LAND INFORMATION SYSTEMS ANALYST

FUNCTION OF THE JOB

Under direction, to perform complex, professional work in the implementation, maintenance, administration, and analysis of the Countywide computerized, integrated land information system; and to perform other duties as required.

CHARACTERISTIC DUTIES AND RESPONSIBILITIES

- 1. Supports and assists in the development, planning, implementation, administration, and maintenance of a computerized, integrated, Countywide land information system.
- 2. Develops and maintains detailed standards and specifications for the operation of the system, including database administration, data input, storage, retrieval, and how various layers of land information will be combined and presented.
- 3. Analyzes land information data and user needs and makes recommendations regarding the most effective system design, and most appropriate geoprocessing hardware and software upgrades; implements approved recommendations.
- 4. Administers and maintains the Geographic Information System servers including software installation and maintenance, user permissions and access, performance monitoring of hardware, network and internet, data archiving, backup, and support.
- 5. Interprets and plots new and existing land information data; creates and maintains land information attribute features; researches and works with tax listing staff to resolve legal description and survey discrepancies.
- 6. Develops, maintains, and troubleshoots geographic information system (GIS) client applications including analyzing and interpreting functional requirements and specifications, site design, integration with other systems and workflows, oversight of contractors, and maintenance of the land information internet applications.
- 7. Processes digital map data and other land information from internal and external sources to incorporate into the GIS including data quality control, cleanup, and standardization.
- 8. Creates and maintains multiple geodatabase system designs and maintains and updates various geographic data layers.
- 9. Coordinates the process for assisting multiple municipalities in cadastral mapping efforts including the import and export of required data, and the creation of automated scripts to facilitate data exchange.
- 10. Provides information for custom data requests and other special projects including collection, compilation, and conversion of a wide variety of data from various sources, and creates reports, tables, and display maps.
- 11. Provides technical support for Geographic Information System to users in other departments, government agencies and commercial entities by providing land information data, training, project design assistance, troubleshooting aid, and application design assistance as appropriate.
- 12. Assists users in workflow analysis, design, and implementation to incorporate GIS data and to maintain datasets; assists users in the development of mapping products and processes.
- 13. Develops computer programs and scripts for the maintenance and automation of Geographic Information System data, applications, and processes.
- 14. Prepares and maintains detailed records, reports and documentation regarding GIS database and application workflows, models, and processes.
- 15. Establishes and maintains effective working relationships with staff, other departments, municipalities, government agencies, and commercial entities which utilize land information.
- 16. Performs other duties as required.

QUALIFICATIONS

Essential Knowledge and Abilities

- 1. Comprehensive knowledge of geographic information systems and their operation, uses, and requirements, including knowledge of client/server relationships, cloud-based virtual server architecture, deployment, administration, backup, upgrades and GIS software installation.
- 2. Comprehensive knowledge of spatial database design and maintenance, land information computer programming, and mapping.
- 3. Comprehensive knowledge of the types, uses, and interrelationships of a wide variety of land information.
- 4. Considerable knowledge of project management methods and practices.
- 5. Considerable knowledge of the principles and practices of cartography and geography.
- 6. Considerable knowledge of the principles, practices, and laws of land surveying and land recording systems.
- 7. Working knowledge of the collaboration between governmental, commercial, and nonprofit entities which utilize land information. This includes an understanding of their data needs and requirements as well as their working relationships.
- 8. Ability to analyze and evaluate complex data and systems, make recommendations, and implement solutions.
- 9. Ability to create, maintain and update various applications, maps, and spatial data using geographic information systems software and equipment.
- 10. Ability to perform technical research work and analyze data used in land information projects.
- 11. Ability to read and interpret maps and aerial photography.
- 12. Ability to implement a project, including evaluation, design, communication, and training.
- 13. Ability to communicate effectively both orally and in writing.
- 14. Ability to write clear and concise reports.
- 15. Ability to make effective presentations.
- 16. Ability to establish and maintain effective working relationships with staff, other departments, municipalities, government agencies, and commercial entities which utilize land information.
- 17. Ability to effectively interact with sensitivity with persons from diverse cultural, socioeconomic, educational, racial, ethnic, and professional backgrounds, and persons of all ages and lifestyles.

Training and Experience

- 1. Bachelor's degree from a recognized college or university in geography, geographic information systems, land use planning, computer science, or closely related field.
- 2. Two (2) years of progressively responsible work experience in geographic information systems, cartography, surveying, land use planning, geographic or other land-information computer programming,; or closely related field.