

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

**Code No. 004115
Grade 23**

SUPERVISOR, TRANSPORTATION SYSTEMS TECHNICAL CENTER

DEFINITION OF CLASS:

This is skilled technical and first level supervisory work involving the County wide construction, modification, installation, testing, maintenance and repair of traffic control, traffic monitoring and traveler information equipment, devices, and sub-systems supporting the County's Advanced Transportation Management System (ATMS). Contacts include unit employees to assign and evaluate work; parallel units and employees from other government agencies to plan and coordinate the work of the unit; and private contractors and equipment vendors to coordinate purchases, installations and use of equipment. This class of work may entail some public service/assistance, but it is incidental to the primary focus of the work performed.

An employee in this class is responsible for planning, coordinating and scheduling the safe installation, repair and maintenance of the equipment, devices and subsystems of the Montgomery County transportation management system, including traffic signal devices, fiber optic cable plant and related components including base and broad band video equipment, video traffic surveillance cameras, traveler advisory radio system, variable message signs, lane control and channelization devices, and related telephone and data communication equipment. Work is performed under general supervision of a traffic engineer who provides the employee with a schedule of projects and completion dates and general assignments for nonroutine work; the employee is expected to plan and coordinate the work of unit subordinates in such a manner as to meet the prescribed work objectives within established schedules. While the work of the unit is reviewed and evaluated for compliance with instructions and schedules, normally the means by which the work is accomplished are not reviewed in detail. Guidelines are available in the form of engineering plans, manufacturers' technical manuals, national and state codes and other references to which the employee refers for technical assistance.

The employee exercises independent judgment and ingenuity, under the general guidance of the engineering staff; to modify and adapt standard technical procedures and practices related to equipment use and installation in order to accomplish the unique requirements of the County's transportation management system. The complexity of the work is marked by the technical knowledge required of the employee to be proficient in the field of electronics, the sophistication of the traffic control and monitoring equipment and devices implemented in the County's ATMS system, the potential for increased technological development and expanded communication capabilities, and the challenge of managing a unit consisting of a diverse staff of construction and technical employees. Impact of the work is significant in that the employee is responsible for overseeing the work activities of the unit in planning, coordinating and scheduling the systems supporting the ATMS. Supervision of installation, maintenance and repair of traffic control, monitoring and other communication equipment occurs primarily in a clean shop environment with occasional field trips to projects at outdoor locations. Strict observance of safety precautions and procedures is required at such times that the employee is working around electrical voltage, high powered equipment and fiber optic materials and equipment. An

employee in this class must possess good strength and agility in order to occasionally lift objects weighing twenty (20) to fifty (50) pounds.

EXAMPLES OF DUTIES: (Illustrative Only)

- Supervises construction, modification, installation, testing, maintenance and field and bench repair of traffic control, traffic monitoring, and traveler information equipment, systems and devices supporting the County's Advanced Transportation Management System (ATMS).
- Prepares, implements, and monitors the master work schedule to enable the completion of routine work, including installation, repair and maintenance; coordinates adjustments to the schedule in order to accommodate unplanned project demands and emergencies.
- Supervises construction, modification, installation, testing, overhaul, preventive maintenance, and field and bench repair of a variety of complex computer-based solid state, digital, electronic, electromechanical and microprocessor-based traffic control equipment involving computer logic, solid state modular circuitry, and related telephone and data communications.
- Supervises the installation, maintenance and repair of the County's TARS (Traffic Advisory Radio System) for AM broadcast.
- Supervises the maintenance and repair of the County's fiber optic cable plant and those components of the County's fiber optic data transmission system which support the ATMS.
- Supervises the installation, maintenance and repair of overhead messenger wire, overhead electrical cable, underground communication cable, overhead lane control, overhead signs, traffic signal heads, school flasher assemblies, vehicle detectors, traffic signal poles, pedestrian signals, push buttons, electrical services, and other related traffic control apparatus.
- Designs and customizes equipment, circuits, logic packages, software and computer programs to solve identified problems and needs.
- Coordinates Transportation System Technical Center work efforts with the contractors who install traffic control equipment as well as those contractors who construct, repair, and test special traffic control equipment, ensuring that accurate records are maintained of work in progress and completed.
- Assists in preparation of specifications for new equipment, recommends the purchase of operating and test equipment, and supervises the requisitioning and inventorying of new and replacement parts, equipment and tools.
- Provides quality assurance by inspecting traffic control installations for proper operation, timing and compliance with engineering drawings and applicable standards.
- Meets with County and other governmental agency personnel, private contractor representatives, representatives of constituent groups, and the public to discuss and/or resolve problems, needs and disputes.
- Provides electrical and electronic technical expertise needed to resolve systems and equipment problems, in part, through continuing education and attendance at technical conferences.
- Supervises personnel matters within the Transportation Systems Technical Center, including the hiring process (recruitment and testing of candidates), training (on new equipment, on improved work methods), employee evaluation and performance plans, leave use, and recommendations regarding awards and disciplinary actions.
- Supervises maintenance of appropriate records, including project time and materials expended, work accomplished, malfunction reports, loop detector reports, "as built" reports, maintenance reports, and stock and inventory reports.
- Oversees the safety program of the Transportation Systems Technical Center, including compliance with OSHA and MOSHA regulations, hazardous materials handling and listing, alcohol and drug

