

**MONTGOMERY COUNTY GOVERNMENT
ROCKVILLE, MARYLAND
CLASS SPECIFICATION**

**Code No. 005072
Grade 19**

ELECTRICIAN II

DEFINITION OF CLASS:

This is lead level skilled work involving the installation, modification, repair, troubleshooting, loading and testing of new and existing electrical lines, circuits, systems, fixtures, controls, and equipment. Contacts generally are with shop employees within and outside the electrician trade, but on occasion may include contractors or agency personnel responsible for facility maintenance for the purpose of providing and receiving instructions and information. An incumbent offers limited direct service or assistance to the public.

An employee in this class is responsible for leading and performing skilled and hazardous electrical work using both hand and power tools, as well as other types of equipment associated with the electrical trade. Work assignments typically emanate from work orders and are conducted in a self directed manner. As a lead worker, employees in this class plan, coordinate, oversee and participate in the work of an electrician crew and exercise independent judgment within established guidelines. While guidelines are normally available, employees must utilize initiative and resourcefulness to address atypical situations which require the adaptation of different methods and/or procedures. Completed work is typically reviewed for adequacy and technical soundness. The complexity of the work involves analysis of work to be done and selection of the safest and most cost-effective method of construction or repair based upon training and prior experience. The work effort contributes to the safe and effective operation of electrical systems in County facilities and the safety and comfort of facility users. In addition to exposure to high voltage systems and energized circuits, the work entails performing tasks from heights and confined spaces, which necessitate the use of insulated protective gear, ladders, scaffolding, platforms and mobile aerial equipment. The work activities require moderate physical effort including standing, stooping, bending, kneeling, climbing, pushing and pulling as well as working in tiring and uncomfortable positions. Work is performed both indoors and outside, as well as in a shop and in a broad variety County Government facilities which entails exposure to dirty, dusty and/or greasy conditions, as well as to areas utilized for public health services and protective custody. An employee is required to respond to after-hours emergency service calls and may be placed on stand-by duty during severe weather or other urgent conditions.

EXAMPLES OF DUTIES: (Illustrative Only)

- Leads and participates in the work of an electrician crew; provides instruction to and evaluates journey level and apprentice electricians.
- Plans and lays out crew work to include the routing, placement, type, size, gauge, balance, load, continuity, and proper and safe operation of electrical lines, circuits, systems, equipment and controls.
- Prepares estimates of materials, time and labor necessary to complete jobs.
- Maintains records of work completed.
- Installs, modifies, repairs, loads and tests systems, circuits and devices.

- Troubleshoots and maintains emergency and stand-by systems, generators, uninterruptible power systems and fire alarms.
- Determines, arranges, places and routes distribution panels, boxes, circuits, fittings, connections and controls.
- Determines and installs wiring, conduit, fixtures, transformers and other electrical devices in the size, type and arrangement needed for proper and safe operation of electrical systems, circuits and equipment.
- Performs demolition work associated with either the installation, modification, repair or removal of electrical systems, equipment and related components.
- Conducts routine operational checks and preventive maintenance tasks, noting and correcting malfunctions. Recommends replacement of obsolete systems/equipment.
- Requisitions supplies and equipment.
- Drives to and from work site.
- Performs related duties as required.

KNOWLEDGE, SKILLS AND ABILITIES:

- Considerable knowledge of the makeup, operation and installation of a variety of electrical systems, circuits, equipment and controls common to Montgomery County Government facilities and structures.
- Considerable knowledge of the various gauges, sizes and types of wire, conduit, couplings, fittings, relays, boxes, circuit breakers and other electrical devices, and the ability to arrange and install them in ways that insure proper and safe operation of systems, circuits and equipment worked on.
- Considerable knowledge of the National Electrical Code and revisions and the local building and fire codes related to the work performed within the electrician trade.
Considerable knowledge of the occupational hazards and safety precautions of the electrician trade.
- Skill in the use of hand tools and test equipment such as wire cutters and strippers, drills, soldering irons, screwdrivers, test meters, test lamps, voltmeters, ammeters, watt meters and ohmmeters.
- Ability to direct and participate in the work of an electrician crew.
- Ability to rig and handle all materials necessary to accomplish a job assignment.
- Ability to work stand by shifts or to respond to after-hours emergency service calls.
- Ability to work overhead or in stretched, cramped, and awkward or tiring and uncomfortable positions.
- Ability to wear and use personal protective clothing and equipment for protection from shock hazard when exposed to energized equipment or when exposed to dust, fumes and other irritants to eyes, nose, ears and respiratory system.
- Ability to conduct failure analysis and to modify systems and equipment.
- Ability to work from electrical drawings, schematics, specifications, sketches, and work orders and prepare material lists and specifications.
- Ability to prepare and maintain simple records.
- Ability to deal tactfully, effectively and equitably with people.
- Applicant must pass a County administered test of recognition of colors commonly used in the electrical trade.

MINIMUM QUALIFICATIONS:

Experience: Three (3) years of experience as a journey level electrician.

Education: Graduation from high school or High School Certificate of completion recognized in the State of Maryland.

Equivalency: An equivalent combination of education and experience may be substituted.

Physical Ability:

- Ability to occasionally carry items that weigh up to fifty (50) pounds and infrequently lift items that weigh over 50 pounds.
- Ability to perform work inside and outside year round, where it may be necessary to work from scaffolding, high ladders, roofs or mobile aerial equipment.

LICENSE:

- Possession of a journey level electrician's license issued by the Montgomery County Board of Electrical Examiners.
- Possession and maintenance at all times of a valid Class "C" (or equivalent) driver's license from the applicant's state of residence.

PROBATIONARY PERIOD:

Individuals appointed to this class will be required to serve a probationary period of six (6) months, during which time performance will be carefully evaluated. Continuation in this class will be contingent upon successful completion of the probationary period.

MEDICAL EXAM PROTOCOL: Core II Exam.

Class Established: September 1963

Revised: April 1968

November 1970

May 1971

July 1974

December 1984

March 1988

Classification Study: May 1991 (M)

December 2001

Classification Study: September, 2002(M)

December 2008

April 2010

August 2013

Medical Protocol revised December 2008