

## JUNIOR ENGINEER (ELECTRICAL)

DISTINGUISHING FEATURES OF THE CLASS: Under supervision, incumbents perform entry-level electrical engineering and complex technical work. Incumbents conduct inspections, prepare simple designs, calculate data, prepare cost estimates, project updates and daily work records. Incumbents may be assigned regularly to any type of electrical engineering work, i.e. buildings, roads, parks, sewers, structures, etc., for regular assignment or training. The incumbent may work independently on less complex and routine projects and under direct supervision on more difficult tasks. As the incumbents skill and knowledge increases, less direction is received. Each level engineer, in this title series, takes part in the production of details, plans, specifications, etc. The difference between the Junior Engineer and Assistant Engineer is in the length of experience, judgment and independent action required. Advancement depends on the attainment of higher level skills and on the regular assignment to jobs requiring those skills. Supervision is not a responsibility; however guidance and direction may be given to a small number of non-professional employees. Does related work as required.

### EXAMPLES OF WORK: (Illustrative Only)

Assists in the preparation of computations and drawings for contract plans and reviews the designs from consultants or contractors to determine the adequacy of electrical schemes;

Assists in the oversight and inspection of the installation of electrical work for conformance with plans and specifications;

Assists in the preparation of progress reports and estimates for payments to contractors;

Drafts and lays out wiring diagrams and contract plans as assigned.

Uses computer applications or other automated systems such as CAD, spreadsheets, word processing, calendar, e-mail and data software in performing work assignments;

May perform other incidental tasks, as needed.

REQUIRED KNOWLEDGE, SKILLS, ABILITIES AND ATTRIBUTES: Good knowledge of the principles and practices of electrical engineering; knowledge of the practice of specification writing; good knowledge of computer assisted design, CAD; familiarity with design and analysis of electrical layouts; ability to prepare and interpret specifications and contract estimates; ability to perform mathematical computations applied to engineering problems; ability to lay out the work of sub-professional engineers; ability to effectively use computer applications such as CAD, spreadsheets, word processing, e-mail, and database software; ability to read, write, speak, understand and communicate in English sufficiently to perform the essential tasks of the position; ability to get along well with others and to deal effectively with contractors; accuracy; reliability; resourcefulness; sound professional judgment; physical condition commensurate with the demands of the position.

MINIMUM ACCEPTABLE TRAINING AND EXPERIENCE: Bachelor's Degree\* in Electrical Engineering or a substantially related field.

\*SPECIAL NOTE: Education beyond the secondary must be from an institution recognized or accredited by the Board of Regents of the New York State Education Department as a post-secondary, degree-granting institution.

NOTE: Unless otherwise noted, only experience gained after attaining the minimum education level indicated in the minimum qualifications will be considered in evaluating experience.

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J. C.: Competitive  
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Job Group: IX