

Civil Engineer I Tompkins County

Department: Highway

Classification: Competitive

Labor Grade: White Collar, Grade 17

Approved: 3/2022 by RP

By: RP, Commissioner of Human Resources

MINIMUM QUALIFICATIONS: No later than the final filing date announced, the applicant must demonstrate

(a) Graduation from an **ABET** accredited four-year college or university with a Bachelor's Degree in Civil Engineering or a related field, **AND**

1. Four (4) years of full-time paid experience in civil engineering design position related to construction and maintenance of highway infrastructure, or equivalent scope in project management, with a minimum of one (1) year of staff supervision experience; **AND**
2. Possess New York State Professional Engineer (P.E.) license, **OR**
3. Possess a Professional Engineer (P.E.) license from another state with the ability to obtain a New York State P.E. license within 6 months of employment.

(b) Any combination of education, training and experience in equal to or greater than specified above.

SPECIAL REQUIREMENT:

Must possess at the time of appointment a valid New York State drivers' license with a clear driving record and maintain it for the duration of employment.

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

DISTINGUISHING FEATURES OF THE CLASS:

This is a professional position requiring knowledge of engineering theory and principals and the ability to apply this knowledge in evaluating and preparing plans, proposals, reports, designs, specifications, and cost estimates for complex engineering projects. The incumbent in this position must evaluate the condition of highways, bridges, and related structures to determine repair, replacement, and rehabilitation needs. The ability to elect a project direction from a wide variety of alternatives and provide the most effective and efficient plan of work is required. This position is afforded a high level of autonomy and considerable latitude to exercise independent judgment and decision making in carrying out assignments. This position works under the general supervision of the Highway Director and works directly with consultants, contractors, and other staff to complete assigned tasks. The incumbent will perform all related duties as required.

TYPICAL WORK ACTIVITIES:

- Participates in design and project management of in-house highway and bridge projects as needed;
- Develops design criteria and budgets for highways and bridges construction and maintenance;
- Develops solutions to complex highway and/or bridge construction problems;
- Oversees, prepares and develops project feasibility studies (including economic analysis), prepares permit documents for submission to regulatory agencies;

- Prepares or directs the preparation of complex project designs, proposals, specifications, estimates and contract proposals;
- Develops quality control requirements and quality assurance programs to assure that designs and materials used in projects meet the specified requirements;
- Oversees contractor construction activities to ensure conformity to contract requirements including the quality of construction in adherence to predetermined schedules;
- Performs project inspections;
- Management of all phases of Federal Aid projects related to highways and bridges;
- Manages consulting firms performing design services for projects. This includes defining the scope, negotiating agreements, directing and monitoring the consultant's work to ensure adherence to budget and schedule, coordinating consultant activities with County organizations, coordinating changes in the scope of the agreements, and preparing performance evaluations of consultant;
- Oversees activities of consultants or contractors to ensure conformity to contract requirements including attendance, time on job, performance and the quantity and quality of work performed;
- Supervises, coordinates, inspects, and has oversight responsibilities of the work of consultants and contractors;
- Prioritizes projects and project activities for Federal Aid and projects;
- Participates in preliminary and final review of complicated project proposals;
- Reviews contract documents and submittals for conformance with agency policies and standards;
- Must possess a high level of interpersonal skills to understand conflicts and to motivate or influence staff consultants to come to conclusion on difficult matters or conflicting issues;
- Organizes, supervises and coordinates the work of consultants, and assigned support staff;
- Attends, participates in and/or conducts public meetings;
- Works directly with officials and administrators of other municipalities on projects as needed;

KNOWLEDGE, SKILLS, ABILITY AND PERSONAL CHARACTERISTICS:

- Performs independently and able to complete difficult assignments;
- Strong and effective oral and written communication skills.
- Tact and mental alertness are required.
- Initiative and resourcefulness in problem solving;
- Thorough knowledge of project management;
- Demonstrated knowledge of the principles of supervision;
- Ability to perform work requiring prolonged visual concentration and considerable visual effort;
- Ability to establish cooperative relationships with subordinates, public officials, staff, and representatives of contractors, consultants, and the public;
- Ability to establish project and work priorities;
- Thorough knowledge of the principles, practices, theories, and procedures of engineering. applicable to a municipal setting;
- Knowledge of applicable codes, laws, rules, regulations, and policies governing and impacting on design and construction, applicable to a municipal setting;
- Ability to plan, schedule, coordinate, and evaluate design, construction and maintenance programs;
- Thorough knowledge of construction materials, methods, standards (NYSDOT), and tests;
- Ability to evaluate complicated proposals and designs and select the most practical plan of work accomplishment;
- Ability to prepare, in final form, complex plans, designs, specifications, reports, contracts and narrative technical material;
- Ability to use computer software for administrative and design applications requiring considerable precision, for administrative and design applications;
- May be exposed to considerable risk of minimal injury and/or some risk of moderate injury visiting structures and construction sites;
- Ability to perform activities requiring physical effort (walking, climbing or reaching);
- The employee's physical condition shall be commensurate with the demands of the position.