testing, and compliance with federal and state mandates regarding heavy equipment, training and maintenance of required records, such as accident reports and vehicle maintenance.

- Performs related duties as required.

KNOWLEDGE, SKILLS AND ABILITIES:

- Thorough knowledge of electronic and data communication principles as applied to the installation, maintenance and repair of a variety of ATMS equipment and related devices (e.g., traffic control signals, video traffic surveillance cameras, AM radio transmitters, microwave equipment, and fiber optic cable equipment).
- Thorough knowledge of the standard tools, testing devices, materials, methods and practices of the electronic and electrical trades as related to construction, maintenance and repair of traffic control equipment.
- Thorough knowledge of the functions and theory of telemetry equipment as applied to the interconnection of traffic control systems.
- Thorough knowledge of data communication principles including interfacing, protocols, high speed applications and networking.
- Thorough knowledge of broadband and baseband video principles.
- Thorough knowledge of microwave and AM transmission principles.
- Thorough knowledge of audio communication transmission principles.
- Thorough knowledge of the National Electrical Code (NEC) and the Manual of Uniform Traffic Control Devices.
- Ability to plan, modify and implement various combinations of equipment, systems, and communication pathways in order to meet the equipment support and data transmission needs of a technologically advanced transportation management system.
- Ability to select, to test, and to install equipment, devices, and subsystems supporting new technological advances within an advanced transportation management system.
- Ability to read and interpret complex manufacturer's specifications related to use and installation of equipment and devices as well as intersection drawings and diagrams.
- Ability to supervise and train several crews of Transportation Systems Technicians, Employees.
- Ability to establish and maintain effective working relationships with County officials and employees, contractors and equipment manufacturer representatives.
- Must be free from color blindness.
- Ability to attend meetings and/or perform assignments at locations outside the office.

MINIMUM QUALIFICATIONS:

Experience: Five (5) years of journey level experience involving the construction, installation, modification, maintenance and repair of electronic/communications equipment and systems including: electromechanical and electronic traffic control equipment, fiber optic and data communication equipment, video and audio equipment.

Education: Possession of an Associate of Arts Degree from an accredited college or university in electronics or related field.

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

Physical Abilities: Ability to independently lift, move, and pull heavy pieces of equipment and tools occasionally weighing up to fifty (50) pounds.

LICENSE:

- 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 twelve (12) months. Individuals promoted to this class will be required to serve a probationary period of six (6) months. During the probationary period, performance will be carefully evaluated. Continuation in this class will be contingent upon successful completion of the probationary period.

MEDICAL EXAM PROTOCOL: Core Exam with a Drug/Alcohol Screen.

Class Established: July 1962

Revised: April 1968

November 1970

December 1973

June 1980

August 1985

December 1985

Classification Study: May 1991 (M)

Classification Study: June 1998 (M)

July 2007

March 2011

August 2013

March 2014

Formerly Titled: “Supervisor, Traffic Signal Unit”