

SENIOR CIVIL ENGINEER

DEFINITION: Under general direction, performs advanced professional engineering duties of considerable difficulty and latitude; engineering problems are of significant depth and complexity and are resolved independently within prescribed procedures and guidelines; supervises assigned professional engineering staff; positions at this level are authoritative in their respective engineering specialty; performs related work as assigned

ESSENTIAL FUNCTIONS: This list is ILLUSTRATIVE ONLY and is not a comprehensive listing of all functions and tasks performed by incumbents of this class.

TASKS:

Independently addresses and reconciles a broad range of complex engineering problems which may or cannot be adequately assessed and determined from measurement or observation alone; deals extensively with controversial economic and public policy issues which are likely to hinder progress of construction projects; applies seasoned judgment where a variety of conflicting engineering related conditions present a major problem; represents department with authority on technical engineering matters; applies professional registration seal to plans and specification prepared.

Develops procedures and standards for multiple engineering projects that are significantly technical and complex; coordinates and schedules multiple construction projects that are fairly large; provides technical expert testimony on engineering projects; provides opinion and advice on circumstantial issues; serves as technical advisor on federal and state regulations; coordinates work efforts with other organizations and/or programs to ensure compatibility of engineering approach and for optimum results.

Prepares reports and recommendations that may serve as a basis for project approval and funding; develops preliminary cost designs and cost estimates; makes special studies; examines, measures, studies, analyzes, and provides expert testimony on such elements associated with mineral and water rights, transportation and utility systems, residential and commercial use of land and water, environmental and reclamation related issues.

KNOWLEDGE, SKILLS AND OTHER CHARACTERISTICS:

Extensive knowledge of the principles, practices and techniques applied in civil engineering to significantly address and reconcile complex problems that are of a non-conventional nature.

Knowledge in developing engineering plans, scope of work, and design specifications for mid size complex and/or multiple projects.

Knowledge of methods applied in coordinating, managing, scheduling and controlling multiple projects.

Knowledge of Navajo Nation, federal and state regulations governing civil engineering.

Knowledge and understanding of federal and state agency roles and jurisdiction as they relate to the control and management of engineering projects on lands owned by the Navajo Nation.

Knowledge and understanding of economics as related to planning, designing and construction practices.

Knowledge of the application of engineering research and study methods.

Knowledge of department's mission, goals and objectives.

Knowledge of computer hardware, software and peripherals.

Skill in establishing and maintaining effective working relationships.

Skill in recognizing and evaluating important engineering facts and problems.

Ability to resolve problems through mathematical formulas and calculations.

Ability to communicate effectively, both orally and in writing.

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PHYSICAL REQUIREMENTS AND WORK ENVIRONMENT: Work requires attention to detail with potential exposure to loud noises, dust, toxic chemicals and fumes when working on site.

MINIMUM QUALIFICATION: A Bachelor's degree in Civil Engineering or a related engineering field; and eight (8) years of civil engineering experience, four (4) years of which must have been beyond possession of registration as a Professional Engineer (PE); OR a Master's degree in Civil Engineering or a related engineering field; and seven (7) years of civil engineering experience, four (4) years of which must have been beyond possession of registration as a Professional Engineer (PE).

SPECIAL REQUIREMENTS: Must possess registration as a Professional Engineer (PE) in the state of Arizona, New Mexico or Utah, a valid state driver's license and a Navajo Nation Vehicle Operator's Permit.

Depending upon the needs of the Nation, some incumbents of the class may be required to demonstrate fluency in both the Navajo and English languages as a condition of employment.