

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

**Code No. 204455
Grade 20**

SENIOR TRANSIT INFORMATION SYSTEMS TECHNICIAN

DEFINITION OF CLASS:

This is lead level, highly skilled, advanced work involving internal consulting in team-based processes to specify, acquire, install and operate leading-edge transit information/communication systems. The class includes hands-on technician work. The employee in this single-position class performs as lead trainer and senior technical official for the division in the afore-mentioned area of expertise. The employee provides interpretation, consultation advice, bid specifications, maintenance and usage expertise in transit information and communication systems. The employee works closely with the Electronic Systems Manager and other Division managers in the role of lead technician. In the internal consultant role, the employee provides advanced technical and practical input for the development of specifications for new/improved bus-based information and communication systems. In the technician role, the employee performs as lead trainer and quality assurance overseer for the testing, maintenance and repair of complex transit information/communication systems having integrated electro-mechanical components. The employee provides training oversight of other technicians as the skilled advanced trainer, and leads the activities of other technicians in the Unit. Personal contacts are both internal and external, ranging from co-workers in the Division; e.g., mechanic technicians, motor pool attendants and bus operators, to vendors, 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) staff, members of the Regional Fare Group and the Maryland Transit Administration (MTA) about solving interagency problems. Direct public service/assistance is rare; on a very infrequent basis, the employee may provide transit-related information to the general public.

The employee in this class works without immediate technical supervision and is 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, the employee leads others in a joint effort and sometimes leads and/or conducts special studies. Guidelines for performing the work exist, but need supplementation or alteration in some instances by the employee. In other instances, the employee, as overseer of "field managers" for new/modified systems, oversees development or modification of the guides. The employee leads and teaches others in the complex electro-mechanical principles and equipment schematics, wiring diagrams, manufacturers' manuals and technical bulletins to oversee troubleshooting malfunctions and the repair of equipment. This class is distinguished from the journey level Transit Information Systems Technician class by the nature and extent of advanced technical support provided by an incumbent this class, as well as performing team lead functions on a regularly recurring basis. Complexity is characterized by the advanced level technical skills required of an employee in this class to integrate all transit information systems within the Advanced Transportation Management System (ATMS). The work requires advanced technical skill and resourcefulness to determine appropriate modification of standard procedures. Work affects the accuracy and effectiveness of important County-wide transit information

and communication systems and the utility of inter-jurisdictional systems. Properly functioning electro-mechanical equipment also ensures the security of revenue collected. An employee in this class has oversight of the transfer of knowledge to journey level technicians. The employee also performs inspection of journey level technicians' work for quality assurance. The work is performed in a shop, on in-service buses, in bus service lanes, outdoors in the bus staging area, and occasionally atop or under buses. The employee is regularly exposed to noise, vibration, 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 the employee to work on energized systems, hand and power tools, lubricants and solvents, etc. Physical demands of this class include standing and walking; bending, crouching, positioning in cramped quarters; and moving and maneuvering of transit fare boxes and component parts, bags of coins and fare media.

EXAMPLES OF DUTIES: (Illustrative Only)

- Performs advanced level work and provides team leader oversight in daily operations of the SmartCard system, including the resolution of system hardware, software and communications problems. Oversees development and implementation of training plans to ensure division employees are trained in system use.
- Provides input to the Electronics Systems Manager in such areas as training needs of Unit technicians, performance appraisal, etc.
- Provides advanced level technical and practical input on required specifications, acquisition and installation of hardware and software and any associated facility modifications, telecommunications or radio issues. Provides advanced technical liaison support between department's divisions, management and contractors on the SmartCard system.
- Performs advanced bench and field repairs to the component level on a networked SmartCard system digital video system and Wi-Fi support.
- Provides training in daily compilation, retrieval and storage of the Smart Card field database.
- Provides training and oversight in the preparation of database reports. Queries database and assists in analysis of data for all electronic devices.
- Determines the cause of transit information system failure and provides training in preventive maintenance, repair, and spare parts inventory database.
- Provides advanced level technical advice for system improvement recommendations and other leading-edge systems and subsystems.
- Provides advanced level technical skills and resourcefulness for appropriate modifications of standard procedures.
- Provides technical input and 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.
- Drives a passenger bus, with air brakes, during training, demonstrations and operational emergencies.
- Performs related duties as required.

KNOWLEDGE, SKILLS AND ABILITIES:

- Thorough 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, varied communication equipment, and digital video recording equipment.

- Thorough 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.
- Thorough knowledge of FCC regulations regarding data transmissions, modifications to equipment, etc.
- Thorough knowledge of County and regional transit programs, policies, priorities and procedures to understand and respond to inter-jurisdictional and County transit information/communications system issues.
- Thorough 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 technological guidelines and the tools of the trade to install, maintain and repair equipment and to perform electronic and electro-mechanical duties.
- Skill in interpreting and applying complex schematics, wiring diagrams, operating manuals, manufacturers' maintenance instructions, and troubleshooting guidelines including system analysis.
- Interpersonal skills to interact with personal contacts in an effective, business-like manner.
- Ability to independently move and use equipment weighing up to one hundred (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: Five (5) years of creditable 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 the 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. Individuals promoted to a position in this class will be required to serve a 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, 2015.