ENGINEERING TECHNICIAN IV - SURVEYING

NATURE OF WORK
This is intermediate to advanced paraprofessional field and office civil engineering work. Work involves performing technical and complex work in GIS and cartography, surveying, design, plan preparation, and engineering inspections. Position is responsible for surveying for all aspects of municipal design and construction. Position is also responsible to have a working knowledge of the software programs used in the Engineering Department. Work is performed under the general supervision of the Assistant City Engineer who makes general assignments and reviews work to see that it is performed in accordance with instructions and accepted engineering principles.

ESSENTIAL JOB FUNCTIONS
1. Serves as survey crew chief for survey work. Trains and performs field supervision of seasonal employee(s). Performs preliminary, construction, and as-built survey work and miscellaneous surveys.
2. Assists in the preparation of feasibility studies to determine the viability and cost effectiveness of proposed projects.
3. Possesses a working knowledge of the software programs in the Engineering Department.
4. Prepares maps and displays with data sets from different sources such as GIS tables, base maps, planimetric data, contour information, aerial photos, and text.
5. Performs research work for preparing construction plans. Performs preliminary and final design work under the general direction of the Assistant City Engineer or the City Engineer.
6. Performs a variety of drafting duties, including proposed construction plans, as-built plans, and miscellaneous drawings.
7. Prepares displays for public meetings and attends meetings as necessary.
8. Prepares cost estimates of proposed construction and maintenance projects.
9. Inspects construction projects to ensure compliance with specifications. Maintains appropriate MN/DOT certifications for field inspection.
10. Maintains accurate records of construction activity. Submits project status reports as needed. Prepares estimates for payments to contractors.
11. Responds to citizen concerns and complaints in a courteous and professional manner.
12. Establishes and maintains infrastructure records for the City.
13. Operates a variety of equipment including total station survey equipment, and computer with engineering and office related software.
14. Participates in all phases of survey work.
15. Conducts surveys utilizing transits, levels, and other engineering survey equipment.
16. Performs other duties related to the position as assigned.

REQUIRED QUALIFICATIONS
High school graduation or equivalent. Two years of college or technical courses in mathematics, drafting, land surveying and/or engineering, or equivalent experience. Three years experience in use of computer equipment with a working knowledge of software used in the Engineering Department. Three years experience in use of total station surveying equipment

for municipal design and construction projects. Crew Chief experience. Three years municipal design and inspection experience. Public contact work experience.

KNOWLEDGES, SKILLS, AND ABILITIES
Considerable knowledge of the software used in the Engineering Department.
Considerable knowledge of land surveying. Ability to perform precise survey work, make engineering computations, and reduce field notes.
Considerable knowledge and experience with the principles and practices of municipal public works design and plan preparation.
Considerable knowledge of the methods and standards of construction.
Considerable knowledge of engineering maps and records, and associated nomenclature and symbols.
Skill in the operation of a variety of engineering and surveying instruments, personal computer, and software.
Ability to communicate effectively, orally, and in writing.
Ability to understand and work from oral and written instructions and sketches.
Ability to establish and maintain effective working relationships with co-workers and contractors and the general public.