

ATLANTIC COUNTY GOVERNMENT

JOB ANNOUNCEMENT

PLEASE POST

TITLE: Senior Engineer, Bridges

SALARY: \$53,200 - \$74,000

Hours: 40 35

DEPARTMENT: Department of Planning & Engineering

Union: Mgmt

LOCATION: Northfield

NJCSC Test Required: Yes No

Grant Funded: Yes No

DEFINITION:

Under general supervision, performs engineering work involved in devising detailed designs and estimates of the costs of highway bridges and related structures; does related work as required.

DISTINGUISHING CHARACTERISTICS:

Work in the bridge engineering series primarily involves professional engineering tasks in preparing plans and designs of bridge repairs and/or replacements utilizing steel, concrete, timber and other structural materials used for bridges and other structures. May also perform engineering work related to appurtenant improvements such as approach roadways and traffic control related to bridge repair/replacement projects.

Positions at the senior level require specialized knowledge, skills and experience, and incumbents often must exercise independent judgment in selecting, evaluating and applying current design standards, literature, practices and precedents. Work assignments are performed under the general supervision of a higher-level engineer and may be reviewed in progress and/or upon completion for technical adequacy, completeness, overall quality and attainment of objectives. Incumbents may carry out portions of large-scale projects assigned to a higher-level engineer or complete small-scale projects on their own. Incumbents may review the work of subordinates assigned to the same project.

NOTE: The examples of work for this title are for illustrative purposes only. A particular position using this title may not perform all duties listed in this job specification. Conversely, all duties performed on the job may not be listed.

EXAMPLES OF WORK:

Prepares or assists in the preparation of complex contract drawings, construction plans, utility plans, right of way drawings, specifications, cost estimates, and preliminary estimates for bridges and other structures based on instructions issued by the supervisor.

Prepares as built plans and final estimates on completion of contracts.

Makes structural design calculations for bridges and related structures.

Checks contract drawings as required.

Computes the quantities of contract items needed for specific bridge construction work.

Checks shop drawings and contractors working drawings.

Performs field inspections of existing bridges and other structures to determine needed repairs and to formulate repair schemes.

Analyzes and interprets plans and specifications.

As directed conducts the inspection of the equipment, methods, procedures, supplies, and materials used by the contractor, to ensure compliance with design plans and specifications.

Performs complex engineering mathematical computations involved in the design of bridge components.

May perform design of other appurtenant improvements such as roadway approaches, guiderail, guiderail end treatments and traffic control plans in regard to bridge repair/replacement.

Maintains extensive records and reports pertaining to the operations of all assigned projects.

May act as project lead in field and/or office bridge engineering work, and provide guidance and assistance to subordinates in the performance of their work.

Prepares details for engineering and other reports containing findings, conclusions, and other recommendations.

Maintains essential records and files.

Will be required to learn to utilize various types of electronic and/or manual recording and computerized information system used by the agency, office, or related units.

REQUIREMENTS:

EDUCATION:

Graduation from an accredited college or university with a Bachelor's degree in Civil Engineering.

NOTE: Applicants who do not meet the above education requirement may substitute possession of a Professional Engineer's License issued by the New Jersey Board of Professional Engineers and Land Surveyors.

EXPERIENCE:

Two (2) years of engineering experience in bridge and structural design work.

NOTE: Graduation from an accredited college or university with a Master's degree in Civil Engineering may be substituted for one (1) year of indicated experience.

LICENSE:

Appointees will be required to possess a driver's license valid in New Jersey only if the operation of a vehicle, rather than employee mobility, is necessary to perform essential duties of the position.

KNOWLEDGE AND ABILITIES:

Knowledge of bridge and structural engineering design work and engineering design standards.

Knowledge of the techniques involved in preparing contract drawings of bridge and other structures using computations and sketches, including layout and detail.

Knowledge of the making sketches of proposed designs and complete preparation of detailed contract drawings.

Knowledge of the procedures and techniques used in computing the quantities of contract items needed for the construction of bridges and other structures and in checking contract, shop and contractor's working drawings.

Ability to carry out basic structural design assignments.

Ability to devise solutions for complex engineering and design problems.

Ability to analyze the problems involved in preparing contract drawings of entire bridge and other structures from basic computations and sketches.

Ability to prepare complete drawings and to check contract, shop and contractors working drawings.

Ability to interpret plans and specifications.

Ability to make the required mathematical calculations.

Ability to inspect existing bridges and structures and to make detailed field measurements and descriptions of existing conditions for use in performing detailed engineering analysis or for determining maintenance and designing needed repairs.

Ability to inspect construction projects for the purpose of determining conformance with designs, plans, and specifications.

Ability to work cooperatively with associates, superior officers, contractors, outside engineers, and others.

Ability to incorporate construction details in highway bridges and other structural work.

Ability to prepare cost and quantity estimates of bridge and other structural construction projects.

Ability to prepare engineering and other technical reports on bridge and other structural construction matters containing findings, analyses, conclusions, and recommendations.

Ability to maintain essential records and files.

Ability to utilize various types of electronic and/or manual recording and information systems used by the agency, office, or related units.

Ability to read, write, speak, understand, and communicate in English sufficiently to perform the duties of this position. American Sign Language or Braille may also be considered as acceptable forms of communication.

Persons with mental or physical disabilities are eligible as long as they can perform the essential functions of the job with or without reasonable accommodation. If the accommodation cannot be made because it would cause the employer undue hardship, such persons may not be eligible.

Interested, qualified applicants should apply online at <http://www.atlantic-county.org/>

**Alternatively, applications may be mailed to the
Atlantic County Division of Human Resources
1333 Atlantic Avenue, Atlantic City, NJ 08401**

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