

Civil Engineer - Tompkins County Tompkins County

Classification: Competitive

Labor Grade: 14

Approved: Bd. Res. #79

Revised: 9/82; 3/86; 2/90; 5/91; 12/98; 12/03; 8/04; 3/06; 3/10; 12/10; 1/11; 2/14; 6/16

By: AF, Commissioner of Personnel

MINIMUM QUALIFICATIONS: No later than the final filing date posted, the candidate must meet the following:

(a) Graduation from a regionally accredited or New York State approved four-year college or university, with a Bachelor's Degree in Civil Engineering, **AND** at least two years of experience specifically in the area of road construction; **OR**

(b) Graduation from a regionally accredited or New York State approved two-year college, with an Associate's Degree in Engineering Technology, Engineering Science, or a related field **AND** at least five years of experience specifically in the area of road construction; **OR**

(c) Any combination of training and experience equal to or greater than that described in (a) or (b) above.

Tompkins County is Committed to Equity and Inclusion. We encourage those with similar values to apply.

SPECIAL REQUIREMENT:

The applicant must be eligible for a New York State motor vehicle operator's license at the time of application, possess such license at the time of appointment and maintain a valid driver's license for the duration of employment.

DISTINGUISHING FEATURES OF THE CLASS:

An employee in this position is responsible for managing the Road Reconstruction activities and functions of the Highway Department. Typical duties will be program planning, project scheduling, project design, field engineering and survey, insuring cost effective and efficient productivity of labor and equipment resources, quality control, report writing, and record keeping, enforcement of applicable County, State, and Federal rules and regulations (OSHA, PESH, MS4 Phase II Storm Water Runoff Regulations). The work involves exposure to all kinds of weather conditions. The work is performed under the general supervision of the Highway Manager, with a high degree of autonomy. The incumbent will perform all related duties as required.

TYPICAL WORK ACTIVITIES: (Illustrative Only)

- Develops master plans and gantt charts for program management;
- Monitors and manages the highway materials account to keep expenditures within budget;
- Develops project designs and specifications;
- Produces Work and Service Orders;
- Uses and maintains a sophisticated software package for pavement management;
- Attends job related training and seminars as determined by the Highway Manager;
- Performs field surveys and inspections;
- Visits Work Order and Service Order project sites before, during, and after the project to design and manage various phases of the project;
- Provides instruction for Senior Crew Supervisor and Contractors, in the activities and tasks to be performed and answers questions concerning work and service orders;
- Observes work in progress and insures the work is progressing according to schedule and in accordance with all quality control and safety standards;
- Inspects work to be sure work complies with plans, specifications, and best practices;
- Troubleshoots work site construction problems to implement any necessary field changes;
- Enforces and insures compliance with all work site safety policies, rules and regulations published by the County and outside agencies such as OSHA, DEC, PESH, etc.;
- Applies analytical skills to devise more efficient construction processes and insures the most efficient use of labor, materials, and equipment;
- Maintains written records of work performed and materials and labor used;

- Project cost estimating;
- Applies analytical skills to constantly improve efficiencies for record keeping and other office work; and
- Uses computer programs, such as (but not limited to) EXCEL, MS WORD, or CADD as tools for design, planning and record keeping.

KNOWLEDGE, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS:

- Good knowledge of methods, materials, tools and terminology used in the construction of bridges, roads, and adjacent areas;
- Good knowledge of geometric and structural road design methods and practices;
- Good working knowledge of NYSDOT Standard Specifications;
- Compendious knowledge of aggregates, asphalt emulsion products, cold mix asphalt concrete, and hot mix asphalt concrete;
- Good knowledge of safety precautions (including local safety and traffic standards) used in highway and bridge construction and maintenance;
- Ability to distinguish/recognize when construction materials appear to be out of specification;
- Ability to perform basic land surveying tasks such as shoot elevations, turn angles, locate reference points, establish grade lines etc.;
- Ability to do basic Computer Aided Design and drawings;
- Ability to use programs such as EXCELL and Word Processing;
- Ability to read and interpret plans and specifications, policies, rules and regulations;
- Ability to interact constructively and positively in daily assignments;
- Ability to communicate clearly both orally and in writing;
- Ability to write technical reports and records;
- Ability to analyze, troubleshoot, and devise more efficient practices and methods;
- Ability to develop workers skills and promote training and development;
- Ability to enforce rules and regulations;
- Ability to make arithmetic computations involving counting, addition, subtraction, division, multiplication, fractions, and basic algebra and geometry;
- Ability to interact with other county department staff in providing or assisting in requested services;
- Willingness to work in adverse weather;
- Willingness to respond to emergencies and work overtime;
- Dependability, initiative, resourcefulness, tact and good judgement are required; and
- The employee's physical and mental condition shall be commensurate with the demands of the position, either with or without reasonable accommodations.

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