

SIGNAL MAINTENANCE WORKER

SUMMARY/PURPOSE

To perform technical work in the installation, repair, operation, and maintenance of electrical, traffic signal equipment, and street lighting equipment.

ESSENTIAL DUTIES AND RESPONSIBILITIES

1. Install, maintain and repair traffic control devices, including traffic signals, signal heads, communication cable, machine vision processors, speed reader boards, and related devices within the City of Duluth and surrounding municipalities.
2. Install, maintain and repair the City's emergency pre-emption system.
3. Test traffic control and signal equipment and related devices to identify defects in electric, analog, electronic, digital, and microprocessor equipment according to system schematics.
4. Install, maintain, and repair citywide traffic supervisory control and data acquisition system communications and networks including, but not limited to, radio including wireless, fiber optics, and twisted pair.
5. Install, maintain, and repair street lighting devices and systems, including control cabinets and all associated infrastructure.
6. Assist with inspecting the work of contractors for proper operation and to ensure contract specifications are met.
7. Investigate and respond appropriately to citizen input, inquiries, and complaints.
8. Clean, organize, and maintain work areas, vehicles, tools, and equipment.
9. Be an effective team member by exhibiting self-motivation, supporting other employees in handling tasks, interacting effectively and respectfully with others, showing a desire to contribute to the team effort, accepting assignments willingly, and completing tasks within agreed upon timelines.
10. Other related duties may be assigned.

JOB 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, skills, and abilities required.

1. Education & Experience Requirements
 - A. Two years of experience working as a construction laborer, street maintenance laborer, or equivalent experience.
 - B. Two years of specialized electrical training or an electrical degree is preferred.
2. License Requirements
 - A. Possession of a valid Minnesota Driver's License or equivalent.
 - B. Register with the State of Minnesota as an Unlicensed Electrician within six (6) months of hire date.
 - C. Acquire a Minnesota Class B Commercial Driver's License within twelve (12) months of hire date.
 - D. Acquire State of Minnesota Technical Certification for Signals & Lighting within twelve (12) months of hire date.
3. Knowledge Requirements
 - A. Basic knowledge of the methods, tools, equipment, and materials used in the repair of electrical systems.
 - B. Basic knowledge of the National Electrical Code.
 - C. Basic knowledge of state and local regulations governing electrical wiring.
 - D. Knowledge of precautionary, safety, and fire prevention methods involved in electrical work.

- E. Basic knowledge of general safety practices and procedures.
4. Skill Requirements
- A. Skill in performing repairs and related work using hand and power tools.
 - B. Skill in communicating with others to determine the nature of equipment malfunction and assist with problem diagnosis.
 - C. Basic skill in the use of computer equipment to control, program, and diagnose equipment.
 - D. Skill in manipulating tools and equipment using fine hand movements.
 - E. Basic skill in reading and interpreting blueprints and schematic drawings.
5. Ability Requirements
- A. Ability to work outside year-round.
 - B. Ability to work from ladders, scaffolds, and lifts up to 50 feet high.
 - C. Ability to use hand and power tools.
 - D. Ability to establish and maintain effective working relationships with co-workers, supervisors, and the general public.
 - E. Ability to create and maintain a positive working environment that welcomes diversity, ensures cooperation, and promotes respect by sharing expertise with team members, fostering safe work practices, and developing trusting work relationships.
 - F. Ability to make repairs on electrical and electronic signal equipment.
 - G. Ability to safely operate service vehicles.
 - H. Ability to work on-call after completion of regular assigned work hours.
 - I. Ability to use good judgment and work independently with limited supervision.
 - J. Ability to plan, set up, and maintain work zone traffic control.
 - K. Ability to adapt to changing technologies and learn functionality of new equipment and systems applicable to this position.
6. Physical Ability Requirements
- A. Ability to feel to perceive temperature fluctuations caused by equipment malfunction.
 - B. Ability to smell to distinguish overheated or burned-out components, often by type of component.
 - C. Ability to work in confined spaces.
 - D. Ability to frequently stand, reach, and finger and occasionally walk, sit, push, pull, climb, balance, stoop, kneel, crouch, handle, feel, talk, hear, and smell as needed to perform work activities.
 - E. Ability to frequently see at near and mid distances using color vision to diagnose and repair electronic and electrical equipment and to occasionally see at far distances using depth perception and visual accommodation and field of vision to observe equipment function and for vehicle operation.
 - F. Ability to frequently lift and carry various items including tools boxes weighing up to 40 pounds and occasionally lift and carry, with assistance, street lighting light poles weighing up to 70 pounds.
 - G. Ability to attend work on a regular basis.

HR: LD	Union: Basic	EEOC: Service/Maintenance	CSB: 09/03/2019	Class No:
WC: 5506	Pay: 27	EEOF: Utilities/Transportation	CC:	Resolution: