

LAND SURVEY TECHNICIAN

JOB DESCRIPTION

Classification Responsibilities: Under general supervision, performs a variety of technical, skilled land surveying work in support of engineering projects and performs related work as required.

Distinguishing Features: An employee in this classification performs skilled, technical survey work in the field, operates land surveying equipment, including but not limited to data collectors, Global Navigation Satellite System (GNSS) equipment, total stations, and levels. Actively participates in all assigned land surveys including but not limited to boundary surveys, topographic surveys, and construction surveys. Prepares and updates maps, schedules, graphs, benchmark elevations, and monument ties to update survey files and data. Enters data or information using a data collector in order to store surveying information to be downloaded into a computer. Reads and interprets technical engineering plans and plots. Assists with performing calculations for construction projects in the field and/or office (example: roadway grades, curb and gutter grades, utility and right-of-way locations, and ditches). Prepares written legal descriptions and departmental memos with clearly organized thoughts and using the proper sentence construction, punctuation, and grammar. Performs construction staking duties including but not limited to, staking out features, placing hubs or nails, placing lath, grading, and slope staking. Sets up traffic safety devices and performs flag person duties when needed. Performs other duties as assigned. This class can progress through noncompetitive criteria-based promotion to the next higher class of Land Surveyor after consistently and successfully performing skilled, technical land surveying work in the field, achieving a “successful performance” on all core value ratings on most recent performance appraisal, and upon becoming licensed in the State of Arizona as a Land Surveyor. Work is performed under the general supervision of the Chief Land Surveyor who reviews work through reports, results achieved, conferences, and on-site observation, checking for production, accuracy, timeliness, and completeness. This class is FLSA nonexempt.

QUALIFICATIONS

Employee Values: All employees of the City of Mesa are expected to uphold and exhibit the City’s shared employee values of Knowledge, Respect, and Integrity.

Minimum Qualifications Required. Graduation from high school or GED. Any combination of training, education, and experience equivalent to at least three years of land surveying experience.

Special Requirement. Must possess a valid Class D Arizona Driver’s License by hire or promotion date.

Substance Abuse Testing. Due to the safety and/or security sensitive nature of this classification, individuals shall be subject to pre-employment or pre-placement alcohol, drug, and/or controlled substance testing as outlined in City policy and procedures.

Preferred/Desirable Qualifications. Supplemental coursework in civil engineering and surveying as well as National Society of Professional Surveyors (NSPS) – Certified Survey Technician (CST), Level II or Land Surveyor in Training (LSIT) are preferred. Experience in Microsoft Excel, AutoCAD, and Geographic Information Systems (GIS) are desirable.

ESSENTIAL FUNCTIONS

Communication: Communicates with the public, engineers, other City employees, vendors, and contractors to prepare for and carry out surveying operations and assignments. Ability to maintain concentration, accuracy, and ethical behavior. Ability to work well with coworkers, managers, business partners, and the public. Ability to always maintain a professional demeanor.

Manual/Physical: Ability to work in office and field conditions, including outdoors in all types of weather, on or near a roadway, in a construction zone, or in an isolated desert environment. Must be able to work in an office environment for extended periods of time. Must be able to be on feet (standing, walking, and/or hiking) throughout the entire workday. Must have manual dexterity of hands and body to lift, carry, push, and/or pull 30 lbs. Dig holes up to 3 feet deep using shovel, pick, digging bar, and/or other tools. Must be able to operate motor vehicles, with a standard Class D Arizona Driver's License. Must be able to handle multiple and complicated tasks and have prompt decision-making skills in times of pressure and high work volumes. Distinguishes colors to determine markings for utilities. Detects traffic sounds when working near moving traffic, backup warning devices when working around moving equipment, and sirens or other warning signs when working in and around traffic and construction equipment. Sets up barricades, traffic cones, or flag tree to class or reroute traffic lanes as necessary. Inspects, monitors, and evaluates information to identify proper conditions and equipment needed for work assignments to determine compliance with prescribed operating and safety standards that apply to specific projects to be undertaken. Uses common hand tools, such as a hammer, saw, screwdriver, axe, brush hook, shovel, pick, etc., to carryout assignments as the situation dictates Moves survey instruments and supporting equipment from one place to another using Global Positioning System (GPS), Total Stations, levels, rods, cones, stakes, or hammers. Digs up ground using a pick, shovel, or spade to locate property corners, manholes, valves, or to set stakes, etc. Works with paints or spray paint cans, using normal protective equipment. Ensures truck is clean, fueled, and stocked with material for daily requirements. Meets scheduling and attendance requirements.

Mental: Plans prioritizes and organizes own land survey work assignments. Resolves procedural and operational problems, including conflicts in plans, errors in work, etc. Coordinates work activities and program functions to complete assignments in specified time period with other City departments, other cities, county, SRP (Salt River Project), or other utility companies. Coordinates with general contractor and the public, at times under adverse conditions, for a timely completion of work assignments. Conducts research and analyzes data such as property descriptions, maps, plans, records, ties, etc., to carry out assignments in a professional manner and according to the law. Performs mathematical calculations and statistical computations to complete land surveying assignments. Comprehends and makes inferences from written material, such as legal descriptions, land survey requests, construction plans, plats, etc. Understands and interprets construction plans, schematic drawings, layouts, graphs, profiles, or contours. Learns job-related material through on-the-job training regarding modern equipment and procedures.

Knowledge/Skills/Abilities:

Knowledge of:

field to finish land survey methods and techniques;
traffic safety requirements and procedures;

civil engineering and land survey terminology; and the concepts of algebra, geometry, and trigonometry.

Skill in:

The use and care of optical and electrical land surveying instruments and equipment; and the use and care of computers and common computer programs (example: Word, Excel, Google Earth, etc.).

Ability to:

organize and prioritize projects;
understand land surveying procedures and the use of instruments;
stake and direct the staking of retention basins, streets, curbs and gutters, sidewalks, underground utilities (examples: water, gas, sewer, storm, etc.), culverts, catch basins, rights-of-way, property lines, and other construction features;
perform boundary and topographical surveys to locate, by relative position and elevation, physical features and property lines;
keep field notes and compute areas, distances, and volume;
make field sketches and computations necessary to record field observations and data;
check measurements and computations made by office personnel;
survey new construction projects and record measurements and changes onto a set of “as-built” plans;
set right-of-way markings and property corners;
read construction plans and specifications;
operate survey instruments and perform the range of tasks common in land survey work;
read and interpret standard details and specifications;
maintain and be accountable for expensive land survey equipment, radios, and a survey truck;
communicate with supervisors, inspectors, and other departments, using a cellular phone, to relay status, situations, and instructions; and
establish and maintain effective working relationships with management and other personnel.

The duties listed above are intended only as general illustrations of the various types of work that may be performed. Specific statements of duties not included do not exclude them from the position if the work is similar, related, or a logical assignment to the position. Job descriptions are subject to change by the City as the needs of the City and requirements of the job change.

Revised 5/24

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EEO-Tech

JOB FCTN-TEC

INCREMENTS 38-200

PAY GRADE: 49

IND-9410

SWORN-No