and testing of new designs, techniques and materials through a long term research program
- Researches complex engineering problems, new designs, techniques and materials, analyzing and evaluating results and determining materials and methods to implement solutions
- Identifies design, construction and quality control efforts to meet or exceed construction standards for new materials and methods projecting cost comparisons with alternate options
- Develops specifications for new designs, materials and methods
- Develops and provides training, guidance and assistance to technical and construction personnel regarding new construction methods and materials, emphasizing safety and environmental standards compliance
- Maintains liaison with department director and other individuals involved in special projects and units within and outside the City
- Keeps abreast of new scientific methods and developments relating to engineering which affects the City
- Maintains on-going communication with technical personnel throughout the development and maintenance life of projects
- Prepares engineering analysis reports on researched materials and methods and complex engineering problems
- Develops and makes presentation of new designs, techniques and material proposals

Reasonable accommodations may be made to enable individuals with disabilities to perform the essential tasks.

QUALIFICATIONS:

Training and Experience: Graduation from an accredited college or university with a bachelor's degree in civil, electrical, mechanical, or chemical engineering and minimum of twelve (12) years of experience in design, project management and analysis, and developing solutions to complex engineering problems.

Knowledge, Abilities and Skills: Comprehensive knowledge of the principles and practices of engineering and design as related to municipal public works projects; comprehensive knowledge of the methods, materials and tools used for street, sewer, water and other public works construction; comprehensive knowledge of the methods, practices and procedures involved in a long term research program; and comprehensive knowledge of applicable safety and environmental regulations. Ability to develop and effectively conduct a comprehensive training program; ability to independently conduct research on complex engineering problems; ability to provide technical assistance to other engineers; ability to prepare and present reports of technical and advanced engineering information; ability to make complex engineering calculations quickly and accurately; and the ability to understand and influence the behavior of others within the organization, customers or the public in order to achieve job objectives and cause action or understanding. Applicant must possess skill in the use of testing, monitoring and recording equipment.

Physical Requirements: Physical requirements include arm and hand steadiness and finger dexterity enough to use a keyboard and telephone; may be subject to walking, standing, sitting, reaching, balancing, bending, kneeling, crawling, handling, feeling, climbing, smelling, and twisting; and vision, speech, and hearing sufficient to perform the essential tasks.

Licenses and Certificates: Possession of a Professional Engineer's License for the State of Oklahoma and a valid Oklahoma Class "D" Operator's License.

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WORKING ENVIRONMENT: Working environment is primarily indoors in an office setting; and may require traveling to various locations for field research.

Class Code: 1123

EEO Code: E-03

Pay Code: EX-48

**Group: Engineering, Planning, and Technical
Series: Professional Engineering**

Effective Date: July 1, 2000