

County of Henrico Job Classification

Traffic Signal Specialist III



General Summary of Classification:

Provides advanced technical leadership for the installation, programming, optimization, maintenance, and repair of traffic signal systems and field communications Countywide. Oversees complex field implementations, leads small projects, mentors staff, and ensures compliance with applicable standards. Performs other duties as assigned.

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

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

- Leads complex signal work including cabinet builds and controller programming across platforms (NEMA TS-1/TS-2, ATC) and integration with central systems.
- Develops, reviews, and updates traffic signal plans and timing sheets; implements corridor progression and fine-tuning using central software and field observation.
- Diagnoses and resolves advanced faults involving detection technologies (video, radar, loop), phase calls, preemption, pedestrian systems, and communications latency.
- Designs and executes field integration tests and acceptance checks for new installations, upgrades, and vendor-provided systems.
- Configures, tests, and maintains field networks (fiber/wireless), switches/routers, cabinet network devices, and secure remote access per County standards.
- Coordinates construction sequencing and traffic control with internal teams, contractors, utilities, and external agencies; documents work and maintains accurate records.
- Trains and mentors Specialists I/II on troubleshooting methods, communication networks, and cabinet wiring standards; provides technical guidance during on-call response.
- Leads small projects including material estimating, inventory staging, scheduling, and site acceptance.
- Performs other duties as assigned.

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

- **Occupation-specific:** Thorough knowledge of traffic signal operations, detection systems, and controller programming; strong understanding of standards and specifications applicable to signal work.
- **Technical:** Proficiency with central signal software, field diagnostics, IP networking for cabinets, and advanced troubleshooting methods; ability to develop timing plans and evaluate performance.
- **Interpersonal, Communication and Customer Service:** Strong facilitation and mentoring skills; ability to convey technical information clearly to diverse stakeholders.
- **Decision-making and Authority:** Ability to lead technical decisions in the field and make cost-effective determinations within standards.

- **Leadership:** Lead worker/project lead; trains and mentors staff; may direct day-to-day activities at job sites.
- **Environment:** Shop and field work in adverse weather and traffic; frequent elevated work and confined-space access as required.
- **Physical:** Physical ability for lifting, climbing, and sustained fieldwork; consistent use of required PPE.

Minimum Education and Experience:

- **Education:** Graduation from high school or GED; associate degree or formal technical certification in electronics/electrical or a related field preferred.
- **Experience:** Six (6) years of progressively responsible experience in traffic signal installation and maintenance, including at least two (2) years at Traffic Signal Specialist II.
- **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 (Class A preferred) with endorsements necessary to operate County equipment and vehicles.
- Valid VDOT Flagger Certification.
- Forklift Certification; Intermediate Work Zone Certification.

Job Code: G.G.K.0009

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.