

CITY OF CHATTANOOGA
Classification Specification Title: Electrician

Department: Technology Services

Pay Grade: GS.09

Supervision Received From: Multiple

FLSA Status: Non-Exempt

Supervisory Responsibility For: Mgr Intelligent Systems

Established: 6/29/07

**Revision Dates: 4/2/25;
5/29/24; 12/4/23; 11/29/23;
11/17/23; 10/20/23; 1/11/23**

CLASSIFICATION SUMMARY:

Incumbents in this classification are responsible for providing specialized services for electronic traffic control devices. Duties include building, testing, repairing, programming and maintaining electronic and electrical traffic control equipment and electronic parking meters; rewiring and modifying traffic control cabinets; calibrating new equipment and assisting electricians in the field to expedite repairs in emergencies. Duties may also include troubleshooting and repairing electrical, telemetry, radio systems, fabricating, and maintaining a variety of electrical systems. Work is performed with limited supervision.

SERIES LEVEL:

The Electrician is a stand-alone position.

ESSENTIAL FUNCTIONS:

(The following duties ARE NOT intended to serve as a comprehensive list of all duties performed by all employees in this classification, only a representative summary of the primary duties and responsibilities. Incumbent(s) may not be required to perform all duties listed and may be required to perform additional, position-specific duties.)

Installs, tests, troubleshoots, repairs, removes, replaces, activates, upgrades and maintains electrical traffic control devices and other related traffic electronics equipment, including controllers, signals, school flashers, cabinets, conductors, loop detectors, guy wires, and related hardware.

Inspects intersection equipment for proper operations; checks intersection devices for correct height; inspects downed equipment to ensure power is off and removes downed equipment.

Performs routine preventative maintenance on electronic traffic control equipment which includes microprocessor-based controllers, conflict monitors, load switches, flash transfer relays, loop detectors, video detection cameras, and other related traffic control equipment.

Performs general electrical wiring; installs and maintains wiring in buildings; removes wiring; maintains wiring in manholes and maintains overhead wiring using a bucket truck.

Performs testing on conflict monitors to ensure reliability and accuracy and new equipment to ensure proper functionality.

Troubleshoots, repairs, rewires, and reconfigures new and used signal controller cabinets to meet specific intersection requirements; rewires used cabinets for new and existing locations and tests, configures and rewires contractor-installed cabinets for specific locations.

Performs various skilled tasks associated with electrical work which includes building control panels; setting steel and wooden poles and cabinets; bending and running conduit; assembling signs and signals; hanging fixtures; placing traffic safety cones; flagging and directing traffic and/or performing other related activities.

Downloads and uploads controller data to controllers.

Participates in planning, designing and fabricating custom test equipment and special needs-based intersection projects.

Reviews blueprints, diagrams, specifications, and work orders; participates in coordinating work activities to resolve problems.

Prepares and maintains a variety of records, databases, logs, drawings and other applicable documentation related to equipment repairs, inventory, intersections and/or other related items.

Uses laptop and/or mobile device for business purposes as determined by the assigned job duties and the Division Head.

May serve as a Lead to new Traffic Signal Electrician staff to include assigning and monitoring work, training staff on work methods and procedures and providing direction.

Must meet regular attendance requirements.

Must be able to maintain good interpersonal relationships with staff, co-workers, managers and citizens.

Must accomplish the essential functions of the job, with or without reasonable accommodations, in a timely manner.

Performs other duties as assigned.

This position is deemed essential during inclement weather situations, and must report to or remain at work, even when administrative closings are announced, as determined by the Department Head.

DEPARTMENT SPECIFIC DUTIES (if any):

MINIMUM QUALIFICATIONS:

Associate's Degree in Electronics or Electrical Science and two (2) years of experience or four (4) years of electrical or electronics experience that includes electrical maintenance, traffic signal installation, and traffic construction or electrical construction or any combination of equivalent experience and education.

LICENSING AND CERTIFICATIONS:

International Municipal Signal Association Level 1 Certification within six (6) months of hire.

International Municipal Signal Association Level 2 Certification within twelve (12) months of hire.

KNOWLEDGE AND SKILLS:

Knowledge of journey-level electrical principles; electronic repair and troubleshooting practices; underground utilities; traffic control equipment; telephony and other applicable communications equipment; applicable tools and equipment utilized in the trade; and work zone safety principles. Skill in using a computer and related software applications; troubleshooting and repairing component level electronic equipment; soldering; utilizing applicable tools and equipment of the trade; reading and interpreting wiring diagrams and electronic schematics. performing manual labor; coordinating work activities with other internal departments and/or external entities; installing and maintaining wiring; installing, repairing, removing, replacing, activating and maintaining electrical traffic control devices and related equipment; reading and interpreting a variety of technical blueprints, diagrams and specifications; performing journey-level electrical work; performing preventative maintenance activities; and setting up applicable work zones. Communication and interpersonal skills as applied to interaction with coworkers, supervisor, and the general public, sufficient to exchange or convey information and to receive work direction.

PHYSICAL DEMANDS:

Positions in this class typically require climbing, balancing, stooping, kneeling, crouching, reaching, standing, walking, pushing, pulling, lifting, fingering, grasping, talking, hearing, seeing and repetitive motions.

WORK ENVIRONMENT:

Medium Work: Exerting up-to 50 pounds of force occasionally and/or up-to 20 pounds of force frequently and/or up-to 10 pounds of force constantly to move objects. Incumbents may be subjected to working in high and precarious places, moving mechanical parts, electrical currents, fumes, dust, traffic hazards, and extreme temperatures.

SPECIAL REQUIREMENTS:

Safety Sensitive: Y

Department of Transportation - CDL: N

Child Sensitive: N

The City of Chattanooga, Tennessee 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 encourage both prospective and current employees to discuss potential accommodations with the employer.