

**CITY OF CHATTANOOGA**  
**Classification Specification Title: Civil Engineer 2**

**Department: Public Works**

**Pay Grade: GS.13**

**Supervision Received From: Multiple**

**FLSA Status: Exempt**

**Supervisory Responsibility For: None**

**Established: 6/29/07**

**Revision Dates: 4/1/25;  
2/24/25; 8/27/24; 4/05/24;  
10/20/23; 1/11/23**

**CLASSIFICATION SUMMARY:**

Incumbents in this classification are responsible for the design and coordination of transportation infrastructure projects.

**SERIES LEVEL:**

The Civil Engineer 2 is the second level of a four-level civil engineer series.

**ESSENTIAL FUNCTIONS:**

*(The following duties ARE NOT intended to serve as a comprehensive list of all duties performed by all employees in this classification, only a representative summary of the primary duties and responsibilities. Incumbent(s) may not be required to perform all duties listed and may be required to perform additional, position-specific duties.)*

Coordinates and schedules meetings related to engineering projects; participates in construction progress meetings with contractors, architects, engineers, and other applicable parties; conducts visits to project sites.

Responds to requests for information and complaints from the public; elevates issues to appropriate personnel when appropriate.

Provides technical expertise to internal staff and external agencies regarding engineering projects.

Processes a variety of documentation associated with departmental operations per established procedures and within designated time frames; distributes documentation and retains records. Inspects project sites under construction.

May prepare and complete various forms, reports, correspondence, design drawings, preliminary layouts, contract documents, project lists, cost estimates, meeting minutes, work orders, schedules, punch lists, or other related documents.

May maintain a variety of engineering records and documentations including project financials for a variety of operations, as required by the City Finance Department. Responsible for submission of reimbursement packages for reimbursement of federal funds.

Verifies the accuracy of data entered in applicable automated systems; makes corrections as appropriate.

May participate in/on a variety of meetings, public forums and/or other related groups to receive and convey information.

May review and coordinate work products with stakeholders and the general public, making corrections accordingly and coordinating those changes in a way that retains, if at all possible, the project scope, budget, and schedule.

May manage project communications, measure, and report schedule performance to project stakeholders. Outside of regular inter-Departmental coordination with the Mayor's Office, Office of the City Attorney, Finance, Purchasing, Technology Services, and other divisions of Public Works, this classification frequently involves creating and managing public-private partnership agreements that contain the donation of funds and/or services, Right of Entry Agreements, and easement acquisition to assist with project completion, stakeholders must be managed effectively and kept apprised of project status.

May communicate with management staff, other employees, developers, engineers, contractors, and external organizations to coordinate activities. Maintain a variety of engineering records and documentation.

Develops quantity estimates and construction budgets for projects.

Prepares and/or reviews engineering designs, plans, maps, charts, diagrams, estimates, and permitting requests for projects.

Conducts inspections and site visits to ensure projects are in compliance with applicable codes, laws, rules, regulations, specifications, standards, policies and procedures; initiates corrective action to mitigate violations and deviations.

Oversees and monitors on-site materials testing activities.

May coordinate project activities, assembly and opening of bid documents, contract reviews, cost estimates, completing various forms, documents and reports; and performs other related duties.

May use a city vehicle to perform field reviews.

Uses, carries, and answers their cell phone for business purposes as determined by the assigned job duties and the department head.

Must meet regular attendance requirements.

Must be able to maintain good interpersonal relationships with staff, co-workers, managers, and citizens.

Must accomplish the essential functions of the job, with or without reasonable accommodations, in a timely manner.

Performs other duties as assigned.

DEPARTMENT SPECIFIC DUTIES (if any):

When working as an Engineering Designer:

Designs and coordinates transportation engineering projects in compliance with all applicable codes, laws, regulations and standards; assists in the preparation and maintenance of city design standards; performs computer-aided design and creates conceptual designs including roadway and erosion control designs; creates preliminary layouts and produces final design drawings. May perform traffic signal related analysis and design and signal timing.

Utilizes AutoCAD Civil 3D to design transportation facilities including survey data processing, surface and contour creation, earthwork calculations, corridor modeling, quantity estimation, and 3-D visualization.

