

Associate Civil Engineer Tompkins County

Department: Facilities

Classification: Competitive

Labor Grade: White Collar, Grade 17A

Approved: Bd. Res. #527 12/17/91

Revised: 1/92; 3/93; 12/00; 1/01; 3/04; 3/06; 3/07; 5/13; 12/18; 11/19

By: LG, Deputy Commissioner of Human Resources

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

(a) Graduation from a regionally accredited or New York State registered four-year college or university with a Bachelors Degree in Engineering, Architecture, Engineering Technology, Highway Technology or a related field **AND** eight years of full-time paid (or the equivalent part-time and/or volunteer) experience in an engineering or architectural design position; **OR**

(b) Graduation from a regionally accredited or New York State registered two-year college with an Associates Degree in Engineering, Architecture, Engineering Technology, Highway Technology or a related field **AND** ten years of full-time paid (or the equivalent part-time and/or volunteer) experience assisting in Civil Engineering work involving designing highway facilities and/or structures including bridges and buildings; **OR**

(c) Graduation from high school or possession of a high school equivalency diploma, possession of some professional level of training in the field of surveying **AND** at least twelve years of full-time paid (or the equivalent part-time and/or volunteer) experience assisting in Civil Engineering work involving designing highway facilities and/or structures including bridges and buildings; **OR**

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

SPECIAL REQUIREMENT:

The candidate must possess a valid New York state driver's license at the time of appointment and maintain such license 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 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 Manager 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:

- Supervises, coordinates, inspects, and has oversight responsibilities of the work of consultants and contractors;
- Prepares or directs the preparation of complex project designs, proposals, specifications, estimates and contract proposals;
- 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;
- Oversees, prepares and develops project feasibility (including economic analysis) and scoping studies, forecasts, design criteria, environmental studies and, highway capacity analysis;
- Develops design criteria for highways and bridges and/or safety systems to set work on a cost-effective basis;

- 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 the activities of the consultant with County organizations, coordinating changes in the scope of the agreements and /or requests for supplemental agreements, and preparing performance evaluations of consultant;
- 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;
- Develops quality control requirements and quality assurance programs to assure that designs and materials used in projects meet the specified requirements;
- Develops solutions to complex highway and/or bridge construction problems resulting in field changes and orders-on-contract;
- Oversees contractor construction activities to ensure conformity to contract requirements including the quality of construction in adherence to predetermined schedules;
- Oversees contractor construction activities to ensure conformance to contract requirements for quality and adherence to schedules;
- Works directly with officials and administrators of other municipalities on projects as needed;
- Performs project inspections;
- Reviews contract documents and submittals for conformance with agency policies and standards;
- Attends, participates in and/or conducts public meetings;
- Management of all phases of Federal Aid projects related to highways and bridges;
- Develops designs, contracts, and all other material related to projects;
- Participates in preliminary and final review of complicated project proposals;
- Prioritizes projects and project activities for Federal Aid and projects;
- Participates in design and project management of in-house highway and bridge projects as needed;
- Organizes, supervises and coordinates projects and the work of consultants, and project assigned support staff as required.

KNOWLEDGE, SKILLS, ABILITY AND PERSONAL CHARACTERISTICS:

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

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