



JOB DESCRIPTION

Job Title: Network Equipment/Electrical Engineer

Department: Network Technology Solutions

Reports To: Network Engineering Manager

FLSA Status: Exempt

Represented by the Association: No

Job Summary: This position is responsible for the engineering of all types of network equipment and supporting transport infrastructure, including planning and design of fiber and radio frequency facilities

Essential Job Duties and Responsibilities:

- Provide engineering, estimating, planning, budgeting and ordering of switching, toll, power, other communications platforms, data network equipment, subscriber carrier equipment, fiber optic transport and may include designing of special circuits and radio frequency equipment (RF).
- Plan and design AC and DC power distribution including (but not limited to) circuit breaker/fuse panels, generators, batteries, rectifiers, inverters, etc., specifically as related to communications and data environments.
- Conduct load audits for existing power generation and battery backup systems.
- Ensure electrical distribution systems and workplace practices comply with current National Electrical Code (NEC) and Occupational Safety and Health Administration (OSHA) regulations.
- Plan, design and implement IP, Course Wave Division Multiplexing (CWDM), Dense Wave Division Multiplexing (DWDM) transport networks.
- Create work orders for conduit, cable/wire racking, raceway, and equipment placement within Telecom and data environments.
- Create work orders for the installation of equipment, fiber/cable management, AC/DC power distribution, and rack placement. Oversee short term and long term planning for space, power, and cooling utilization in network infrastructure locations including placement of future racks, power needs, fiber management, etc.
- Create and maintain accurate records of facilities and infrastructure for all network equipment locations, including the use of CAD software to create schematics
- Provide budgeting information, cost estimating, and planning for overall infrastructure needs.
- Find, qualify and work with outside contractors, as well as procure permits and licenses for projects

Additional Job Duties and Responsibilities:

- Perform other duties and responsibilities as required to fulfill job function or as assigned.

Knowledge, Skills, and Abilities:

- Knowledge and understanding of:
 - company policies, procedures, products and services.
 - general office practices and procedures.
 - telecommunications construction and engineering practices and principles.
 - time management and organizational skills.
 - telecom infrastructure and ISP network design, including cable counts, plant records, cable makeup, fiber connectivity, etc.
 - telecom transport equipment and the services/protocols utilized for each (i.e. DWDM, SONET, Ethernet, TDM, etc.).
 - telecom access equipment and the services/protocols utilized for each (i.e. POTS, ADSL, VDSL, SHDSL, Ethernet, etc.).
 - local and national regulations (i.e. NFPA 70e and OSHA).
 - conductor sizing and power load design.
 - grounding and bonding concepts and the ability to implement them.

- Skill to:
 - write original material, edit, proofread and finalize written material.
 - gather and report numerical data and produce statistical reports.
 - operate various office equipment such as a computer, copy machine, fax machine and multi-line telephone.

- Ability to:
 - work independently.
 - think analytically and be a problem solver.
 - communicate effectively, both in writing and in speaking, with customers, co-workers, and various business contacts in a courteous and professional manner.
 - work completely and accurately under time constraints and deadlines.
 - obtain and maintain a valid Montana driver's license, have a good driving record and be insured under the Company insurance policy.
 - read, analyze, and interpret reports.
 - provide excellent customer service.
 - work in a safe and effective manner.
 - be proficient in writing and maintaining records for circuits and builds.

Education and Experience:

Any combination equivalent to the following education and experience that would provide the required knowledge, skills and abilities would qualify. A typical way to obtain the knowledge, skills and abilities would be:

Bachelors' degree in electrical engineering or related field; 5 years of experience in an engineering related field, working on telecommunications networks, including work on switching, transmission, and toll equipment. Experience with Data Network Equipment is preferred.

Physical and Other Requirements:

This position may require 8 to 10 hour days, flexible hours and some weekends.

Physical Requirements	0-24%	25-49%	50- 74%	75-100%
Seeing: Must be able to read reports and use computer. Must be able to read and interpret test equipment.				X
Hearing: Must be able to hear well enough to communicate with employees and business contacts.				X
Standing/Walking:	X			
Climbing/Stooping/Kneeling:	X			
Lifting/Pushing/Pulling:	X			
Fingering/Grasping/Feeling:				X
Driving: Including off-road and non-trailed areas.		X		

Working Conditions:

This factor measures the surroundings or physical conditions under which a job must be done and the extent to which those conditions make the job disagreeable. Consider the presence and relative amount of exposure to dust, dirt, heat, fumes, contaminants, cold, noise, vibration, wetness, etc.

Generally good working conditions with the absence of disagreeable conditions. Limited exposure to some of the elements listed above and some natural/outdoor elements.

Additional Information:

This job description is not intended to be all-inclusive, and employee will also perform other reasonably related business duties as assigned by immediate supervisor and other management as required. Blackfoot reserves the right to revise or change job duties and responsibilities as the need arises. This job description does not constitute a written or implied contract of employment.

Employee Acknowledgement

Date

Revised Date: May 1, 2017