

## JUNIOR CIVIL ENGINEER

DISTINGUISHING FEATURES OF THE CLASS: Under the general supervision of a higher level technical employee, an incumbent of this class performs general civil engineering work, carrying out complex technical details, making inspections and preparing simple designs. This is the entry level title in the professional engineering series. Supervision may be exercised over technical and/or clerical staff. Does related work as required.

### EXAMPLES OF WORK: (Illustrative Only)

Supervises and inspects minor construction and maintenance work on highways, sewers, water mains, storm drains, sidewalks, or other public works projects;

Prepares designs for simple engineering projects;

Inspects construction materials to see that they conform to specifications;

Acts as chief of a survey party;

Makes measurements and obtains design data;

Obtains data for computation of quantities;

Makes surveys for determining payments to contractors;

Prepares progress reports;

Serves as site inspector on contracted and sub-contracted work;

Computes and checks estimates;

Assists in the preparation of contract documents, specifications and plans for bidding in public works projects;

Does routine drafting and tracing of sewers, water mains, storm drains and highways or similar public works projects;

May supervise the work of technical and/or clerical assistants;

Uses computer applications or other automated systems such as computer assisted design programs (CAD), spreadsheets, word processing, calendar, e-mail and database software in performing work assignments.

REQUIRED KNOWLEDGE, SKILLS, ABILITIES AND ATTRIBUTES: Good knowledge of surveying; good knowledge of the application of principles, techniques, procedures, and practices of civil engineering; good knowledge of the methods and equipment used in construction; knowledge of design techniques, tools, and principles involved in production of precision technical plans, blueprints, drawings, and models; knowledge of materials, methods, and the tools involved in the construction or repair of houses, buildings, or other structures; ability to perform designing and drafting assignments; ability to interpret specification and contract essentials; ability to do mathematical computations as applied to engineering problems; ability to effectively use computer applications such as computer assisted design programs, spreadsheets, word processing, e-mail and database software; ability to read, write, speak, understand and communicate in English sufficiently to perform the essential duties of the position; ability to get along well with others; accuracy; reliability; resourcefulness; good judgment; physical condition commensurate with the duties of the position.

MINIMUM ACCEPTABLE TRAINING AND EXPERIENCE: Either: (a) Bachelor's Degree\* in Civil Engineering, Construction Engineering or closely related field; or (b) a Bachelor's Degree\* in Civil Engineering Technology, Construction Engineering Technology or closely related field and one (1) year of work experience which must have involved construction, surveying, design, inspection or estimating.

\*SPECIAL NOTE: Education beyond the secondary level must have been awarded by a college or university accredited by a regional, national, or specialized agency recognized as an accrediting agency by the U.S. Department of Education/U.S. Secretary of Education.