When working as an Engineering Coordinator:

Coordinates engineering project management activities which includes: developing, formulating and implementing pavement management procedures, processes, and long-term plans; designing and coordinating civil engineering infrastructure projects; vertical building projects such as roofs, building envelope, mechanical and electrical systems; coordinating access control, building controls, networking and security cameras; ensuring compliance with applicable codes, laws, rules, regulations, standards, policies and procedures; preparing and maintaining City design standards; preparing and maintaining City applicable design standards; creating conceptual engineering designs; reviewing and coordinating design reviews; serving as a construction liaison; manage assigned projects for performance, budget and quality; resolving construction-related issues; investigating project locations; coordinating bid processes and performing other related activities.

Investigates conditions of existing sanitary and storm sewer systems, slope conditions, and roadway distresses; assists with infrastructure inspections.

When working as a Transportation Project Manager:

Manage assigned projects including monitoring project and budgetary performance and compliance with applicable specifications, regulations and laws related to transportation infrastructure. Directly coordinates with TDOT Local Programs, TDOT Region 2, and utility contractors on Federal/State Funded projects.

Ensure quality and timeliness of work performed oftentimes by independent entities for which the TPM has no supervisory authority.

Identify the critical schedule path, identifying risks and making adjustments as needed to meet deadlines.

Plan, prioritize, delegate, and review the work of city design staff and/or consultants by establishing schedules and methods for achieving project goals and objectives.

Participate in the year-to-year and multi-year Capital Improvement Plan as well as the federally mandated Transportation Improvement Plan, including contribution to the creation of the plan as well as ongoing maintenance of its projects as assigned. Direct and review the analysis of a variety of data and information; formulate recommendations based on findings.

Understand and manage long-range priorities and adjust daily work scope independently and accordingly to achieve on-time and on-budget success.

Responsibly manage work processes and procedures as needed to assure success; identify and mitigate risk, ensure adherence and compatibility with organizational goals, objectives and strategic initiatives.

Stay apprised of and on the cutting edge by independent interest and research of current technical literature, maintaining professional affiliations and attending workshops and technical training sessions when appropriate.

Assist in the procurement and oversight of professional consulting and/or contracting services which includes assembling bid documents, preparing specifications, opening bids, evaluating responses to bids, participating in pre-bid meetings and performing other related activities.

Represent the department and/or the City at a variety of meetings, public events, training sessions, on committees and/or other related events or groups in order to receive and convey information pertaining to City policy, projects or programs.

Understand and concisely convey the purpose and intent of our projects to a variety of audiences. Review and coordinate work products with stakeholders and the general public, making corrections accordingly and coordinating those changes in a way that retains, if at all possible, the project scope, budget, and schedule.

Manage project communications; measure and report schedule performance to project stakeholders. Communicates with management staff, other employees, developers, engineers, contractors and external organizations to coordinate activities. Maintain a variety of engineering records and documentations including project financials for a variety of operations as required by the City Finance Department.

Responsible for submission of reimbursement packages for reimbursement of federal funds.

The TPM is also responsible for aiding and training of junior and support staff members in design and implementation of roadway designs.

When working as a Traffic Signal Systems Engineer (TSSE):

Ensures Chattanooga's streets work safely and efficiently daily. To do this, incumbent will optimize traffic signal timing; manage vendors working with the City's transportation network; oversee and manage planning, grants, design, construction, maintenance and operation of the transportation system; direct and manage the Intelligent Transportation System (ITS); support telecommunications-related programs of the City; and manage internal staff to include ensuring staff training, performance reviews, hiring, termination and ensuring City, State, and Federal regulations are followed.

Implements projects to improve transportation operations and expand ITS functionality. To do this, the incumbent will work to grow the transit signal prioritization program; pursue Advanced Transportation Management Systems (ATMS); oversee and improve the City's Closed Circuit TV (CCTV" and signal detection programs; manage the street lights; supervise any contracted vendors for implementation of this program, and manage the implementation of these programs.

Develops solutions to mobility and public space problems and helps transform Chattanooga into a 'Smart City'. To do this, incumbent will strategize and lead the Department of Transportation in its understanding of technology and cultural shifts in transportation, transit, and/or public space;

understand how people and goods move throughout the City to include: the ability to ensure accurate data collection for transportation modeling and studies; actively pursue ways to advance Chattanooga's ability to integrate technology and communications capabilities with the transportation network.

Builds partnerships to influence transportation choices by residents and visitors to Chattanooga. To do this, incumbent will support and engage with transit providers and transit advocates; find opportunities to allow Chattanooga to act as a laboratory for transit and transportation technology and work with companies and nonprofits to develop solutions; engage Chattanooga residents, businesses and visitors to understand and shape transportation demand management; manage partnerships with other transportation-oriented organizations; and act as a liaison to the telecommunications and technology community.

