



City of Phoenix

Electrician

Job Code:	74120	Job Function:	Trades
Salary Plan:	004	Grade:	255
FLSA:	Nonexempt	Labor Assign:	Unit 2 AFSCME 2384
Benefit Cat:	002	EEO-4:	Skilled Craft
SOC:	47-2111	Last Revision:	November 2024

The listing of duties and responsibilities shall not be held to exclude other duties not specifically mentioned that are of similar kind or level of difficulty as the essential functions of the classification. They are intended to describe the general nature and level of work being performed by individuals assigned to positions in this classification.

DISTINGUISHING FEATURES OF THE CLASS:

The fundamental reason this classification exists is to perform journeyman skilled electrical work in the installation, alteration, maintenance, and repair of both low, medium, and high voltage electrical systems, equipment, and fixtures in accordance with standard practices of the electrical trade. An Electrician at this level has a level of competence working with equipment in the electrical utility, commercial, mining or industrial industry. An Electrician may be assigned to serve as an Electrician at the Aviation, Convention Center, Public Works, Street Transportation or Water Services Department.

SUPERVISION RECEIVED/GIVEN:

Electricians work independently. Supervision is received from a Lead Electrician, Electrical Maintenance Crew Chief or other supervisor with inspection. This classification is not supervisory but may be expected to perform leadership activities as required.

ESSENTIAL FUNCTIONS:

- Depending on functional area, installs, alters, maintains, diagnoses and repairs electrical wiring systems and equipment, including motors, transformers, pumps, lighting systems, signal systems, traffic signal systems, airfield lighting, air distribution systems, substations and appliances
- Installs, maintains and repairs electrical wiring and equipment up to 12,470 volts
- Cuts, bends, and fits conduit into trenches and installs new electrical wire
- Tests circuits and timing to ensure proper operation
- Performs preventative maintenance, inspects and repairs electrical equipment and wiring and monitors a preventative maintenance program
- Prepares work activity, inventory and data reports
- Designs functional electric circuitry for electrical systems
- Operates earth moving equipment, aerial equipment, and pneumatic equipment in the installation and repair of electrical equipment
- Performs as a crew leader and ensures timely job progress by assigning work of available personnel on the job site and scheduling equipment use



City of Phoenix

- Provides on-the-job training for apprentices, junior or subordinate crew members in skills of the electrical trade, City policy, and requirements of specific job tasks
- Responds to citizen and customer inquiries or complaints

REQUIRED KNOWLEDGE, SKILLS AND ABILITIES:

Knowledge of:

- Electrical construction and maintenance, including installation of all sizes of electrical conduit, cables, wires, switches, automatic starting equipment, and pole line construction
- Occupational hazards and necessary safety precautions
- National Electric Code, municipal, county, state and federal codes and regulations

Ability to:

- Distinguish between the full range of colors in the color spectrum to work with electrical wires
- Use graphic instructions such as blueprints, schematic drawings, layouts, or other visual aids
- Estimate labor or material costs/amounts from blueprints or work plans
- Make mathematical computations
- Exercise independent thought and action within the scope of specific assignments
- Comprehend and make inferences from written materials
- Measure distances with a tape measure or other measuring device
- Make precise arm-hand positioning movements (i.e., operates an electric hand drill)
- Lift arms above shoulder level to work in ceiling areas, on light fixtures, or on traffic signals
- Work in small, cramped areas such as ceiling crawl spaces, equipment enclosures, closets, etcetera
- Climb ladders or steps to reach work areas
- Work at heights greater than ten feet
- Remain in a standing position for extended periods of time
- Work in a variety of weather conditions with exposure to inclement weather and extreme heat
- Move heavy objects (50 pounds or more) long distances (more than 20 feet)
- Travel across rough, uneven, or rocky surfaces
- Use and distinguish information from thermal or infrared imaging equipment
- Wear appropriate PPE, including 40 calorie arc flash suits when needed
- Express ideas on technical problems clearly and concisely orally and in writing in the English language
- Work cooperatively with other City employees, building occupants, and the public
- Communicate orally in the English language with customers, clients, or the public in face-to-face one-on-one settings, or using a telephone
- Observe, monitor, or compare data to determine compliance with prescribed operating or safety standards
- Make decisions and coordinate work based on information given by the customer
- Work safely without presenting a direct threat to self or others

Additional Requirements:



City of Phoenix

- Some positions will require the performance of other essential and marginal functions depending upon work location, assignment or shift
- Some positions require working irregular hours, shifts, weekends, and holidays
- Some positions require the use of personal or City vehicles on City business. Individuals must be physically capable of operating the vehicles safely, possess a valid driver's license and have an acceptable driving record
- In addition, individuals may be required to pass an Arizona Department of Transportation physical exam and possess the appropriate commercial driver's license (C.D.L.). Pre-employment drug testing is required for C.D.L. positions. Employees in C.D.L. positions will be subject to unannounced alcohol and drug testing as a condition of continued employment
- Use of a personal vehicle for City business will be prohibited if the employee does not have personal insurance coverage

ACCEPTABLE EXPERIENCE AND TRAINING:

Completion of a recognized four-year electrical apprenticeship program, or equivalent training, or three years of experience as a skilled electrician. Other combinations of experience and education that meet the minimum requirements may be substituted.