

ENGINEERING TECHNICIAN I ENGINEERING DEPARTMENT CITY OF WINONA, MINNESOTA	JOB DESCRIPTION	
	REPORTS TO: City Engineer	
	DIRECTLY SUPERVISES: None	
	2/1/02	APPROVED: EBS

SUMMARY:

Perform drafting work in the office, CAD and conventional drafting; assist on the survey crew, operate total station and level, staking, etc. Serve as construction inspector on projects. Maintain public works records and maps.

ESSENTIAL FUNCTIONS OF THE JOB:

- Draft plan size drawings for construction projects from surveying field notes.
- Prepare construction plan copies from originals.
- Assist public seeking information from City records of construction, etc.
- Assist survey crew as needed with survey measurements, staking, etc.
- Substitute for other technicians in their absence.
- Fill in for Locator on utility inspections.
- Operate the level, total station and all other surveying equipment related to surveying.
- Perform drafting work in the office including CAD and GIS.
- Serve as construction inspector.
- Can be assigned to a wide variety of tasks and duties in public works

QUALIFICATION REQUIREMENTS:

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

EDUCATION AND EXPERIENCE:

- Education and/or experience in conventional and CAD drafting methods
- Operation of computers, calculator, surveying equipment including total station and level
- Mathematics, trigonometry, geometry, construction inspection, construction procedures
- Vocational School certificate in Civil Engineering

LANGUAGE SKILLS:

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- Ability to communicate with co-workers and public
- Ability to word construction notes on plans so that they may be easily understood
- Ability to read and understand standard specifications for construction

MATHEMATICAL SKILLS:

- Ability to make arithmetic computations using whole numbers, fractions and decimals.
- Ability to compute rates, ratios and percentages
- Ability to use geometry and trigonometry in surveying

OTHER SKILLS AND ABILITIES:

- General knowledge of computer operations
- Ability to make blueprints and copies in sepia, vellum, paper, etc.
- Ability to conduct necessary testing of construction materials
- Ability to perform construction testing including sieve analysis, breaking concrete cylinders, conducting concrete air tests, measurement of temperatures and asphalt content in asphalt concrete
- Ability to draft an improvement plan using a CADD package
- Knowledge of construction necessary to supervise construction inspection
- Competency with CADD/GIS systems
- Ability to care for surveying equipment

CERTIFICATES, LICENSES, REGISTRATIONS:

- Valid Driver's License
- Valid Class B Commercial Driver's License preferred

MINIMUM QUALIFICATIONS:

- Completion of 12th grade or certificate of equivalency is required
- Certification in civil engineering from a vocational or trade school is required
- Valid Driver's License

PHYSICAL DEMANDS:

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions of this job which include, but are not limited to, measure distances with tape at ground level; dig with shovel; communicate in person and on telephone; operate

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computer; climb steep grades and rough ground during surveying. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee frequently sits; climbs or balances; stoops, kneels, crouches or crawls; and reaches with hands and arm. Employee regularly stands; walks; talks or hears; and uses hands to finger, handle or feel.

While performing the duties of this job, the employee occasionally lifts up to and more than 100 pounds. Specific vision abilities required to perform this job are close vision; distance vision; color vision; peripheral vision; depth perception; and ability to adjust focus.

WORK ENVIRONMENT:

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee may regularly be required to work near moving mechanical parts; be exposed to fumes or airborne particles; and work in outdoor weather conditions; and occasionally be required to work in high, precarious places; be exposed to toxic or caustic chemicals.

The noise level in the work environment is moderate to loud.