#### MINIMUM QUALIFICATIONS:

Bachelor's Degree in Civil Engineering (B.S.C.E.) and four (4) years of previous experience; or any combination of equivalent experience and education. Education may include other applicable engineering fields such as Environmental Engineering, Mechanical Engineering, or Construction Management.

Expertise in AutoCAD Civil 3D is preferred.

When working as Traffic Signal System Engineer

Candidates should have experience that includes progressively responsible work assignments in Smart City approaches, traffic signal operations, traffic signal network design, communication, and/or technology-based activities associated with transportation or traffic engineering; and/or project management using Tennessee Department of Transportation (TDOT) Local Program guidelines, Federal Highway Administration processes for Information Technology Service (ITS) implementation and funding mechanisms, demonstrating knowledge of the application of U.S. DOT's Notice of Funding Availability (NOFA) guidelines; or any combination of equivalent experience and education.

This is a career ladder position. This position will receive an automatic progression to Civil Engineer 3 when the incumbent has achieved the required minimum qualifications and licenses/certifications for the next position in the series.

#### LICENSING AND CERTIFICATIONS:

Valid Driver's License

Preferred Certifications:

Engineer-In-Training Certification Preferred

Tennessee Department of Environment & Conservation Certifications Preferred: Level I and Level II Erosion & Sediment Control

Tennessee Department of Transportation Certifications Preferred: Hot Mix Asphalt Roadway Certification

Concrete Certified Field Technician

Concrete Plant Quality Control Technician

Soils & Aggregate Certified Testing Technician

Tennessee Academy for Transportation Engineering Certificate (TATE)

#### KNOWLEDGE AND SKILLS:

Knowledge of engineering design standards including City standards such as NACTO Urban Street Design Guide, NACTO Urban Bikeway Design Guide, ITE Walkable Urban Thoroughfares and MUTCD; American Association of State Highway and Transportation Officials (AASHTO) Green Book - A Policy on Geometric Design of Highways and Streets, Manual on Uniform Traffic Control Devices (MUTCD), Americans with Disabilities Act (ADA), American Concrete Institute (ACI) Codes and Standards and Technical Release 55 Manual (TR 55). Customer service principles; construction principles and practices; materials, tools and methods involved in the design and construction or repair of streets and land surveying guidelines; Traffic and Signalization design principles; current transportation demand management tools, Intelligent Transportation Systems, traffic engineering principles, procurement procedures, management and leadership tools, relationship building, GIS applications, computer systems and network design, and applicable Federal, State, and Local laws, ordinances, codes, rules, regulations, standards, policies, and procedures.

Skill in using a computer and related software applications such as AutoCAD Civil 3D, ArcGIS, Synchro and HCS+, Microsoft Project, and Microsoft Office; providing customer service; reading and comprehending a variety of technical plans, drawings and models; using logic and reasoning to identify strengths and weaknesses of alternative solutions, conclusions or approaches to problems; preparing technical documents; preparing and reviewing engineering designs in compliance with applicable standards; implementing technology, overseeing and ensuring quality work from staff and vendors for design, analysis, and implementation (interpreting and ensuring accuracy of technical information), communicating clearly and effectively (written and verbal), and interpersonal skills. Working with stakeholders and other City government offices to vision and brainstorm ideas for the future of how Chattanooga could implement Smart City techniques. Ability to put ideas and theories into practice; and communication and interpersonal skills as applied to interaction with co-workers, supervisor, and the general public, sufficient to exchange or convey information and to receive work direction.

#### PHYSICAL DEMANDS:

Positions in this class typically require: reaching, standing, walking, lifting, fingering, grasping, feeling, talking, hearing, seeing, and repetitive motions.

#### WORK ENVIRONMENT:

Light Work: Exerting up to 20 pounds of force occasionally, and/or up to 10 pounds of force frequently, and/or negligible amount of force constantly to move objects. If the use of arm and/or leg controls requires exertion of forces greater than that for Sedentary Work and the worker sits most of the time, the job is rated for Light Work.

#### SPECIAL REQUIREMENTS:

Safety Sensitive: N

Department of Transportation - CDL: N

Child Sensitive: N

The City of Chattanooga, Tennessee is an Equal Opportunity Employer. In compliance with the Americans with Disabilities Act, the City will provide reasonable accommodations to qualified individuals with disabilities and encourage both prospective and current employees to discuss potential accommodations with the employer.