

## ASSISTANT CIVIL ENGINEER

DISTINGUISHING FEATURES OF THE CLASS: This is beginning level professional engineering work requiring limited experience or practice, but demanding ability to apply principles of physics, mathematics, mechanics and materials to engineering problems. The work requires familiarity with construction and maintenance methods, materials, equipment and techniques used in the field of highways, bridges and solid waste. The incumbent may receive assignments in general terms as far as details are concerned, but the scope of each assignment is limited and methods of procedure are outlined by superiors. As proficiency increases, the complexity of assignments increases and the degree of supervision will decrease. Supervision may be exercised over subordinate engineering staff. Does related work as required.

TYPICAL WORK ACTIVITIES: (Illustrative Only) Makes field tests of materials; Operates total stations, transits, levels and other surveying instruments; Acts as chief of a survey party in topographic, or other engineering surveys; Makes necessary computations for field parties relative to tangent offsets and horizontal, vertical and banked curves; Inspects general construction projects for compliance with plans and specifications; Uses computer software to download surveys and develop terrain models for the production of topographical maps, detail plan, and cross sections and charts; Computes rough estimates on studies of proposed facilities; Computes estimates of quantities of materials and work progress for contractors' payments; Performs general engineering office work; Sets final grades and lines for construction of approved projects; Develops informational material including plans, specifications reports and cost estimates for use in completing applications for State and Federal funds for highway and safety programs; Uses database software to monitor bridge conditions, forecast bridge maintenance needs, and document maintenance and flag repair activities.

FULL PERFORMANCE, KNOWLEDGE, SKILLS, ABILITIES, AND PERSONAL CHARACTERISTICS: Good knowledge of basic principles and practices of engineering; good knowledge of construction, survey and inspection practices; Ability to use CADD software for the development of maps and construction drawings, database software for tracking and rating infrastructure resources, and surveying and other instruments of precision in professional engineering work; Ability to express engineering concepts and decisions in drawings; Ability to follow specific and detailed instructions; Accuracy; Initiative; Mental alertness; Physical condition commensurate with the demands of the position.

MINIMUM QUALIFICATIONS: EITHER:

- A. Graduation from a regionally accredited or New York State registered college or university with a Bachelor's Degree in civil engineering or related field; OR
- B. (1) Graduation from a regionally accredited or New York State registered college or technical institute with an Associate's Degree in engineering technology or related field, and (2) one year of engineering experience or two years of full-time paid experience assisting in civil engineering work which shall have included the operation of survey equipment, making engineering computations, or drafting; OR
- C. High school graduation and three years of engineering experience or six years full-time paid experience assisting in civil engineering work which shall have included the operation of survey equipment, making engineering computations, or drafting; OR
- D. An equivalent combination of training and experience as defined by the limits of (A), (B), and (C) above

SPECIAL REQUIREMENTS:

Possession of an appropriate level New York State driver' license at the time of appointment and maintained during employment.

Revised 8/25/89; 1/14/94; 7/6/09; 5/16/18

Reviewed 8/7/98, 5/23/02, 11/16/04; 3/13/12; 2/1/16