**GIS (GEOGRAPHIC INFORMATION SYSTEM) TECHNICIAN**

**JOB DESCRIPTION**

Classification Responsibilities: A GIS (Geographic Information System) Technician is responsible for

inputting, updating, and maintaining GIS databases, and coverages, layers, and linkages to various

databases. Duties may include: preparing detailed maps using ESRI technologies (ArcGIS desktop)

and/or AutoCAD software; inputting and reviewing GIS data for completeness, accuracy, and neatness;

creating map layouts and views of moderate difficulty and complexity; conducting geoprocessing

operations and database queries; performing digitizing; conducting mapping research in the field and in

the office to resolve conflicting information; and interpreting plans, plats, and legal descriptions. This

job performs related duties as required.

**Preferred/Desirable Qualifications.** Experience using ESRI ArcGIS desktop (ArcInfo, ArcEditor, and

ArcView), ArcFM, ArcGIS extensions, RouteSmart, MapInfo, Intergraph, AutoCAD, Trimble RTK GNSS, Microsoft Access, or Microsoft Excel.

**ESSENTIAL FUNCTIONS**

One position may not include all of the essential functions, knowledge and abilities listed, nor do the

listed examples include all the knowledge and abilities which may be found in positions of this

classification.

Communication: Communicates with the customers, other Unitek employees, or others in order to

establish the specific needs of work requests and identify workflow problems. Prepares written

documents with clearly organized thoughts and using proper sentence structure, punctuation, and

grammar, in order to document work completed, problems inputting data, and status reports.

Manual/Physical: Distinguishes colors to input GIS data. Operates a motor vehicle requiring a valid

Class A Guam’s Driver’s License to make field inspections and field checks on completed work (by

assignment). Monitors terminal graphics and messages to determine compliance with digitizing

procedures. Measures distances using a tape measure or calibrated instruments. Moves objects of up to

50 pounds or more such as: roll paper, paper cartons, digitizing tablets, etc., for distances of up to 150

feet. Creates charts, schedules, graphs, maps, presentation graphics, etc. Uses a variety of cleaning

fluids, such as toners and clear dispersant, to clean equipment. Operates a variety of office equipment,

such as a personal computer (PC), printer, etc., to enter data or information for studies, projects, and

work assignments. Prepares reports, plans, and maps for distribution to consultants, contractors, and

other City employees. Meets scheduling and attendance requirements.

Mental: Interprets work plans (examples: as-builts, construction, site plans, blueprints, etc.).

Prioritizes work assignments. Comprehends and makes inferences from written procedures and

specifications. Conducts research to properly identify information from data and plans. Performs

mathematical calculations, statistical computations, and applies fractions, percentages, ratios and

proportions, algebra, geometric constructions, and the essentials of trigonometry. Learns to do the

following: digitize data conversions; utilize data for map layout and plotting, and update maps as new

information is obtained; operate a computer workstation for inputting data used to create maps; prepare map products on a computer workstation; conduct spatial analysis; perform database queries; identify and document problems; understand procedures, terminology, and the use of system menus and operational system panels; determine the accuracy of source information for building a map; perform detailed records research; apply research to ensure the precision, accuracy, and completion of GIS maps; create new mapping products and determine command sequence to quickly convey information; and become familiar with the procedures regarding input of GIS data standards.

Knowledge and Abilities:

Knowledge of fundamental GIS concepts to formulate and prepare spatial analysis, drawings, maps, and plans; cartography and the basic symbols and terminology used in mapping; modern office practices, procedures, equipment, and supplies; and maps, plans, databases, and records.

Ability to:

Prepare neat and precise maps from plans, sketches, verbal descriptions, and specifications;

act as a contributing member of a project team; maintain a high level of attention to detail for quality control purposes; maintain effective documentation and system backups of maps and data;

assist in providing data and maps for detailed operation analysis; apply results of analysis to ensure accuracy and completion of map and related data profiles; become familiar with industry-specific terminology and symbology such as fire, water, wastewater, conduit/fiber, gas, storm drain, or planning and zoning; learn the existing GIS system; and establish and maintain effective working relationships with management, coworkers, and the general public.

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.