

CITY OF OVERLAND PARK - POSITION DESCRIPTION

TITLE:	Engineering Technician II (Flood Warning)	BAND/LEVEL:	Tech II
DEPARTMENT:	Public Works	JOB NO:	3470
DIVISION:	Stormwater Engineering	DATE:	04/11/2017
REPORTS TO:	Supervisory Staff	FLSA STATUS:	Non Exempt
FT/PT/SEASONAL:	Full Time	COST CENTER:	311
REPLACES:	Engineering Tech II	LAST REVISED DATE:	03/25/2012

JOB SUMMARY STATEMENT:

Performs installation, configuration, troubleshooting and repair of remote environmental monitoring equipment. Performs routine and emergency maintenance of remote environmental monitoring equipment. Operates flood warning software on PC hardware in Windows NT and QNX operating systems. Generates and maintains environmental databases. Collects data necessary to assure compliance with agreements between the City and other governmental agencies. Performs direct readings of stream flows and maintains direct reading equipment. Provides assistance to Civil Engineer and Supervisory Civil Engineer. Assists with emergency operations, including snow removal, as required.

DUTIES AND RESPONSIBILITIES:

1. Performs installation, configuration, troubleshooting and repair of remote environmental monitoring equipment. This equipment combines specialized computer hardware, radio telemetry, and digital and analog sensors to monitor and report in real time environmental conditions such as rainfall, stream levels, temperature, wind, humidity, barometric pressure.
2. Performs routine and emergency maintenance of remote environmental monitoring equipment. Schedules semi-annual maintenance of all Flood Warning System gauges within Johnson County. Arranges resources including maintained batteries and other parts. Coordinates with schedules of other personnel to provide needed maintenance. Configures and maintains alarm systems with paging capability for notification to assigned maintenance person(s) of system failures. Responds to system or personnel requests for emergency troubleshooting and repair within the prescribed time of notification.
3. Operates flood warning software on PC hardware in Windows NT and QNX operating systems. Coordinates with IT Department on configuration, maintenance and troubleshooting of computer systems used to operate flood warning software systems. These include data acquisition, databases, hydraulic and hydrologic modeling, ftp sites, and web services software.
4. Generates and maintains Geographic Information System (GIS) databases including storm drainage systems and environmental monitoring equipment. Uses GIS database to perform analysis of data, including storm routing, radio path survey, drainage basin characteristics, environmental parameter displays and reports. Maintains flood warning system database on a Windows NT operating system using an Access 97 database, and a flood warning system database on a QNX operating system using NovaStar database structure. Maintains various databases related to maintenance operations.
5. Provides information to assure compliance with agreements between the City and other governmental agencies. Maintains and provides records of equipment performance and downtime. Provides rainfall records to Johnson County and others as requested or required by agreements. Maintains and provides inventories of spare parts and equipment.

6. Performs direct readings of stream flows and maintains direct reading equipment. Procures and maintains equipment for this task available to be used at short notice. Develops discharge measurements and maintains stage-discharge relationships for gauge sites.
7. Provides assistance to Civil Engineer (Flood Warning) and Assistant City Engineer. Performs tasks as assigned to assist in maintenance of the Stormwatch web site and other division goals.
8. Assists the public by responding to questions or requests for information either in person, by phone or by electronic mail.
9. Assists with emergency operations, including snow removal, as required.
10. The employee must work the days and hours necessary to perform all assigned responsibilities and tasks. Must be available (especially during regular business hours or shifts) to communicate with subordinates, supervisors, customers, vendors and any other persons or organization with whom interaction is required to accomplish work and employer goals.
11. The employee must be punctual and timely in meeting all requirements of performance, including, but not limited to, attendance standards and work deadlines; beginning and ending assignments on time; and scheduled work breaks, where applicable.

GENERAL QUALIFICATIONS

EDUCATION & SPECIAL LICENSE(S)/CERTIFICATIONS:

- Basic education with additional college level courses in engineering graphics, electronics, computer-aided drafting, computer programming, surveying, mathematics, and construction operations and materials or an equivalent combination of formal education and work experience.
- Valid driver's license required.
- Must maintain an insurable driving record.
- Must have or obtain a Commercial Driver's License (CDL) within 12 months of employment with the City.

EXPERIENCE:

- Three years of progressively more responsible experience with computerized environmental monitoring systems, including some experience in computer programming and configuration, or an equivalent level of experience.
- Training in the use of flood warning software, with StormWatch, Contrail and NovaStar, and factory-authorized training in the installation, configuration, and maintenance of environmental monitoring hardware, with HydroLynx Systems and High Sierra equipment experience most desirable.

SKILLS:

- Basic computer operations skills
- Computer hardware and engineering skills
- Environmental software applications skills
- Electronic equipment maintenance skills
- Surveying skills
- Good oral and written communication skills

MENTAL REQUIREMENTS:

- Ability to install, maintain and troubleshoot environmental monitoring equipment.
- Ability to analyze complex problems and recommend possible solutions.
- Ability to compute mathematical calculations using in surveying, measuring and mapping.
- Ability to understand computer commands and generated reports.
- Ability to read maps.
- Ability to work under distracting and environmentally stressful conditions when maintaining environmental monitoring systems or performing survey work.
- Exhibit diplomacy and judgement when working with citizens, contractors or other public groups.

