

Jurisdiction: City of Ithaca
Jurisdictional Class: Competitive
Adopted: 02/17/98
Revised: 04/01/09, 09/07/22

BRIDGE SYSTEMS ENGINEER

DISTINGUISHING FEATURES OF THE CLASS: This is a full performance professional engineering position with a specialized focus on bridge engineering. The incumbent develops, administers and oversees bridge construction and maintenance programs and contracts, and coordinates projects with local and State agencies. The Bridge Systems Engineer also complies with the requirements of Municipal, State and Federal Codes with respect to bridge design and maintenance, traffic control and engineering. The work is performed under general supervision and in accordance with established engineering principles, with considerable leeway allowed for the exercise of independent professional judgment. General supervision is exercised over the work of subordinate engineering staff, and on-site supervision is exercised over work crews. Does related work as required.

TYPICAL WORK ACTIVITIES:

Conducts surveys for topographic data, property lines, street improvements, etc.;

Collects field data on bridge structures;

Analyzes and interprets field study data and inspection reports;

Prepares and maintains a variety of records, reports and drawings;

Develops engineering design for vehicular, pedestrian and bicycle bridges, traffic control devices and signage;

Develops plans, specifications, cost estimates and contract documents for projects of moderate difficulty;

Participates in long term, large scale facility planning efforts in cooperation with other professional staff, Traffic Systems Engineer and State and Federal organizations;

Prepares technical reports and assists in preparation of major studies and reports;

Makes technical recommendations regarding postings, loadings, traffic signage, pedestrian and bicycle safety;

Administers construction contracts including preparation and review of budgets and pay requests, inspection of the work, and interpretation of the contract documents;

Coordinates project activities with the public, city officials, state and federal officials, other City departments, consultants, contractors and suppliers;

May participate in conducting departmental information programs;

May train and supervise other staff members.

FULL PERFORMANCE KNOWLEDGES, SKILLS, ABILITIES, PERSONAL CHARACTERISTICS:

Good knowledge of the principles and practices of civil engineering; good knowledge of bridge systems; good knowledge of the application of federal, state and local laws, regulations and ordinances pertaining to bridges; good knowledge of bridge design and construction methods; good knowledge of construction procedures including design, specification writing, inspections and surveys; ability to collect and analyze data; ability to prepare plans, specifications, and narrative and tabular reports; ability to coordinate engineering projects of moderate difficulty; ability to train and supervise subordinate staff; ability to establish and maintain cooperative working relationships with the public, contractors, vendors, co-workers and other staff; ability to communicate effectively; ability to successfully work with and serve a diverse local community; mechanical aptitude; initiative; good judgment; physical condition commensurate with the demands of the position.

MINIMUM QUALIFICATIONS:

- A. Possession of a Bachelor's degree in Civil Engineering, Engineering Science or a related field with similar curriculum and one year of full-time paid structural or civil engineering experience, or its part-time paid equivalent, performing construction layout, engineering design, specification writing, inspections or surveys; or
- B. Graduation from high school or possession of a high school equivalency diploma and seven (7) years of full-time paid structural or civil engineering experience, or its part-time paid equivalent, performing construction layout, engineering design, specification writing, inspections or surveys, at least one year of which must have included structural design; or
- C. An equivalent combination of training and experience as defined by the limits of (A) and (B).

Note: College degrees 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 and/or U.S. Secretary of Education. If an applicant's degree was awarded by an educational institution outside the United States and its territories, the applicant must provide independent verification of equivalency. A list of acceptable companies who provide this service can be found at <https://www.cs.ny.gov/jobseeker/degrees.cfm>. Applicants are responsible for payment of the required evaluation fee.