



Midwest Energy & Communications Role Profile

Communications Design Engineer

Role ID: DSGNENG : Revision: 2

Reports to: Communication Engineering & Operations Manager

Status:

Department: Fiber Communications

Division: NONE

Location:

Wage Scale: X

Wage Level: All

Kolbe C:

Approved by/Date: Kerri Wade 07/20/2018

Role Summary

This position is responsible for the design and coordination of engineering projects, specifically the materials, records, and uses of cost effective engineering design principles for the construction and inspection of telecom facilities.

KRA - Key Results Area

This is intended to be only an overview of primary responsibilities for this role. This is not a complete listing of role functions. All Team Members are responsible for assisting the organization with various tasks as directed by management. Special projects and activities may also be created where Team Members talents can best be utilized.

Design and Layout

- Responsible for the design and analysis of the communication network.
- Design, stake, and coordinate all engineering phases for new facility drops, extensions, and repairs to meet approved engineering practices and established policies.
- Continually research and evaluate new and existing methods and materials to revise or institute new materials, procedures and technologies for outside plant network economy, efficiency and reliability.

Construction Management

- Maintains the security of the outside plan (OSP) network by managing cable location and new add on or relocations.
- Inspect and monitor projects, including quality assurance, as-builts, acceptance testing, invoice validation, and ensure adherence to safety standards, building codes, or specifications.
- Pre-surveys job site to determine needs for equipment, materials, parts, and safety provisions. Works with Facilities Coordinators, vendors and contractors/homeowners to coordinate various construction projects.
- Obtains necessary rights-of-way for construction involving railroads and permits from Departments of Transportation.
- Develop and maintain accurate records for reference, analysis, and monitoring of all outside plant cable, components, and equipment.

- Utilizes a variety of systems for the processing and reporting of work activities, inventory, documentation, and budgets for new construction and route maintenance.
- Works with GIS mappers to develop and maintain proper GIS database.

Competencies

To perform the role successfully, an individual should demonstrate the following competencies:

- Engineering - Ability to draw, read, and interpret blueprints and other source documents.
- Judgment - Displays willingness to make decisions; Exhibits accurate judgment & confidentiality; Supports and explains reasoning for decisions; Details and clarifies needs for basis of decisions; Includes appropriate people in decision-making process.
- Oral Communication - Speaks clearly and persuasively in positive or negative situations; Listens and gets clarification; Responds well to questions; Demonstrates engaging presentation skills; Participates in meetings.
- Problem Solving - Utilizes creative talents and skills to successfully resolve problems; Develops solutions that work; Works well in group problem solving situations.
- Project Management - Develops project plans; Coordinates projects; Communicates changes and progress; Completes projects on time and within budget; Manages project team activities.
- Technical Skills - Pursues training and development opportunities; Strives to continuously build knowledge and skills; Shares expertise with others.
- Technology - Able to operate various technical equipment including personal computer equipment, such as various software programs and printers.
- Written Communication - Writes clearly and informatively; Edits work for spelling and grammar; Varies writing style to meet needs; Presents numerical data effectively; Able to read and interpret written information.

Qualifications

To perform this role successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Education/Experience:

This role requires the following related education or equivalent combination with experience and training.

- CAD, specialized telecommunications technology, or technical/engineering training or education. *Minimum 2 years experience*

Skills & Proficiencies:

- Extensive knowledge of outside plant construction methodology *Level 4 - Advanced. Proficient to work independent and train others.*
- Operation and result interpretation from the use of OTDRs, Optical Power Meters, Electrical Multimeters, and similar equipment *Level 3 - Intermediate. Up to 5 years and can work with little assistance.*
- Optical transceiver/receiver specifications in order to make recommendations to Network Operations *Level 3 - Intermediate. Up to 5 years and can work with little assistance.*
- RUS, IEEE, NESC, NEC, ITU, City, County and State specifications and/or standards *Level 3 - Intermediate. Up to 5 years and can work with little assistance.*
- Telecommunications media and their use to facilitate the transport of all services *Level 4 - Advanced. Proficient to work independent and train others.*

Certificates/Licenses:

- Valid Drivers License

Supervisory Responsibilities

- Directs: While not in a direct reporting relationship it is expected that this position will provide guidance to the installation technicians, facilities coordinators, and solutions agents to ensure reliable quality service to the customers.

Training Requirements

The following training may be required for this position.

Activities

Work Environment

The work environment characteristics described here are representative of what a Team Member encounters while performing the essential functions of this role. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

- Fieldwork or on-site temporary assignments
- Open office or cubicle
- Works independently

Physical Demands

While performing the duties of this role, the Team Member is regularly or occasionally required to meet the following physical demands. To assure safety, Team Members in this role must be able to complete the following physical requirements

- Movement - Use two hands to finger, handle, feel
- Sit and stand intermittently
- Talk or hear
- Vision - Close
- Vision - Color

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