

Job Description

Human Resource Use Only

Position Number:

Step/Grade: H

Effective Date:

POSITION IDENTIFICATION

Position Title: Engineering Technician I

Division: Department of Public Infrastructure – Engineering Division

Status: Full-Time Hourly

Workweek: Monday - Friday

SUPERVISORY RELATIONSHIPS

Reports to: Engineering Division Manager Team Leader

Directly Supervises: None

POSITION PURPOSE

This position performs a variety of entry level paraprofessional engineering work requiring skills and knowledge in digital and hand drafting, surveying, construction inspection and some light engineering design in the office and in the field. Supervision is received from Engineering Technicians or Engineering Division Manager Team Leader. This position is expected to perform routine tasks independently with reference to a supervisor only when difficult or unusual problems occur. This position is similar to an Engineering Technician II position except that an Engineering Technician I receives more oversight and is assigned less complex tasks.

ESSENTIAL DUTIES

- Performs basic drafting of sewer, street, sidewalk, and other construction projects while displaying accuracy and neatness
- Assists in preliminary field surveys, stakes line and grade, and other staking and surveying as required
- Serves as assistant on the survey crew
- Cuts and removes brush from survey lines and searches for survey monuments as directed
- Determines construction site elevations needed for compliance with plan specifications
- Determines if materials and quantities used comply with contract specifications
- ~~Performs inspections for~~ Assists with the City's Sidewalk Program including city-wide inspection of sidewalks, evaluation of repairs, notices, cost estimates, pay estimates, and assessment charges
- Inspects minor public works projects for compliance with the plans and specifications
- Prepares necessary reports and keeps neat and accurate records relating to the inspection of public works construction projects
- Performs basic engineering calculations accurately
- Makes field measurements for records and payment purposes, and records construction data in the field book
- Updates original construction plans from field notes, complete as-builts
- Performs concrete, air, slump, and cylinder tests

- Handles questions and complaints in the field from property owners affected by construction
- Performs drafting of plans, mapping and updating existing drawings, plans, and maps by hand and on the Computer Aided Drafting and Design (CADD) System and GIS System
- Uses a personal computer to prepare various documents using Microsoft Word, Excel and Access programs~~spreadsheet, word processing~~, e-mail, ~~database~~ and web related programs
- Codes and files new resource data, construction notes, drawings and surveys
- Maintains records of existing surfaces and current street surface classifications
- Checks and compiles various estimates
- Researches records or deeds for property owners for assessment purposes
- Plots, surveys, and draws field notes to scale showing alignment, topography and profile
- Cleans and maintains file cabinets~~drawing~~ and various~~blueprinting~~ equipment
- Maintains survey equipment, vehicles and supplies
- Field locating and marking of existing sewers

OTHER DUTIES

Other duties as assigned

MINIMUM POSITION QUALIFICATIONS

Education: Minimum requirements include high school diploma or equivalent supplemented by an equivalent combination of experience and training preferably drafting, surveying mathematics, computer aided drafting and design (CADD) which provides the required knowledge, skills, and abilities for the position as determined by Management. A two-year degree in Civil Engineering Technology or equivalent education in a related field like drafting, surveying, etc. is preferred.

Experience: Experience in general engineering work, drafting, surveying, construction inspection, mathematical procedures, and performing minor engineering calculations accurately. Knowledge of the methods, materials, and instruments used in drafting, surveying, construction inspection and concrete testing.

Certifications/Licenses: Must possess a valid motor vehicle operator's license issued by the State of Wisconsin.

KNOWLEDGE, SKILLS, & ABILITIES

Ability to read and interpret design manuals, specification manuals, City Ordinances, State laws, building codes, and any other necessary codes or regulations; ability to read and interpret construction plans and specifications; ability to present facts and recommendations effectively in written and oral form; ability to prepare drawings from field notes. Must have the knowledge of basic algebraic and trigonometric mathematical procedures and the ability to perform minor engineering calculations accurately. The ability to read and interpret charts and graphs, etc. The candidate should have some experience in the use of personal computers. Computer experience with personal computer programs including Microsoft Word, Excel and Access ~~word processing, spreadsheet, database~~, e-mail, CADD, and GIS. Must exercise good judgment at all times; must have the ability to maintain a courteous and professional attitude ~~and a reasonable demeanor~~

during all conversations; must have the ability to discuss and resolve problems in a tactful and professional manner. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, and ability to adjust focus.

BACKGROUND CHECKS- Condition of Employment

PHYSICAL DEMANDS

The physical demands described herein 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.

Manual Dexterity: While performing the duties of this job, the employee is regularly required to stand, walk, use hands and fingers to handle or feel; reach with hands and arms; stoop, kneel, carry, twist, crouch; talk and hear. The employee is occasionally required to sit, climb, balance, or smell, and may be required to work in high places.

Physical Effort: The employee must regularly lift and / or move up to 25 pounds, frequently lift and / or move up to 50 pounds, occasionally lift and/or move more than 100 pounds.

Working Conditions: While performing the duties of this position, the employee is regularly exposed to outdoor weather conditions; regularly walks over uneven terrain such as construction sites; and works in close proximity to heavy construction equipment and trucks during site inspection work. The noise level in the office work environment is generally low; however, exposure to very loud noises may occur during the inspection of construction sites as well as being exposed to fumes and airborne particles. The employee must be able to adjust from one schedule to another at short notice and be able to maintain attention to task in overtime situations. Ability to work under adverse weather conditions.

This position description has been prepared to define the general duties of the position, provide examples of work and to detail the required knowledge, skills and abilities as well as the acceptable experience and training for the position. The description is not intended to limit or modify the right of any supervisor to assign, direct, and control the duties of employees under supervision. The City of Manitowoc retains and reserves any and all rights to change, modify, amend, add to or delete from any portion of this description in its sole judgment.

This job description is not a contract for employment.

The City of Manitowoc is an equal opportunity employer, in compliance with the Americans with Disabilities Act. The City will provide reasonable accommodations to qualified individuals with disabilities and encourages both prospective and current employees to discuss potential accommodations with the employer.