

City of Kansas City, Missouri

Job Class Specification

Job Title:	SENIOR ENGINEERING TECHNICIAN	Department:	MULTI
Job Code:	2013	Status:	NONEXEMPT
		Grade:	NE-7

Summary

This is advanced and highly responsible work involving the use of a computer aided drafting and design (CADD) system, automated mapping, or geographical information system (GIS) and the training or supervision of other personnel in the use of these systems. Work involves the development of standard practices and the customization of the system to suit the needs of various applications within the work group. Employees of this class may train or assist other personnel in the use of these systems. Work could include the design of small projects under the supervision of a technical superior.

OR

This is complex engineering field or office work of highly technical dimensions encompassing a broad range of citywide public works and utilities programs and projects. Work involves responsibility for performing a variety of technical functions including but not limited to research, planning, design, surveying, and inspection of facility construction, modification and renovation, air quality, transportation and utility systems. Work may involve supervisory responsibilities over small to moderate sized crews. Assignments are received in oral and written form with general directions. Employees are expected to exercise considerable discretion and broad independent judgment. Work is inspected by technical superiors while in-process, by conferences and submitted reports and upon completion for adherence to departmental standards.

Duties and Responsibilities

- Responsible for coordination, direction, control, and development of quality standards and the customization of software packages for the efficient operation of the CADD or GIS system to suit the needs of the work group.
- Coordinates and directs the work of one or more technicians engaged in the production of drawings for engineering projects, maps utility locations and legal documents.
- Performs system back-ups for archiving and restoring files, as well as basic system maintenance.
- Performs basic engineering applications in the production of project plans under the guidance of a supervisor.
- Meets with the public to resolve customer complaints and provide technical advice to same.
- Understands the basic operation of other software packages so that he/she is capable of coordinating all data between different sections or departments.
- Supervises and participates in preparation of plans, specifications, cost estimates, ordinances, studies, utility relocation determinations and other activities related to right-of-way matters.
- Supervises in-process and final inspection of assigned projects.
- Reviews and checks preliminary and final plans for a variety of public works projects and structures.

Duties and Responsibilities
(continued)

- Performs physical and chemical tests of construction and maintenance materials, and prepares related reports and specifications.
- Surveys and evaluates geological surface conditions which might affect public works construction such as rock outcroppings, swamps, landslides, etc., and prepares reconnaissance reports; analyzes and reports on soil conditions.
- Supervises and collects, analyzes and interprets various types of traffic flow and control data as a basis for developing recommendations or plans for the placement of traffic control signals, pedestrian signals and vehicle detectors, and the timing and phasing of controllers; participates in the development of plans for streets and intersection realignment.
- Develops project work and control schedules; assigns and supervises personnel accordingly.
- Coordinates activities with consulting and construction firm personnel and city staff.
- Performs related duties as required.

Technical Skills

Considerable knowledge of:

The terminology, methods, equipment, practices, instruments and techniques of general engineering, general drafting, automated mapping or geographical information systems, mathematics such as geometry, trigonometry and mathematical formulas used in engineering and civil design operations.

The principals and practices of construction, surveying, drafting, CADD and GIS work.

The principals of municipal engineering as applied to public works or utility design, records and construction work.

Common computer operating systems.

Computer aided drafting and design (CADD) software.

Ability to:

Develop plotting pen tables and feature and attribute tagging protocols.

Plan, organize instruct and supervise the work of other personnel in a manner conducive to full performance and high morale.

Operate applicable software packages to suit the various needs of the work group.

Create highly complex engineering plans and drawing with minimal assistance.

Supervise subordinates in complex engineering tasks.

Establish and maintain effective working relationships.

Follow complex oral and written instructions.

Skill In:

Drafting highly complex engineering plans and drawings.

Use, care and adapting of computer aided drafting and design hardware and software.

Automated mapping and GIS.

Use of highly complex engineering, survey, drafting and testing instruments and equipment.

Education and Experience

High school graduation and seven (7) years of experience in engineering drawing, mapping, automated mapping, geographical information systems (GIS) and equipment or computer aided drafting and design (CADD), engineering, land survey, or construction inspection or an acceptable combination of education and experience.

OR

High school graduation and five (5) years of experience in engineering drawing, mapping, automated mapping, geographical information systems (GIS) and equipment or computer aided drafting and design (CADD), engineering, land survey, construction inspection and possession of a Level II Engineering Technology Certification in any Civil, Electrical or Mechanical discipline as issued by the National Institute for Certification in Engineering Technologies (NICET) or "Land Surveyor in Training" as issued by the Missouri Board for Architects, Professional Engineers, Professional Land Surveyors, and Professional Landscape Architects.

OR

High school graduation and possession of the Level III Certification as “Engineering Technician (ET)” as issued by the National Institute for Certification in Engineering Technologies (NICET) or a Registered Land Surveyor’s License as issued by the Missouri Board for Architects, Professional Engineers, Professional Land Surveyors, and Professional Landscape Architects.

**Certificates/
Licenses/Special
Requirements**

- Must pass a background check as prescribed by the City.
- Must pass a preemployment drug screen.
- Must pass a physical examination as prescribed by the City.
- Must possess a valid State –issued driver’s license in accordance with the City of KCMO policies.
- Must possess Missouri Registered Land Surveyors License for appointment as assistant chief Surveyor.

**Supervisory
Responsibility**

Supervision may be exercised over assigned personnel.

**Supervision
Received**

Work is performed under general supervision.

Note: This job description should not be construed to imply that these requirements are the exclusive standards of the position. Incumbents will follow any other instructions, and perform any other related duties, as may be required. Reasonable accommodation will be provided to qualified individuals with disabilities. The City of Kansas City has the right to revise this job description at any time. The job description is not to be construed as a contract for employment.

Created

Revised

4/9, 6/99, 9/06, 11/18, 8/22, 07/2023