

County of Henrico Job Classification

Traffic Signal Specialist II



General Summary of Classification:

Installs, maintains, programs, troubleshoots, and repairs traffic control and traffic detection devices, wired and wireless communications, and related components and supporting equipment Countywide. Serves as a lead worker and assists with signal plan preparation and updates. Performs other duties as assigned.

Examples of Primary Tasks, Duties and Responsibilities (TDR):

This is the second level of an approved career development plan (CDP).

- Installs and programs flashing yellow arrow signals and related components.
- Wires and tests controller cabinets (TS-1/TS-2) for proper functioning; troubleshoots and corrects wiring issues.
- Assists in preparing new traffic signal plans and updating existing plans to reflect field changes.
- Performs preventive maintenance and annual inspections on signalized intersections; ensures all devices and equipment are functioning properly.
- Tests, troubleshoots, and diagnoses traffic control systems using specialized tools and programs; makes necessary adjustments and repairs.
- Installs, programs, and troubleshoots communication issues for advanced traffic management systems involving wireless communication, fiber optic lines, Layer 2/Layer 3 devices, Ethernet ports, and line-of-sight antennae.
- Responds to complaints and emergency calls regarding signal malfunctions during regular hours and on-call periods.
- Inspects contractor signal installation work for compliance with design plans and applicable standards; documents activities and approves payment when compliant.
- Safely operates and maintains diagnostic equipment, hand tools, and County vehicles including bucket trucks and crash-cushion trucks.
- Serves as lead worker, assisting with training other technicians and coordinating work with other departments, contractors, and utility providers.
- Performs other duties as assigned.

Knowledge, Skills, and Abilities (KSA) Typically Required:

- **Occupation-specific:** Considerable knowledge of computerized traffic control systems, electronic theory, programmable electronics, wireless communication equipment; ability to read and interpret wiring diagrams and blueprints; thorough understanding of work-zone traffic control and safety precautions.
- **Technical:** Ability to use diagnostic tools and computer systems for troubleshooting and recordkeeping; ability to configure, test, and maintain field communication networks.

- **Interpersonal, Communication and Customer Service:** Strong communication skills; ability to maintain effective relationships with staff, contractors, vendors, and the public.
- **Decision-making and Authority:** Ability to resolve moderately complex technical issues independently and ensure compliance with standards.
- **Leadership:** Lead worker; assists with training and coordination.
- **Environment:** Outdoors under adverse weather and traffic conditions; elevated work sites as needed.
- **Physical:** Physical ability for heavy lifting, bending, stooping, climbing, and working in adverse conditions; consistent use of required PPE.

Minimum Education and Experience:

- **Education:** Graduation from high school or GED with relevant coursework or other training in electronics or programming.
- **Experience:** Four (4) years of relevant electrical or electronic maintenance experience, including at least two (2) years working on traffic signal equipment.
- **OR:** Any equivalent combination of experience and training which provides the necessary Knowledge, Skills, and Abilities.

Other Requirements (License, Certifications, Training, etc.):

- Criminal history record check and fingerprinting of all employees in authorized and hourly safety-sensitive positions.
- Successful completion of required NIMS training.
- Valid driver's license with a safe driving record.
- Valid Class B CDL with endorsements necessary to operate County equipment and vehicles.
- Valid VDOT Flagger Certification.
- Forklift Certification; Basic Work Zone Certification.

Job Code: G.G.K.0008

Date of Last Revision: 18-Feb-2026

This is a generalized class specification and not a job description. Actual duties, qualifications, and requirements vary by position. For more information, contact the Henrico County Department of Human Resources.