



Position Description Master Electrician

DEPARTMENT: Line
FLSA CLASS: Union, Non-Exempt
REPORTS TO: Electric Distribution Superintendent
SUPERVISES: Electrician-Utility Technician
LAST REVISED: September 12, 2022

SUMMARY:

Under the general supervision of the Electric Distribution Superintendent, the Master Electrician performs a variety of skilled work in the design, installation, and maintenance of electrical equipment, controls, and communications.

To perform this job successfully, an individual must be able to perform each duty satisfactorily. The requirements listed below are representative of the knowledge, skills, and abilities required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions of the position. The essential functions listed below are intended to serve as illustrations of the various types of work that may be performed. The omission of specific duties does not exclude them if the work is similar, related, or a logical assignment to the position.

ESSENTIAL FUNCTIONS OF THE JOB INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:

- Monitors traffic signal operations in conjunction with MnDOT and coordinates maintenance of the signals and signal components.
 - Signs and authorizes City facility-related electrical work that requires State review.
 - Installs and troubleshoots controls and VFDs on City-owned equipment.
 - Assists the wastewater department with maintenance and improvements at lift stations.
 - Installs and repairs wiring, lighting, and electrical equipment in all City-owned buildings.
 - Performs or assists in the design of electrical components and distribution infrastructure.
 - Conducts routine maintenance and inspections of substations.
 - Maintains responsibility for the installation and maintenance of civil defense sirens, airport runway lighting, and MALSR.
 - Installs and maintains load management system.
 - Stays up to date on topics such as safety measures, accident prevention, and hazardous materials through meetings, seminars, and workshops.
 - Enters and works in confined spaces with high voltage.
 - Performs connects and reconnects for residential and commercial services; repairs broken or worn-out electrical equipment; installs 3-phase and single-phase electrical meters; and troubleshoots electrical problems, blinking, radio noise, and high or low voltage.
 - Perform other related duties as required or assigned.
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EQUIPMENT USED:

- Bucket truck
- Computer, tablet, smart phone
- Electrical testing equipment
- Generator
- Hydraulic press
- Various hand tools

REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES:

- Knowledge of electrical and electronics principles.
- Knowledge of basic computer operations and software programs.
- Knowledge of principles and application of traffic work zone safety.
- Knowledge of electricity, municipal electrical system, and components.
- Knowledge of industrial automation, including VFDs and PLCs.
- Ability to communicate effectively both orally and in writing.
- Ability to use independent judgment in decision making.
- Ability to read and interpret construction plans, specifications, and electrical schematics.
- Ability to read and understand the National Electrical Code.
- Ability to effectively manage variable workloads and time commitments.

MINIMUM QUALIFICATIONS:

- High school diploma or equivalent
- Master Electrician License

PREFERRED QUALIFICATIONS:

- MnDOT Traffic Signal and Lighting Certification
- IMSA Work Zone Safety and Traffic Signal Systems Certification
- Two-year degree in electrical or electronics-related field

CONDITIONS OF EMPLOYMENT:

- Possession of a valid Driver's License or the ability to obtain one within 30 days of hire.
- Must satisfactorily pass a criminal background examination.

WORK SCHEDULE:

The typical work hours for this position are 7:00 a.m. to 4:00 p.m., Monday – Friday. Other hours and call duty may be required as assigned.



WORK ENVIRONMENT/PHYSICAL DEMANDS:

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.

This position requires the employee to work alone, with others, around others, and have contact with the public. This position will work both inside, outside, in confined spaces, on uneven ground and underground and be exposed to dust, dirt, noise, excessive noise, vibration, high voltage, pressurized equipment, explosive material/equipment, burning material/equipment, moving objects, heat, extreme heat, cold, extreme cold, wetness, humidity, and marked changes in temperature and/or humidity.

Activities that will occur continuously include twisting; climbing; reaching at shoulder level with the right, left, and both arms at the same time; use of fingers and hands; handling; fine manipulating; use of right, left, and both feet at the same time; talking; hearing and seeing with near vision, far vision, depth perception, accommodation, and field of vision; smelling; and carrying and lifting up to 10 pounds.

Activities that will occur frequently include problem solving; using analytical abilities; verbal communication; concentration; working with interruptions and demonstrating time management; crouching; kneeling; climbing heights; reaching above and below shoulder level with the right, left, and both arms at the same time; use of the sense of touch; seeing with color vision; and carrying and lifting up to 24 pounds.

Activities that will occur occasionally include demonstrating interpersonal skills, organizational skills, and creativity; bending/stooping; squatting; pushing; and carrying and lifting up to 34 pounds.

Activities that will occur infrequently include crawling as well as carrying and lifting over 75 pounds.



This job description does not constitute an employment agreement between the employer and employee and is subject to change by the employer as the needs of the employer and requirements of the job change.

ACKNOWLEDGEMENT:

I have read this job description and fully understand the requirements set forth herein. I understand that this is to be used as a guide and that I will be responsible for performing other duties as assigned. I further understand that this job description does not constitute an employment contract with the City of Fairmont.

Employee Signature

Printed Name

Date