

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

**Code No. 004458  
Grade 19**

**TRANSIT INFORMATION SYSTEMS TECHNICIAN**

**DEFINITION OF CLASS:**

This is skilled work having two main roles: internal consultant in team-based processes to specify, acquire, install and operate leading-edge transit information/communication systems, and hands on technician. In the internal consultant role, the employees provide technical and practical input for the development of specifications for new/improved bus based information and communication systems. In the technician role, the employees test, install, maintain, and repair complex transit information/communication systems having integrated electro-mechanical components; they also train others on and oversee their use. Personal contacts are both internal and external, ranging from co-workers in the Division of Transit Services, such as mechanics, Motor Pool Attendants and Bus Operators on routine electro-mechanical problems and system use, to vendors about needed parts and contractors and representatives of other jurisdictions about specifications for the acquisition of leading-edge systems and improvements. Additional contacts include Washington Metropolitan Area Transit Authority (WMATA) Counting Facility staff, about retrieving fare media, and members of the Regional Fare Group including staff of WMATA and the Maryland Transit Administration (MTA) about solving interagency problems. Direct public service/assistance is rare; on very infrequent basis, employees in this class may provide information about transit services and routes and other information to the general public.

Employees in this class work without immediate technical supervision and are required to plan the sequence of actions and independently select the appropriate methods or procedures to complete the work in establishing and then following a preventive maintenance program for, and repairing (in the shop and the field) as required, the SmartCard system and subsystems. On team-based projects, they work with others in a joint effort and sometimes conduct special studies. Guidelines for performing the work exist, but need supplementation or alteration in some instances by the incumbents. In other instances, the incumbents, as the "field managers" for new/modified systems, develop or modify the guides. Employees use general electro-mechanical principles and equipment schematics, wiring diagrams and manufacturer's manuals and technical bulletins to help troubleshoot malfunctions and repair equipment. The complexity of this class of work is derived from working with complex, integrated systems which requires an employee to isolate hardware and software problems amid a number of interrelated electrical, electronic and mechanical variables. Work is further complicated by the application of close tolerances, working within confined, small spaces, and often on in-service buses which requires rapid diagnosis and repair. The work affects the accuracy and effectiveness of important Countywide transit information and communication systems and the utility of inter-jurisdictional systems. Properly functioning equipment also ensures security of revenue collected. The work of this class is performed in a shop, on in-service buses, in the bus service lane, outdoors in the bus staging area, and occasionally atop or under buses; the employees are regularly exposed to moderate levels of noise, vibrations, dust, fumes and grease as well as cold, heat, rain and snow at times. Some risk of physical injury is present due to the requirement for an employee to work with energized systems, hand

and power tools, lubricants and solvents, etc. The physical demands of this class require a combination of standing and walking; bending, crouching and positioning self in cramped quarters; and moving and maneuvering of transit fare boxes and component parts, bags of coins and fare media plus and the use of hand-held tools to make repairs and adjustments.

**EXAMPLES OF DUTIES: (Illustrative Only)**

- Performs bench and field repairs to the component level on a networked SmartCard system digital video system and Wi-Fi support.
- Oversees daily operations of SmartCard system, including the resolution of system hardware, software and communication problems. Develops and implements training plans to ensure Bus Operators and other employees are trained in system use.
- Oversees the daily compilation, retrieval and storage of the SmartCard field database. Prepares database reports. Queries database and assists in analysis of data for all electronic devices.
- Maintains the preventive maintenance, repair and spare parts inventory database.
- Provides technical and practical input on the specification, acquisition and installation of hardware and software and any associated facility modifications, telecommunications or radio issues. Provides liaison between department's divisions, management and contractors on the SmartCard system.
- Makes recommendations for system improvements and other leading-edge systems and sub-systems.
- Develops, recommends and provides supporting documentation for the department's budget. Manages a budget to ensure adequate funding is available for supplies and parts.
- Assists office staff in the operation of personal computers and applications software.
- Serves as fleet coordinator for staff vehicles.
- Drives a passenger bus, with air brakes, during training, demonstrations and operational emergencies.
- Performs related duties as required.

**KNOWLEDGE, SKILLS AND ABILITIES:**

- Knowledge of the theories and principles of electricity, electronics and microprocessor systems hardware and skill in the use of troubleshooting techniques (reasoning in technical problem solving) to install, maintain and repair modern voice and data transmission systems and varied communication equipment and digital video recording equipment.
- Knowledge of complex, networked information systems and operating systems, including an understanding of desktop applications, database management, help desk operations and troubleshooting, LAN support, departmental programs and their applications in order to assure continual, uninterrupted operation of SmartCard revenue computer systems and equipment that has electronic, electrical, and mechanical components to help specify, acquire, install, maintain and repair leading-edge transit information and communication systems.
- Knowledge of FCC regulations regarding data transmissions, modifications to equipment, etc.
- Knowledge of regional and County transit programs, policies, priorities and procedures to understand and respond to inter jurisdictional and County transit information/communication system issues.
- Knowledge of the Ride-On system to effectively plan and carry out maintenance and repairs.
- Skill in effective communication, orally and in writing, to exchange technical and practical information.

- Skill in the use of technical guidelines and the tools of the trade to install, maintain and repair equipment.
- Skill in the use of hand and power tools such as wire cutters and strippers, drills, screwdrivers and wrenches, ratchets and sockets, micrometers, and scales in order to perform electronic and electro-mechanical duties.
- Skill in effective communication, orally and in writing, to exchange technical and practical information.
- Skill in interpreting and applying complex schematics, wiring diagrams, operating manuals, manufacturer's maintenance instructions, and troubleshooting guidelines including system analysis.
- Interpersonal skills to interact with personal contacts in an effective, business-like manner.
- Ability and willingness to work variable shifts, including weekends, holidays and occasional overtime.
- Ability to independently move and use equipment weighing up to 100 pounds and apply heavier forces at times.
- Ability to distinguish color-coded wiring and other color-coded objects.
- Ability to operate a public transit bus.

**MINIMUM QUALIFICATIONS:**

**Experience:** Three (3) years of journey level experience in the troubleshooting and installation of microprocessor based electronic systems, revenue handling equipment or communication systems.

**Education:** An Associate of Arts Degree in electronics technology or a related field.

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

**LICENSE:**

**At the time of employment application:**

- Possession and maintenance at all times of a valid Class "C" (or equivalent) driver's license from the applicant's state of residence.

**Upon completion of bus driver training by Montgomery County:**

- Possession and maintenance at all times of a valid Class "B" (or equivalent) Commercial Driver's License (CDL), with air brakes and passenger endorsements; from the employee's state of residence.

**PROBATIONARY PERIOD:**

Individuals appointed to a position in 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 Exam.

**Class Established:** April 1981

**Revised:** August 1985

**Classification Study:** August 1992 (M)

**Classification Study:** October 2000 (M)

**Classification Study:** December 2006 (M)

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