CLASS TITLE: TRAFFIC SIGNAL REPAIRMAN

CHARACTERISTICS OF THE CLASS
Under supervision, installs, maintains, and repairs traffic signal control devices and related electrical equipment in the field or in the shop as assigned, and performs related duties as required.

ESSENTIAL DUTIES
- Examines wiring diagrams, circuit blueprints, cable prints, and controller timing-sequence charts to determine existing electrical configurations.
- Works in the field, installing new traffic signals and control cabinet equipment requiring electrical wiring of timing devices and control mechanisms.
- Locates, identifies, and clears defects in cables and wires using testing equipment including multi-meters and resistance banks.
- Adjusts and replaces electronic traffic signal timing devices and control mechanisms.
- Troubleshoots electrical and mechanical problems to repair traffic control equipment on-site.
- Installs new parts to replace malfunctioning equipment including lamps, fuses, and relays and other related parts.
- Installs temporary electrical traffic signal control devices to accommodate various construction projects.
- Modifies timing parameters and sequencing in electrical traffic signal control devices.
- Works in the shop, troubleshooting and repairing traffic signal control equipment and cabinet components brought in for repairs, overhauls and maintenance.
- Uses testing equipment to diagnose traffic signal control equipment malfunctions and overhauls and replaces mechanical parts and electronic components including controllers, conflict monitors and video components.
- Constructs traffic cabinets for installation in the field, wiring components, adding video components and programming traffic controllers. Uses test equipment to certify accuracy of control cabinet equipment.
- Prepares work activity reports.

NOTE: The list of essential duties is not intended to be inclusive; there may be other duties that are essential to particular positions within the class.

MINIMUM QUALIFICATIONS

Education, Training, and Experience
- Successful completion of a US Department of Labor registered lineman apprenticeship training program and journeyman status; or an equivalent combination of education, training, and experience.

Licensure, Certification, or Other Qualifications
- International Municipal Sign Association (IMSA) – Level Two Certification is required.
- A valid State of Illinois driver's license is required.
• Must have the permanent use of an automobile that is properly insured, including a clause specifically insuring the City of Chicago from accident liability

WORKING CONDITIONS
• Exposure to outdoor weather conditions
• Exposure to hazardous conditions (e.g., traffic)
• Work performed in cramped or confined locations
• Work performed above or below ground level
• Work performed using scaffolds and ladders and aerial lift trucks
• Work performed at great heights with the use of safety belts

EQUIPMENT
• Hand tools (e.g., hammer, screwdriver, wrench, pliers)
• Testing and monitoring equipment (e.g., multimeters, calibration equipment, fiber optics)
• Personal protective equipment (e.g., hard hat, shoes, glasses, gloves, vest, pads)
• Safety devices or equipment (e.g., cones, barricades, metal plates, scaffolding, ropes)
• Communications equipment (e.g., two-way radio, cell phones)

PHYSICAL REQUIREMENTS
• Heavy lifting (up to 75 pounds) is required
• Ability to stand and walk for extended or continuous periods of time
• Ability to quickly bend, stretch, twist, or reach out with one’s body, arms, and/or legs
• Ability to climb staircases, ladders, and/or step stools
• Ability to operate applicable hand tools, power tools, and equipment
• Ability to tolerate heights while working

KNOWLEDGE, SKILLS, ABILITIES, AND OTHER WORK REQUIREMENTS

Knowledge
Moderate knowledge of:
• *traffic signal technology
• *traffic signal control equipment including the programming and maintenance of controllers, conflict monitors and vehicle and pedestrian detection systems
• *electronic circuit operation and fault diagnosis relating to traffic signal controllers
• *use of safety equipment and protective gear
• *applicable diagnostic test equipment and hand and power tools
• *applicable safety and code standards specific to the lineman/ traffic signal field
• work procedures used in the repair and installation of traffic control mechanical and electronic systems

Knowledge of applicable City and department policies, procedures, rules, regulations, and ordinances
Skills

- *ACTIVE LEARNING - Understand the implications of new information for both current and future problem-solving and decision-making
- *ACTIVE LISTENING - Give full attention to what other people are saying, take time to understand the points being made, ask questions as appropriate, and not interrupt at inappropriate times
- EQUIPMENT MAINTENANCE - Perform maintenance on equipment and determine when and what kind of maintenance is needed
- EQUIPMENT SELECTION - Determine the kind of tools and equipment needed to do a job
- INSTALLATION - Install equipment, machines, wiring, or programs to meet specifications
- REPAIRING - Repair machines or systems using the needed tools
- TROUBLESHOOTING - Determine causes of operating errors and decide what to do about it

Abilities

- COMPREHEND ORAL INFORMATION - Listen to and understand information and ideas presented through spoken words and sentences
- SPEAK - Communicate information and ideas in speaking so others will understand
- COMPREHEND WRITTEN INFORMATION - Read and understand information and ideas presented in writing
- REASON TO SOLVE PROBLEMS - Apply general rules to specific problems to produce answers that make sense

Other Work Requirements

- INITIATIVE - Demonstrate willingness to take on job challenges
- STAMINA - Demonstrate energy and stamina to accomplish work tasks
- DEPENDABILITY - Demonstrate reliability, responsibility, and dependability and fulfill obligations
- ATTENTION TO DETAIL - Pay careful attention to detail and thoroughness in completing work tasks

All employees of the City of Chicago must demonstrate commitment to and compliance with applicable state and federal laws, and City ordinances and rules; the City’s Ethics standards; and other City policies and procedures.

The City of Chicago will consider equivalent foreign degrees, accreditations, and credentials in evaluating qualifications.

* May be required at entry.