

Engineering Technician II

Reports To: Assistant City Engineer

FLSA Status: Non-Exempt

Grade: L-NE

Department: Public Works

Summary: This position has responsibilities that range from advanced level to supervisory level in support of a broad range of engineering specialty activities. Duties include interpreting engineering guidelines; coordinating varied activities; performing engineering drafting and design work, traffic engineering improvements, materials acceptance evaluations, bridge/structure inspections and construction inspections for moderate to major scale projects; providing training and technical assistance to others; performing detailed reviews of engineering related projects; and preparing plans, designs, specifications, and bid packages for division projects.

An Engineering Technician II is expected to communicate technical and non-technical information clearly and effectively, both orally and in writing with other City staff, public officials, external entities, external professionals and the public.

Work is performed under the general supervision of the engineering staff. This position reports to the Assistant City Engineer.

Essential Functions: Other duties may be assigned. These examples may not include all the tasks and/or knowledge which may be expected of the employee, nor do they cover all the specific duties which may be required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Organizes, reviews, plans, designs, drafts, performs survey and construction layout, and inspects projects under the general supervision of engineering staff.

Provides appropriate technical engineering support and/or coordinates the planning, design, construction and/or rehabilitation of comprehensive engineering projects and activities.

Communicates technical and non-technical information verbally and in writing in a clear and professional manner with engineers, contractors, outside agencies and members of the general public.

Duties are wide ranging and include the following as examples: ensuring that projects, programs and procedures are effectively and efficiently administered and providing practical technical expertise in making decisions in the review, analysis, coordination and delivery of an engineering function or project.

Performs engineering drafting and design work, traffic engineering improvements, materials acceptance evaluations, bridge/structure inspections and construction inspections for moderate to major scale projects.

Provides training and technical assistance to others.

Prepares plans, designs, specifications, and bid packages for division projects.

Performs detailed work using computer aided design systems (CAD) and geographic information systems (GIS). Uses software applications for word processing, spreadsheet and email

Maintains complete and accurate records. Tracks quantities, prepares progress payments, and complete final documentation.

Works with a high degree of accuracy.

Travels throughout the City to conduct a wide variety of on-site inspections and evaluates project progress and adherence to design or other applicable standards.

Keeps current in relevant skills and knowledge.

Demonstrates critical thinking and problem solving as applicable to assigned tasks.

Performs other duties as assigned or required.

Qualifications:

1) Education/Experience:

Associate's degree in Construction Technology, Civil Engineering Technology or equivalent with a minimum of five (5) years work experience preferred focused in engineering and construction activities, computer-aided design systems (CAD), and geographic information systems (GIS); or high school diploma or general educational development (GED) certificate and equivalent combination of education, experience, and training.

2) General Skill Levels:

Knowledge of:

- Principles of civil engineering including planning, design, construction and/or rehabilitation of comprehensive engineering projects and activities

- Construction methods, materials and testing techniques
- State and municipal codes and specifications
- Computer Aided Design (CAD) and Geographic Information Systems (GIS)
- Mathematical concepts of civil engineering as applicable to this position
- Software applications for word processing, spreadsheet and email.
- Survey and GPS equipment and techniques for field data collection, way finding and layout.

Skill in:

- Applying the principles of civil engineering to assigned work
- Effectively and efficiently administering programs and procedures
- Reviewing, analyzing, coordinating and delivering an engineering function or project
- Applying civil engineering mathematical calculations as appropriate to this position.
- Communicating effectively, clearly and professionally in writing and verbally with other employees, engineers, contractors, outside agencies and members of the general public.
- Organizing and planning work tasks.
- Assessing construction project progress and adherence to design and appropriate standards
- Providing training and technical assistance to others.

Ability to:

- Work independently under general supervision.
- Understand and apply principles of civil engineering as appropriate to this level position.
- Make sound assessments of project progression, adherence to design and other applicable standards.
- Communicate effectively and professionally in writing and verbally.
- Establish and maintain effective working relationships with a variety of individuals.
- Read and interpret engineering designs and plans, professional reports and studies, technical procedures, professional guidelines and government regulations as appropriate to area of responsibility. Apply technical information and regulations to work product and in the administration of projects.
- Prepare plans, designs, specifications and bid packages for division projects.
- Collect and process field data utilizing GPS mapping grade, GPS survey grade, and total station instruments.
- Use mathematics as appropriate to area of responsibility

- Use a computer aided drafting systems. Compose, edit and produce documents, communicate with email, perform internet searches, etc.
- Organize and maintain detailed records.
- Organize and plan work and coordinate with the work of others. Bring projects, including large scale projects to conclusion within established timelines.
- Travel throughout the community to inspect a wide variety of worksites.
- Move through worksites, often on uneven, wet or slippery terrain including natural and altered ground surfaces
- Visually inspect construction work and materials and may require bending and stooping.
- Climb steps and slopes.

3) Certificates and Licenses: Valid Illinois driver's license.

4) Physical Requirements/Working Conditions: Work is performed in an office environment and outdoors in all conditions including hot, cold, wet and dry weather. Work requires traveling to in-town construction sites and the ability to traverse a variety of natural and altered ground surfaces which may be uneven, wet or slippery or sloped.