



JOB DESCRIPTION

Telecommunications Systems Engineer

Date Prepared: March 2014

Class Code: 8310

SUMMARY: Under limited supervision, performs assignments requiring the application of telecommunications and engineering fundamentals; solves complex engineering problems and provides guidance to construction crews, technician, and contractors.

ESSENTIAL FUNCTIONS: -- *Essential functions, as defined under the Americans with Disabilities Act, may include any of the following representative duties, knowledge, and skills. This is not a comprehensive listing of all functions and duties performed by incumbents of this class; employees may be assigned duties which are not listed below; reasonable accommodations will be made as required. The job description does not constitute an employment agreement and is subject to change at any time by the employer. Essential duties and responsibilities may include, but are not limited to, the following:*

- Manages telecommunications projects to ensure compliance with terms and conditions and timelines per project specifications.
- Provides technical expertise for telecommunications issues.
- Develops new applications to optimize the use of the City's fiber optics network and telecommunications systems.
- Coordinates with maintenance services to ensure telecommunications and network system resources are available.
- Manages contracts with Internet service providers.
- Prepares telecommunication engineering work orders for construction crews to follow; documents the completed projects.
- Prepares detailed specifications for equipment and material purchases.
- Meets with existing and prospective customers; explains rate tariff; visits customer sites and evaluates the most economical path to service their telecommunication needs; develops designs for the extension of new communications to new facilities.
- Participates in the development of plans and estimates for construction and major repair of the telecommunications and fiber optic backbone system including Internet, Dark Fiber and related facilities.
- Assists in implementing effective equipment maintenance programs.
- Checks plans and construction work order packages for compliance to proper engineering practices.
- Develops power distribution switching procedures.
- Provides stand-by services during off hours and responds to customer and system emergencies.
- Performs other related duties as required.
- Supports the relationship between the City of Vernon and the general public by demonstrating courteous and cooperative behavior when interacting with visitors and City staff; maintains confidentiality of work-related issues and City information; performs other duties as required or assigned.

MINIMUM QUALIFICATIONS:

Education, Training and Experience Guidelines:

Bachelor's degree in Computer Science with emphasis in telecommunications, information technology, or electrical engineering AND two years of experience in a telecommunications service provider environment as a system engineer or similar is required.

Knowledge of:

- City organization, operations, policies, and procedures.
- City's telecommunications infrastructure.
- Customer service and public relations methods and practices.
- Engineering and telecommunications codes and standards.
- Installation, repair, and maintenance of telecommunications equipment including fiber optic backbone systems; Internet, and Dark Fiber.
- Principle and practices of Internet service provisioning.
- Principles and practices of administrative management, contract administration, and project management.
- Principles and practices of power distribution switching.
- Record keeping and file maintenance principles and practices.
- Telecommunications systems media, telecommunication utility standards, tariffs and rate structures, and overhead and underground communications line extensions.

Skill in:

- Building effective teams and providing efficient customer services.
- Collecting and analyzing data and making appropriate recommendations.
- Communicating effectively verbally and in writing.
- Defining problems, establishing facts, drawing valid conclusions, recommending effective solutions.
- Directing the work of subordinate staff.
- Establishing and maintaining cooperative working relationships with managers, supervisors, staff, external public agencies and other entities.
- Interpreting and applying City, state and federal policies, laws, regulations, statutes, and codes.
- Managing situations requiring diplomacy, fairness, firmness and sound judgment.
- Operating a personal computer utilizing standard and specialized software.
- Provisioning and commissioning switches, routers, and servers for telecommunications infrastructure.
- Working effectively with others to develop solutions for problems.

LICENSE AND CERTIFICATION REQUIREMENTS:

A valid California State Driver's License and certification as an Engineer-in-Training is required.

PHYSICAL DEMANDS AND WORKING ENVIRONMENT:

Work is performed in a standard office environment, and in internal and external environments throughout the City, with possibility of exposure to hazardous materials.