



HUMAN RESOURCES DEPARTMENT

POSITION DESCRIPTION

TITLE:	Signal Technician I	LAST UPDATED:	June 4, 2015
DEPARTMENT:	Engineering Service	JOB CLASS:	
REPORTS TO:	Senior Signal Technician	FLSA DESIGNATION:	Non-Exempt

Summary: Under general direction of the Senior Signal Technician will construct, install, test, inspect, troubleshoot, repair, and maintain traffic signals, school zone flashers, and streetlights. Assists with setting up controllers and installing vehicle detections systems, communication equipment, and other traffic signal equipment. Assists with signs and markings responsibilities when necessary.

The intent of this position description is to provide a representative summary of the major duties and responsibilities performed by incumbent(s) in this position. Incumbent(s) may not be required to perform all duties in this description and incumbent(s) may be required to perform position-related tasks other than those specifically listed in this description.

Essential Job Functions:

- Performs line locates for underground traffic signal and lighting equipment.
- Assists with the inventorying of materials and equipment.
- Assists with performing maintenance on message boards, generators and other traffic signal and control equipment as assigned.
- Programs and places message boards for special events or emergencies, as needed.
- Installs, troubleshoots and repairs traffic signal equipment.
- Inspects traffic signal equipment at operational intersections to ensure signals and school zone flashers are operating as programmed.
- Assists with responding to trouble calls on equipment malfunctions; identifies problem; repairs or replaces faulty equipment; documents trouble call and problem resolution.
- Routinely patrol streets to identify traffic signals that may need repair.
- Assists with performing routine maintenance on traffic control devices and other equipment.
- Reads and interprets schematics, blueprints, and other diagrams; such as technical manuals, NEC and MUTCD.
- Replaces parts such as load switches, relays and flashers, and documents process.
- Makes recommendations and carry out plans with the approval of the supervisor.
- Assists in maintaining daily work records, maintenance history and work orders.
- Installs, repairs maintains and inspects traffic control signage, pavement markings, guardrails and permanent barricades.
- Assists with fabrication of traffic control signs.
- Flags traffic and installs work zone signage and barricades needed to perform work safely at job sites.
- Implements safety procedures at job sites.
- Performs manual traffic and pedestrian counts.
- Reads and interprets plans, schematics, product safety data sheets, and the Manual of Uniform Traffic Control Devices.
- Completes work orders summarizing daily work tasks.
- Trims trees that obstruct traffic control signage.
- Cleans work sites and restores landscaping to original condition upon completion of all projects.
- May be required to remove debris, fallen trees and limbs; replace street signs during or after hazardous weather or other emergencies.

Other Important Duties:

- May be required to work weekends or after hours to support traffic management and operations for special events or emergency situations.
- May be required to assist with setting up traffic control or detours necessary for special events and emergency situations.
- May be required to work overnight shifts for the installation of pavement markings.

- Provides backup assistance, on-call coverage and support to other City departments as assigned.
- Travels to work sites, and to attend meetings, conferences and training.
- Performs other related duties as assigned.
- Regular and consistent attendance for the assigned work hours is essential.

Required Knowledge and Skills:

- Knowledge and ability to follow City policies and procedures.
- Knowledge of pertinent federal state and local laws and ordinances pertaining to roadway, lighting and traffic signal operations.
- Knowledge of the common principles, practices, equipment, materials and methods used in the installation and maintenance of traffic control devices.
- Knowledge of electrical codes, electronic circuits and circuit logic.
- Knowledge of TxDOT work zone safety requirements and procedures.
- Knowledge of the Manual of Uniform Traffic Control Devices.
- Knowledge of traffic control sign, pavement marking, and guardrail maintenance, repair, and construction methods and practices.
- Knowledge of occupational safety and health rules, regulations, practices and procedures.
- Knowledge of computers and computer related software.
- Skill in reading blueprints or diagrams.
- Skill in troubleshooting and resolving electronics related problems.
- Skill in effective oral and written communications.
- Skill in basic mathematical calculations.
- Skill in planning and coordinating work site activities.
- Ability to maintain accurate and complete records.
- Ability to communicate effectively verbally and in writing.
- Ability to change ballast, capacitors, bulbs, and fuses in roadway lighting.
- Ability to work with voltages that vary 120/240, 240/480 & straight 480.
- Effective oral and written communication skills.

Preferred Education, Experience, and Certifications:

- High School Diploma or GED plus 1 year experience in the installation, maintenance and repair of traffic control devices; or equivalent combination of education and experience.
- Must have IMSA Level I Certification in Traffic Signals or the ability to obtain within 24 months of date of hire (equivalent TEEEX course certifications will be considered).
- IMSA Work Zone Safety or ability to obtain within 6 months of date of hire (TEEX course certification will be considered).
- Must have IMSA Level I Certification in Signs and Markings or the ability to obtain within 12 months of date of hire.
- Must pass a pre-employment drug screen, MVR check, criminal background check and post-offer physical agility exam.
- Must possess State of Texas Class A CDL Driver's License within 6 months of employment.

Environmental Factors and Conditions/Physical Requirements:

- Work is performed in an outdoor environment.
- May be subject to repetitive motion such as twisting and upper body motion, braking, operating levers, digging, when operating heavy equipment, or manually assisting in the maintenance and repair in assigned area.
- May be subject to bending, reaching, kneeling and lifting such as repairing or replacing equipment.
- May be subject to exposure to moving traffic, extreme weather conditions, hazardous chemicals, fumes, heights, confined spaces, trenches, air and water borne pathogens, body fluids, infectious diseases, rodents and insects.
- Work in high voltage areas, and at heights up to 50 feet.
- Lifts objects such as signal heads, cabinets, controllers, poles, mast arm signs, generators, tools and materials weighing up to 60 lbs.

- Climb up and down from the back of trucks and man lift devices, reaches above head to change out signal aerial equipment, digs and works in ditches and bore pits.

Equipment and Tools Utilized:

- Equipment utilized includes personal computer, copier, calculator, fax machine, 2-way radio, cellular telephone, heavy equipment, power and hand tools, and department vehicles.
 - Use a variety of standard electronic and electrical testing instruments and tools including traffic monitor tester, load switch flasher and flash transfer analyzer, NEMA TS1 and TS2 controllers, NEMA conflict monitors, loop inductance meter, line locator, and volt-ohm meter.
 - Use of and maintain common hand tools and equipment such as a backhoe, concrete saw, jackhammer, rotary hammer, boom trucks, mechanical ditcher, etc.
 - Uses GPS equipment and digital camera to locate signs.
 - Works with chemicals to clean equipment.
- Operates light and heavy construction equipment including concrete saws, back hoes, bob cats, MMA applicator, thermoplastic applicator, paint sprayer, epoxy dispenser, hand squeeze roller applicator, post hole diggers, pole puller, air tools, compressor and grinders as needed. Also uses power tools, personal computer, copier, fax machine, shovel, 2-way radio, cellular phone, and department vehicles.
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Approved By:

Signed by Shelley Lang, Engineering Division Manager

Shelley Lang, Engineering Division Manager

06/04/2015

Date



Shannon Allyn, Human Resources Generalist

06/04/2015

Date