

GIS SPECIALIST/SURVEYOR

Position Title: GIS Specialist/Surveyor
Department: Public Works
Department Head: Public Works Director
Immediate Supervisor: Assistant City Engineer
Pay Range: 6 **FLSA Status:** Non-exempt

<i>APPROVED:</i> _____ April 5, 2000 <i>REVISED:</i> Revised March 22, 2016 <i>REVISED:</i> Revised October 31, 2016 <i>REVISED:</i>

Purpose

Performs non-supervisory technical and administrative work to carry out surveying, drafting and inspecting responsibilities. Gathers information on alignment topography, vertical control, horizontal control and stake out. Prepares plans and specifications for public improvement projects. Develop, implements and maintains a centralized geographic information system (GIS) to accommodate use by all departments. Inspects projects for compliance with plans/specifications and assure quality control measures are followed. Designs and drafts future projects. Assists in contract administration.

Organizational Relationships

Communicates with: *Internally* - Public Works Director and other department directors, MUC supervisory staff, Public Works, Wastewater Treatment, Leisure Services and Planning and Development staff; *Externally* - contractors, property owners, County personnel, MN Department of Transportation, Pollution Control Agency, land surveyors, consulting engineers, plumbers, and the general public.

Supervises: None (provides work direction to part-time employees)

Essential Functions

Use a variety of instruments and equipment to perform field surveying; record complete and accurate field data; stake out the alignment and placement of various infrastructure items; and locate utility lines before digging.

Prepare plans and specifications for major and minor projects: analyze field data, drafts and designs plans and review/rewrite specifications.

Develop cost estimates for projects by checking project quantities and assigning values.

Inspect and monitor progress of multiple projects: compliance with plans and specifications; record project quantities; keep records for as-builts; discuss projects with residents; and prepare contractor pay estimates.

Update as-builts by making changes or additions to plans, maps and other files.

Review pay items with contractor to prepare final project cost and payment reports.

Locate information on rights-of-way and easements; interpret maps and write land descriptions.

Assist in rating streets for maintenance needs such as seal coating, overlay, and reconstruction.

Prepares projects for other City departments.

Maintain and update City GIS master database of land, utilities, infrastructure, custom digital maps and data, digital aerials and other associated databases utilizing GIS data.

Consults with departments to define GIS programming needs.

Participate in the development and implementation of programming standards and operating procedures for GIS computer equipment including software and hardware; evaluate and determine computer software needs.

GIS SPECIALIST/SURVEYOR

Other Duties and Responsibilities

Assist with building inspections when requested.
Oversee various projects such as tank removals and pollution issues.
Answer questions about existing and planned utilities.

Required Knowledge, Skills and Abilities

Performs other related duties as assigned by Supervisor or as apparent.
Knowledge of, and ability to apply, engineering and surveying standards/practices/techniques, MNDOT specifications book, MNDOT schedule of materials testing, software operating manual, MNDOH Permit, MPCA permit, MNDOT permit NPDES permit, and ADA requirements.
Knowledge of, and ability to understand, engineering and surveying manuals, applicable state and federal regulations, and City ordinances and policies.
Knowledge of construction practices and procedures and City requirements.
Skill in using a total station, GPS, level, drafting tools, large copy machine, computer, calculator and iron detector.
Skill in operating a variety of survey and computer equipment and software.
Knowledge and proficiency of GIS software
Ability to coordinate public projects.
Ability to maintain MNDOT certification for work on State Aid projects.
Ability to prioritize and carry out work assignments, individually and as a team.
Ability to use City vehicles for inspection and transporting equipment.

Machines, tools and equipment used: survey equipment, material testing equipment, inspection and survey vehicle, computers and software, vehicles, telephone and fax, copiers and calculators.

Minimum Qualifications

Two-year technical degree in surveying, drafting, civil engineering or closely related field.
Minimum two years of surveying experience desired. Two years of increasingly responsible experience in GIS analysis or design experience.

Working Conditions

Time is spent indoors in a typical office setting and outdoors while surveying and monitoring construction projects. Spends extended period of time sitting at computer and drafting surfaces and standing/walking at work sites. Performs a variety of physical movements, including lifting objects such as survey/engineering equipment. Exposure to weather conditions and noise. Uses large and fine motor skills and many types of vision and hearing.