The Maryland-National Capital Park and Planning Commission

TITLE: Land Survey Technician GRADE: 14 DATE: 1/12/2017
SERIES: Design & Construction CODE: 3110 EEO: Technicians FLSA: Nonexempt

Class Definition:

Under close supervision, performs entry level land survey support work involving limited responsibility, complexity and variety in support of field survey functions and directly related office and computer work; builds knowledge and skills by learning to perform the full range of tasks, and use the full range of tools, of the trade. Duties include routine survey tasks such as assisting in field surveys utilizing survey tools, and performing office work to include using computer to access Global Information System (GIS), tracking utility requests and performing property searches. Developmental level assignments to build knowledge and skills and further support surveys are assigned as deemed appropriate. The work contributes to the accuracy, adequacy, timeliness and other facets of land survey products. Applies some knowledge of, and ability to learn more about and use, the principles, methods, practices and equipment of land survey operations. Follows procedures and applies standard solutions to a range of common or recurring problems. Interacts with people inside the organization (primarily) to exchange routine information. Performs other duties, as assigned.

Assignments are made in terms of specific instructions. The incumbent carries out the work step-by-step in strict adherence to established policies and procedures, resolves routine work problems by selecting and applying the appropriate guideline(s), and brings new or uncommon problems to the supervisor, or a more experience Land Survey Technician, for guidance or resolution. The work is subject to check in process and upon completion for conformance with instructions and other guidelines, quality, quantity, timeliness, teamwork, customer service and other factors.

Examples of Important Duties:

1. Performs land survey support including field duties using hand tools such as axes, machetes, shovels, levels, measuring tapes, and surveyor's tape. Operates prism pole, sets up Global Positioning System (GPS) equipment and portable units. Sets benchmarks, traverse points, property corners, and other points of reference. Sets up survey instruments such as total station. Clears brush and trees to provide clear line of sight. Uses understanding of break lines, field codes, forestry, utilities and other items to accurately locate these on a topographic plan.

2. Tracks Miss Utility requests.

3. Operates equipment to help locate utilities such as electrical, telephone, cable, fiber optic lines, sewer and water lines, storm drains, natural or liquid gas lines, and marks them with appropriate colors pursuant to industry standard. Sets benchmarks, traverse points, property corners and other points of reference, as instructed.

4. Uses computer to access and use databases. Views work requests and maintains work log. Performs property searches from database and performs calculations and computerized data

collection. Learns to read plats, plans and to use computer aided design and drafting (CADD) hardware and software for survey-related tasks.

5. Uploads and downloads critical field data between computer and data collector. Accesses GIS to obtain aerial information pertaining to work sites and prints vicinity maps with addresses of sites. Performs real property searches from the State of Maryland database.

6. Operates a motor vehicle to transport survey crew to and from various work sites on a regularly recurring basis. Maintains and cleans survey vehicle and stocks it with such items as stakes, marking paint, flagging, and other related supplies. Maintains inventory of supplies, pipes, stakes, caps, witness posts, paint, and other items.

7. Performs general office duties; maintains files and records, researches maps and grids to obtain readings; answers phones and retrieves messages.

8. Utilizes computer to access and coordinate with database; views work requests, prints requests and maintains log of work completed, staff and hours.

9. Performs calculations on scientific calculator and computerized data collection devices to include calculation and conversion of angles and distances and converting hours, minutes, and seconds to decimal degrees.

10. Uses a computer modern office suite software (such as MS Office), enterprise software and specialized software to plan or schedule, communicate (email), word process (light word processing only), manipulate data, prepare land survey products, conduct research (Internet), report time and attendance, and perform other functions.

<u>Important Worker Characteristics:</u>

A. (1) Some knowledge of, and ability to learn more about and use, principles and equipment of land survey operations including electronic total station, automatic level, utility location instruments, GPS equipment, metal detector, electronic data collector or microcomputer, calculator, theodolite, transit, compass, radios, utility location instruments, and other survey tools and equipment.
(2) Some knowledge of, and ability to learn more about and use, CADD hardware and software.
(3) Some knowledge of, and ability to learn more about and use, basic algebra, trigonometry and geometry in land survey problems.
(4) Knowledge of field safety procedures.
(5) Knowledge of Commission organization, policies, and procedures.*

**Typically acquired or fully developed primarily after employment in this job class.*

B. Skill in problem solving to select, organize and logically process relevant information (verbal, numerical or abstract) to solve a problem. Examples include operating a variety of field and office equipment and applying a variety of elementary mathematical formulae to straightforward land survey problems such as elevations and angles.

C. Skill in communication to understand verbal and written information (including facts, descriptions and ideas) and to express such information so that others will understand.

D. Interpersonal skills to interact effectively with business contacts in a businesslike, customer service-oriented manner; this includes skill in establishing and maintaining effective working relationships and working as a member of a team.

E. Skill in using a computer, modern office suite software (such as MS Office), enterprise software and specialized software.

F. Proficiency in rendering, and willingness to provide, first aid and CPR.

Minimum Qualifications (MQs):

1. A high school diploma or a Certificate of General Educational Development (GED).

2. One year of experience in land or marine surveying that demonstrates ability to learn to perform the full range of the tasks of the trade.

3. An equivalent combination of education and experience may be substituted.

4. Must pass Commission medical examination.

5. Valid driver's license in accordance with both State and Commission rules and regulations. Driver's license must be unencumbered by restrictions, revocations, suspensions, or points that could limit the employee's ability to drive Commission vehicles or perform driving duties required by the position of assignment.

Working Conditions:

Works in indoor and outdoor settings. On a regularly recurring basis, moves, bends and stoops or otherwise positions self, and transports and operates equipment. Lifts, carries or otherwise moves and uses objects weighing up to (or requiring force of) 49 pounds on own and heavier objects with assistance or mechanical advantage. Is regularly exposed to continuing periods of extremely inclement weather such as heavy rain and very high winds, extremely hot, cold or humid outdoor conditions and a variety of potential hazards from driving and working in the field or nearby moving traffic. Maintains situational awareness, adheres to established safety procedures, takes care and wears personal protective equipment to minimize potential hazards to self. May be subject to various job demands such as high volume of work and tight deadlines.