

# PRINCIPAL ENGINEERING AIDE

Department: Varies  
Classification: Competitive  
Specification Number: 4820  
Approved: 8/28/23  
Revised: By JG

## MINIMUM QUALIFICATIONS

### *OPEN COMPETITIVE*

Graduation from a standard senior high school or possession of a high school equivalency diploma and four (4) years of experience in civil engineering, construction management, materials testing or a related field..

**NOTE:** Additional education in Engineering, Architecture, Construction Management or a related field may be substituted for experience on a year-for-year basis.

### *PROMOTIONAL*

Two (2) years of permanent competitive status as a Senior Engineering Aide.

## NECESSARY SPECIAL REQUIREMENT

At the time of appointment, and during employment in this title, employees must possess a valid license to operate a motor vehicle in New York State.

## DISTINGUISHING FEATURES OF THE CLASS

Under general supervision, an employee in this title is responsible for the more difficult technical assignments on engineering and sanitary projects. Assignments may include operating electronic surveying equipment, supervision of field survey parties, making and checking engineering computations, inspecting construction work and materials, and calibrating and inspecting safety equipment. Assignments are given orally and in writing and are general allowing for the use of independent judgment. Supervision is frequently exercised over lower lever engineering personnel and clerical assistants. Work is subject to review in progress and upon completion by professional engineering personnel. Does related work as required.

## TYPICAL WORK ACTIVITIES

- Operates electronic measuring equipment to perform surveys;
- Serves as chief on topographic or land surveys;
- Supervises work, takes notes and makes sketches;
- Assumes responsibility for work progress and results;
- Makes and checks engineering drawings on construction projects;
- Assists in the preparation of plans, specifications and estimates for construction projects;
- Makes a variety of preliminary estimates for engineering or sanitary projects;
- Prepares detailed reports for professional engineering or sanitarian supervisors;
- Acts as resident inspector on minor construction projects or assumes responsibility for a portion of large construction projects;

## KNOWLEDGE, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS

Thorough knowledge of the principles, techniques and practices of land surveying; thorough knowledge of the principles, practices and instruments used in engineering drafting; thorough knowledge of state discharge regulations; good knowledge of mathematics through trigonometry and its application to field surveying and engineering computations; good knowledge of construction specifications and their applications to public works construction; good knowledge of the operation and use of safety equipment; working knowledge of civil engineering principles and practices; ability to input data and use a computer terminal; ability to perform difficult technical computations and to compile engineering data and statistics; ability to make moderately difficult engineering drawings; ability to supervise others in a manner conducive to full performance and high morale; physical condition commensurate with the demands of the position.