



Office of Human Resources  
Fiber Technician II – CJ3403  
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### General Statement of Duties

Performs full performance level duties installing, repairing, and troubleshooting of fiber optic cable and underground junction boxes and conduit. Handles the most complex assignments and situations that arise.

### Distinguishing Characteristics

The Fiber Technician II is distinguished from the Fiber Technician I which performs intermediate level duties installing, repairing, and troubleshooting of fiber optic cable and underground junction boxes and conduit. It is also distinguished from a Fiber Technician I by level of decision making in the field and level of skill set.

### Essential Duties

Install, maintain/repair and troubleshoot fiber optic cable, and underground junction boxes and conduit that supports the system outside plant fiber optic infrastructure by utilizing specialized equipment, devices, and processes.

Analyze traces on a networkwide system to address issues, outages, buildout, and fiber breaks.

Designs cable placement, splicing and needed fiber count to determine the ideal build out of the network. Designs redundant, resilient and secure circuits to different end points. Designs and updates splice diagrams.

Splices outside plant optical fiber together mechanically or with the help of a fusion splicer, terminates and tests the outside plant optical fiber with specialized equipment and devices, fiber enclosures, troubleshooting fiber optic cable, utilize load transmission readings, extensive span shot readings, cable placement, install patches, test patch cords, install radios for fiber cable bridges, install CAT5 cabling, and verify connectivity.

Utilizes utilize Autodesk, Arc GIS, Vizio, excel and word documents to document the communications infrastructure and routinely edit the Autodesk overview map that is used to archive the cable routes.

Produce, utilize and protect each glass strand that is fusion spliced (welded) together to create a single, un-broken, continuous strand of glass. Design and plan the routes for the glass strands.

Research, select, recommend procurement, receive, and manage all electronic devices used for Fiber Optic trade work such as fusion devices, test equipment, and affiliated tooling. source and manage an inventory of hardware materials needed within the infrastructure.

Monitor the devices that actively support the infrastructure and responsible for the steady communications link to each. Document the existence of the infrastructure and discuss the current health, and future growth of the communications infrastructure.

Oversee internal and external stakeholders and offers technical assistance in drawing production work such as analysis, network design, topology layout, fiber splice plans, cable duct and routing.

Provide technical support for connecting transportation system fiber backbone, design splicing diagrams for connectivity to the transportation system and create the addition to the topology maps in CAD/GIS.

Responsible for the operation and maintenance of all aspects of the fiber optic infrastructure to ensure the safety and reliability of the CCD traffic signal systems. Ensures traffic signals cabinet ITS devices remain functional daily.

Addresses highly complex situations including field emergencies such as incidents and outages, coordination with contractors, working with multiple internal and external partners.

Performs other related duties as assigned.

Employees may be re-deployed to work in other capacities in their own agencies or in other City agencies to support core functions of the City during a City-wide emergency declared by the Mayor.

Any one position may not include all the duties listed. However, the allocation of positions will be determined by the amount of time spent in performing the essential duties listed above.

## Competencies

Customer Service - Interacts with customers in a friendly and professional manner, works to resolve issues quickly and effectively, and is knowledgeable about products and services.

Oral Communication - Expresses information to individuals or groups effectively; taking into account the audience and nature of the information; makes clear and convincing oral presentations; listens to others, attends to nonverbal cues and responds appropriately.

Technical Competence – Uses knowledge that is acquired through formal training or extensive on-the-job experience to perform one's job; works with, understands, and evaluates technical information related to the job; advises others on technical issues.

Technical Problem Solving - Troubleshoots, diagnoses, analyzes, and identifies system malfunctions to determine the source and cause of the problem.

Writing - Writes in a clear, concise, organized, and convincing manner for the intended audiences.

## Knowledge & Skills

Knowledge of information technology sufficient to be able to perform maintenance, repair and installation of communications systems.

## Level of Supervision Exercised

None

## Education Requirement

Graduation from high school or the possession of a GED, HiSET or TASC Certificate.

## Experience Requirement

Five (5) years of full performance experience performing maintenance, repair and installation of fiber optic cabling.

## Education and Experience Equivalency

Additional appropriate education may be substituted for the minimum experience requirements.

## Licensure and/or Certification

This job requires driving. Requires a valid Driver's License at the time of application.

Licenses and certifications must be kept current as a condition of employment.

**Working Environment**

Potential exposure to cement dust.  
Potential exposure to hazardous conditions where there is danger to life, body, and/or health.  
Potential exposure to hazards from electrical/mechanical/power equipment.  
Handles emergency or crisis situations.  
Noise: sufficient noise to cause distraction.  
Occasional pressure due to multiple calls and inquiries.  
Subject to injury from moving parts of equipment or vehicles.  
Subject to injury from moving parts or equipment.  
Subject to many interruptions.  
Temperature Changes: Variations in temperature from hot to cold when works in the field.

**Level of Physical Demands**

3-Medium (20 - 50 lbs.)

**Physical Demands**

Agility: Ability to move quickly and easily.  
Balancing: Maintaining equilibrium.  
Carrying: Transporting or moving an object.  
Color vision: Ability to distinguish and identify different colors.  
Crawling: Moving about in a low or crouched position.  
Crouching: Positioning body downward and forward.  
Depth Perception: Ability to judge distances and space relationships.  
Eye/Hand/Foot Coordination: Performing work through using two or more body parts or other devices.  
Feeling: Perceiving attributes of objects by means of skin receptors, communication, or otherwise.  
Field of Vision: Ability to sharply detect or perceive objects peripherally.  
Fine Dexterity: Sufficient coordination to operate a vehicle and manipulate objects.  
Fingering: Picking and pinching, through use of fingers or otherwise.  
Handling: Seizing, holding, grasping, through use of hands, fingers, or other means.  
Hearing/Talking: Perceiving and comprehending the nature and direction of sounds/ability to communicate ideas.  
Kneeling: Assuming a lowered position.  
Lifting: Moving objects weighing no more than 10 pounds from one level to another.  
Neck Flexion: Perceiving objects located above or below.  
Oral Comprehension: Ability to discern the meaning of oral speech.  
Pulling: Exerting force upon an object so that it is moving to the person.  
Pushing: Exerting force upon an object so that it moves away from the person.  
Reaching: Extending the hands and arms or other device in any direction.  
Repetitive motions: Making frequent or continuous movements.  
Sitting: Remaining in a stationary position.  
Standing: Remaining in a stationary position.  
Stooping: Positioning oneself low to the ground.  
Talking: Communicating ideas or exchanging information.  
Vision Far Acuity: Ability to perceive or detect objects clearly at 20 feet or more.  
Vision Near Acuity: Ability to perceive or detect objects at 20 inches or less.  
Vision: Ability to perceive animal behavior, comprehend signs, and detect color.  
Walking: Ability to move or traverse from one location to another.  
Written Comprehension: Ability to discern the meaning of written words.

**Background Check Requirement**

Criminal Check  
Employment Verification  
License/Certification

Motor Vehicle Record

**Assessment Requirement**

None

**Probation Period**

Six (6) months.

**Class Detail**

**Pay Grade:** NE-20

**FLSA Code:** N

**Established Date:** 11/27/2022

**Established By:** AD

**Revised Date:**

**Revised By:**

**Class History:** 11/2022 – This is a new classification created for DOTI.