PHYSICAL REQUIREMENTS:

- Ability to lift 50 pounds and transport 50 feet.
- Ability to transverse rough terrain.
- Ability to travel to remote field locations, public buildings or other work sites.
- Hand/eye coordination to operate surveying equipment and install monitoring equipment.
- Exposure to extreme environmental conditions.
- Exposure to vehicle fumes and noise.
- Ability to visually review maps, plans and plats.

SUPERVISORY RESPONSIBILITY (Direct & Indirect):

- None

The preceding job description has been designed to indicate the general nature and level of work performed by employees within this classification. It is not designed to contain or be interpreted as a comprehensive inventory of all duties, responsibilities, and qualifications required of employees assigned to this job.

ESSENTIAL FUNCTIONS

ACTIVITY	DURATION	DESCRIPTION
Standing	Occ. - Const.	even and uneven surfaces
Walking	Occ. - Const.	even and uneven surfaces
Sitting	Occ. - Const.	motor vehicle operation / office environment
Driving	Occasional	motor vehicle operation; automatic transmission
Bending	Occ. - Freq.	Measuring / using misc. instruments
Stooping	Occ. - Freq.	Measuring / using misc. instruments
Twisting	Occasional	Misc. instrument use and material handling
Kneeling	Occasional	Misc. instrument use and material handling
Squatting	Occasional	Misc. instrument use and material handling
Crawling	Occasional	crawling in / through pipes
Stairs	Occasional	inlets
Ladders	Occasional	inlets

LIFTING	WEIGHT	HEIGHT	FREQUENCY	DURATION	DESCRIPTION
Monument casting	75 lbs.	ground to waist	variable	occasional	two person lift
sledge hammer	10 lbs.	floor to shoulder	variable	occasional	two hand lift
traffic cones	25 lbs.	0-49 inches	variable	occasional	one or two hand lift
traffic barricade	22 lbs.	0-49 inches	variable	occasional	one or two hand lift
Carbite blade	61 lbs.	0-24 inches	variable	occasional	two person lift
Rubber blade	90 lbs.	0-24 inches	variable	occasional	two person lift
Backing plate	150 lbs.	0-24 inches	variable	occasional	two person lift
Material spinner	100 lbs.	0-24 inches	variable	occasional	two person lift
Tailgate doghouse	95 lbs.	0-61 inches	variable	occasional	two person lift

CARRYING	WEIGHT	DISTANCE	FREQUENCY	DURATION	DESCRIPTION
Monument casting	75 lbs.	0-20 feet	variable	occasional	two person carry
Sledge hammer	10 lbs.	0-20 feet	variable	occasional	one or two hand carry
Traffic cones	25 lbs.	0-20 feet	variable	occasional	one or two hand carry
Traffic barricade	22 lbs.	0-20 feet	variable	occasional	one or two hand carry
Carbite blade	61 lbs.	0-10 feet	variable	occasional	two person carry
Rubber blade	90 lbs.	0-10 feet	variable	occasional	two person carry
Backing plate	150 lbs.	0-10 feet	variable	occasional	two person carry
Material spinner	100 lbs.	0-25 feet	variable	occasional	two person carry
Tailgate doghouse	95 lbs.	0-25 feet	variable	occasional	two person carry

PUSHING/PULLING	FORCE	FRQUNCY/DUR	DESCRIPTION
160 lb. man hole cover	73 lbs.	occasional	1 or 2 hands
Material spinner	100 lbs.	occasional	two person push/pull - 0-20 inches
Snow plow	40 lbs	occasional	two hand push/pull

REACHING	DURATION	DESCRIPTION
Below Knee Height	occasional	use of varioius tools
Below Waist Height	occasional	use of varioius tools
Forward > 2 Feet	occasional	use of varioius tools
Above Shoulder Height	occasional	use of varioius tools
Lateral Reach	occasional	use of varioius tools

FINE MOTOR	DURATION	DESCRIPTION
Gripping	occ. - freq.	misc. tool usage; computer utilization; handling materials
Pinching	occ. - freq.	misc. tool usage; computer utilization; handling materials
Wrist Flexion & Extension	occ. - freq.	misc. tool usage; computer utilization; handling materials
Wrist Lateral Deviations	occ. - freq.	misc. tool usage; computer utilization; handling materials
Pronation & Supination	occ. - freq.	misc. tool usage; computer utilization; handling materials

OTHER IDENTIFIED ESSENTIAL FUNCTIONS:

- Use of computer / keyboard / mouse device
- Ability to drive and inspect necessary roads during snow event
- Computer software would require some degree of visual color discrimination

The position of Engineering Technician is variable in nature related to the frequency and duration of all essential functions. Depending on the type of project that is ongoing, there will be time periods when an individual working in this position will spend up to 8 hours working in an office environment and within several days or a week will spend up to 8 hours in the field standing, walking, inspecting, measuring, etc. Therefore, it is difficult to identify an exact frequency and duration of many of the above identified tasks.