



Office of Human Resources
GIS Technician – CD1738
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General Statement of Duties

Performs standard level technical support work compiling, verifying, maintaining and inputting information into multiple databases; utilizes Geographic Information System (GIS) software and hardware to digitize and enter data. Performs entry level Information Technology (IT) technical work supporting desktop, legacy system, database, and/or IT GIS functions. Generates schematics, maps and plats from data in order to provide information regarding different infrastructure systems.

Distinguishing Characteristics

This is the first class in a three class series. The main responsibilities for the GIS Technician involve collecting, translating, and maintaining data within multiple databases. The GIS Technician is distinguished from the GIS Analyst because this position is responsible for performing standard level statistical and spatial analysis and GIS mapping. A GIS Technician may perform basic geographic analysis and map production under well established guidelines where work in under continual review.

GIS Technician is distinguished from the Senior GIS Analyst because this position is responsible for performing full-performance level statistical and spatial analysis. The responsibilities for Senior GIS Analyst include working with more complex types of data, which involves using multiple modeling techniques to create geospatial surfaces. The Senior GIS Analyst is responsible for designing new databases and developing new methods of representing data. In addition, the Senior GIS Analyst is responsible for developing and recommending standards for GIS data development and cartography. Finally the Senior GIS Analyst is responsible for training employees/users in GIS concepts.

Essential Duties

Digitizes information and creates, maintains, updates, queries and views GIS data to provide easier access and retrieval of processed information on multiple databases to support valid statistical analysis and accurate map, plat and schematic making utilizing methodologies such as trace digitizing, coordinate geometry (COGO), surveyor notations and graphic input in digital formats and legal descriptions.

Creates accurate grid references utilizing appropriate GIS software, coordinate geometry and graphics to correspond with the information and/or design drawing, legal surveys, maps and addresses needed to update information for infrastructure mapping.

Creates, updates and maintains spatial data using digitization, COGO and other scanning techniques and ensures data accuracy.

Interprets and prepares data such as field notes, plats, legal descriptions and address information for use in analyzing data and updating maps.

Verifies, corrects and updates GIS data layers and databases utilizing coordinate geometry and graphics to correspond with the information on design drawings, maps, plans and reports and prepares and maintains metadata for all spatial data layers and databases.

Converts hardcopy-engineering drawings into electronic formats.

Assists and provides interested parties with specific processed spatial data including reports, maps and charts.

Compares field and office mapping to resolve incongruous information issues, and may utilize Global Positioning System (GPS) or wireless GIS systems to collect or verify the accuracy of the GIS data.

Creates and updates various map types using planimetric and thematic mapping techniques and aerial and satellite data, and maintains map collections.

Utilizes vector or grid overlay techniques to generate new GIS layers from existing ones.

Under instruction, installs, reviews and maintains desktop software and spatial database connections.

Assists GIS users with IT questions for retrieving GIS information.

By assignment maintains computerized inventory of electronic field equipment and specialized services for users.

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 of 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

Attention to Detail - Is thorough when performing work and conscientious about attending to detail.

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.

Reading - Understands and interprets written material, including technical material, rules, regulations, instructions, reports, charts, graphs, or tables; applies what is learned from written material to specific situations.

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.

Spatial Reasoning - Knows one's location in relation to the environment; determines where other objects are in relation to one's self (for example, when using a map).

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

Knowledge & Skills

Knowledge of computer systems sufficient to be able to perform a variety of duties related to the work assignment.

Knowledge of databases sufficient to be able to perform a variety of duties related to the work assignment.

Knowledge of GIS and GIS software sufficient to be able to perform a variety of duties related to the work assignment.

Knowledge of information technology hardware and software sufficient to be able to perform basic functions and troubleshoot problems.

Skill in comparing two or more sources of information for consistency.

Skill in constructing and interpreting maps and grid references.

Skill in examining information related to the work assignment for completeness, correctness and accuracy.

Skill in using computers for data entry and retrieval.

Skill in using desktop computer software for data entry and retrieval.

Skill in utilizing a geographical database.

Skill in visual speed and accuracy sufficient to learn new information regarding information technology.

Ability in numerical reasoning sufficient to learn new information regarding information technology.

Ability in reasoning sufficient to learn new information regarding information technology.

Ability in symbolic reasoning sufficient to learn new information regarding information technology.

Level of Supervision Exercised

None

Education Requirement

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

Experience Requirement

Four (4) years of hands on experience working with geographical or land information systems to input and present agency or client data.

Education & Experience Equivalency

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

Licensure & Certification

None

Working Environment

Subject to many interruptions.

Pressure due to multiple call and inquiries.

Level of Physical Demand

1-Sedentary (0-10 lbs.)

Physical Demands

(Physical Demands are a general guide and specific positions will vary based on working conditions, locations, and agency/department needs.):

Accommodation: Ability to bring objects into focus.

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.

Fingering: Picking and pinching, through use of fingers or otherwise.

Handling: Seizing, holding, grasping, through use of hands, fingers, or other means.

Hearing: Perceiving and comprehending the nature and direction of sounds.

Lifting: Moving objects weighing no more than 100 pounds from one level to another.

Reaching: Extending the hands and arms or other device in any direction.

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

Education Check

Employment Verification

By position, Motor Vehicle Record

Assessment Requirement

None

Probation Period

Six (6) months.

Class Detail

Pay Grade: NE-10

FLSA Code: N

Established Date: 9/21/2018

Established By: LS

Revised Date: 9/8/2024

Revised By: SO

Class History: 9/21/18 - Changed the job code to general administrative; 9/8/24 – Revised Job Family/Job Code.