



CITY OF SENECA
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Seneca, South Carolina 29678
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July 2022

SENECA LIGHT & WATER POSITION DESCRIPTION – ENGINEERING TECHNICIAN

GENERAL PURPOSE

Oversees construction of utilities under City control. Makes drawings as requested. Reports to the Engineering Supervisor.

ESSENTIAL DUTIES AND RESPONSIBILITIES

- Inspects jobs under the City's control. Performs tests to determine if new and current utilities meet City standards.
- Draws sketches of utility projects and measures distances.
- Prepares drawings using computer aided drafting and design programs.
- Reviews project specifications and confers with Civil Engineer concerning assistance required such as plan preparation, acceptance testing, and evaluation of field conditions, design changes, and reports.
- Conducts materials testing and analysis.
- Prepares reports detailing tests conducted and results. Drafts and calculates field notes to document quantities, alignment, grade, and locations according to project plans or to document monthly and final progress estimates.
- Surveys project sites to obtain and analyze topographical details of sites.
- Drafts detailed dimensional drawings such as those needed for street, water, sewer, drainage, and other utility plans, systems, and projects.
- Calculates dimensions, profile specifications, and quantities of materials such as pipe, concrete, and asphalt.
- Inspects construction site to determine conformance to design specifications. Assists engineers to ensure that construction and repair of transportation, water or wastewater systems meet control requirements.
- Assists in the review of private project development plans for compliance with codes, regulations, and standards, adequacy of applications for permits and compliance with approved plans.
- Assists in the preparation of engineering plans and specifications, coordinates required advertising for bids, reviews construction bids and makes necessary recommendations based on lowest and best bids, competency of vendors and consultants, and the selection criteria.
- Assists in project management for the construction of City public works projects.
- Assists in the preparation of sanitary sewer, water, storm drainage, and street system maps, databases, and comprehensive plans.
- Assists in the maintenance of engineering and infrastructure records. Prepares and drafts as-built plans for street, water, sewer, or light systems.
- Serves as a drafter, by making final sketch of proposed drawing, checking dimension of parts, materials to be used, relation of one part to another, and relation of various parts to whole structure or project; making any adjustments or changes necessary or desired.

- Inks in lines and letters on pencil drawings as required; Drawing charts for representation of statistical data; drawing finished designs from sketches; using computer assisted drafting (CAD) equipment and software.
- Builds database compiling information from manually drawn maps and zoning maps into CAD.
- Assists customers that come into the office or call on the phone.
- Files, documents, and initiates standards for SL&W engineering drawings.
- Ensures there is adequate supplies for reproduction machines. Maintains reproduction machines.

PERIPHERAL DUTIES

- Serves as a member of survey crew or flagging as needed.
- Performs other related duties as required.

DESIRED MINIMUM QUALIFICATIONS

Education and Experience:

- High school diploma or GED,
- Two years of related technical or college training in drafting, Computer-Aided-Design (CAD), engineering technology, civil engineering, or a closely related field; and
- Two (2) years related experience
- Valid SC driver's license

Necessary Knowledge, Skills, and Abilities:

- Some knowledge of civil engineering principles, practices, and methods.
- Some knowledge of applicable City policies, laws, and regulations affecting Division activities.
- Considerable skill in arriving at cost estimates on complex projects.
- Knowledge in computer aided drafting and design programs.
- Some skill in operating the listed tools and equipment.
- Some skill in basic drafting, surveying, and flagging.
- Ability to prepare, organize and maintain engineering field and office data, reports, and systems.
- Ability to effectively communicate complex technical information, orally and in writing, to contractors, developers, property owners, employees, consultants, other governmental agency representatives, City officials and the public.

TOOLS AND EQUIPMENT USED

Personal computer, including word processing, spreadsheet, and data base and computer-aided-design software; standard drafting tools; pipe locator; engineering calculator; motor vehicle; phone; mobile radio, and surveying equipment, including total station and data collector.

ESSENTIAL SAFETY FUNCTIONS

It is the responsibility of each employee to comply with established policies, procedures, and safe work practices. Each employee must follow safety training and instructions provided by their supervisor. Each employee must also properly wear and maintain all personal protective equipment required for their job. Finally, each employee must immediately report any unsafe work practices or unsafe conditions as well as any on-the-job injuries or illnesses.

PHYSICAL DEMANDS AND WORK ENVIRONMENT

The physical demands and work environment described are representative of activities required and work environment encountered while performing the essential functions of this job. Reasonable accommodations may be made to allow individuals with disabilities to perform the essential functions.

- Work is performed in office settings and in the field as required in the inspection of various land use developments, construction sites, or public works facilities.
- Hand-eye coordination is needed to operate drafting instruments, computers, and office equipment.
- The employee is occasionally required to stand; walk; use hands to finger, handle, feel or operate objects, tools, or controls; and reach with hands and arms.
- The employee is occasionally required to sit; climb or balance; stoop, kneel, crouch, or crawl; talk or hear.
- The employee must occasionally lift and/or move up to 50 pounds.
- Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, and the ability to adjust focus.
- While performing the duties of this job, the employee occasionally works in outside weather conditions.
- The employee occasionally works near moving mechanical parts and in high, precarious places and is occasionally exposed to wet and/or humid conditions, fumes, or airborne particles, toxic or caustic chemicals, risk of electrical shock, and vibration.
- The noise level in the work environment is usually moderate.

The duties listed above are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to the position.

The job description does not constitute an employment agreement between the employer and employee and is subject to change by the employer as the needs of the employer and requirements of the job change.