

Geographic Information Systems Administrator Tompkins County

Department: Information and Technology Services Department

Classification: Competitive

Labor Grade: 16

Approved: GIS Project Leader Reclassification 1997

Revised: 12/97; 6/01; 11/14; 1/15

By: AF, Commissioner of Personnel

MINIMUM QUALIFICATIONS:

(a) Graduation from a regionally accredited or New York State registered college or university with a Masters degree in Natural Resources, Geography, Photogrammetry, Cartography, Regional Planning, Public Administration, or related field **AND** five years of full-time paid experience involving geographical information system policy, planning, and/or development, two years of which must have been in a supervisory capacity; **OR**

(b) Graduation from a regionally accredited or New York State registered college or university with a Bachelor's degree in Natural Resources, Geography, Photogrammetry, Cartography, Regional Planning, Public Administration, or related field **AND** seven years of full time paid experience involving geographical information system policy, planning and/or development, three years of which must have been in a supervisory capacity; **OR**

(c) Any combination of training and experience equal to or higher than that described in (a) and (b) above.

Tompkins County is Committed to Equity and Inclusion. We encourage those with similar values to apply.

DISTINGUISHING FEATURES OF THE CLASS:

This position is responsible for the formulation of policies, business practices, and the overall development and management of the County's Geographic Information Systems (GIS) Program. The incumbent will supervise related technical activities, and provide for the planning and implementation of County-wide GIS infrastructure, system design, projects, and applications. The GIS will include computer systems, cartographic, photogrammetric, and spatial information and related data. The incumbent will develop agreements, contracts and systems for acquisition and/or use of this information. The GIS Administrator will work with County departments and other external agencies to implement programs and procedures incorporating the use of GIS technology and spatial information into their operations, and to ensure that data can be interfaced and shared in an appropriate and cooperative manner. This position will act as a representative within the GIS community and will assist in the coordination of regional and New York State based GIS initiatives. The work is performed under the general supervision of the Director of Information Technology Services with allowance for considerable autonomy and independent judgment when carrying out the responsibilities of the position. Supervision is exercised over the work of GIS Specialists, GIS Analysts, GIS Technicians, and other support staff. The incumbent will perform other related duties as required.

TYPICAL WORK ACTIVITIES:

- Coordinates County-wide GIS programs involving the cooperation and participation of County, municipal and private agencies;
- Coordinates departmental and intergovernmental committees related to the design, development, population, and use of GIS databases and related cartographic issues;
- Develops and implements contracts related to GIS projects, data acquisition, and other related GIS activities with County departments, other public entities, and private agencies;
- Works with state and local public officials as well as private agencies to explore program opportunities in support of local GIS cartography and databases;
- Coordinates with the Assessment Department for the scripts and procedures used in the mapping and distribution of County Tax Maps and property related information internally, inter-municipally, and to support public applications;
- Coordinates with the Director of Information Technology Services for the maintenance and export of GIS data products used in County Enterprise Wide Application to support county clerk property information and environmental health applications;
- Coordinates with the Department of Emergency Response for the maintenance, configuration and synchronization of GIS datasets and mapping products used in the Public Safety System currently and in the future;

- Coordinates with the Public Safety Systems Administrator in the upgrade, maintenance and troubleshooting of GIS specific hardware, software, and configuration used in the Public Safety System;
- Coordinates with the Public Safety Systems Administrator on requests made by members of LETSS for the retrieval of data from the Public Safety System and ad hoc mapping of incidents to support Public Safety investigations, search and rescue efforts, and data analysis efforts for internal and public applications and use;
- Oversees the development and maintenance of systems to provide GIS access by various County departments;
- Provides leadership and technical expertise in the development of GIS projects within various County departments and external organizations;
- Develops long-term plan applications, business practices and annual operating plans with input from various county departments, GIS staff, and external agencies;
- Develops and applies an evaluation strategy designed to improve the efficiency and operations of the GIS Program;
- Insures customer satisfaction, provides feedback to customers on status of requests;
- Communicates with dissatisfied customers to better implement future requests and solve immediate problems;
- Assists the Director of Information Technology Services with budgetary and other financial activities to secure operating and personnel resources to implement long range goals and annual objectives;
- Assists the Director of Information Technology Services in the research and preparation of applications for state, federal and private grants;
- Analyzes GIS user needs and system resources for the purpose of developing project specifications, flow charts, workflow diagrams, schedules, and programming from inception to conclusion;
- Incorporates current GIS management practices related to data acquisition and maintenance programs;
- Evaluates and makes recommendations on policy to improve the databases linked to the GIS;
- Develops and links databases pertaining to district boundaries, property, demography, infrastructure and related information to a county reference base map;
- Promotes procedures to standardize databases and protocols for inclusion into the County's geographic information system and data repository;
- Plans and oversees the procurement of aerial photography and GIS data for the support of mapping and cartographic functions;
- Develops and recommends policies to improve the accuracy of the County's reference base maps;
- Directly supervises GIS Specialists, GIS Analysts, GIS Technicians and other support staff assigned to the design, development, and production of GIS applications and techniques; Develops and maintains work production schedules;
- Develops and implements a curriculum for GIS training for staff within various County departments;
- Coordinates the work of support staff in providing analytical services to County departments;
- Promotes policies and systems for public access to County records and GIS data;
- Promotes the use and understanding of the Tompkins County GIS program and related technology through annual public information and educational campaign(s) including; public presentations, demonstrations, the writing of articles, and interaction with the community.

KNOWLEDGE, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS:

- Thorough knowledge of mapping, database and related software necessary to perform and supervise tasks associated with the design, development and maintenance of the County GIS;
- Demonstrated experience with GIS Server technology to support GIS web applications ESRI ArcGIS Server, ArcSDE, and Latitude Geographics Geocortex (or similar third party web application a plus);
- Thorough knowledge of principles and practices of geographic information systems development and planning;
- Thorough knowledge of methodologies and approaches in developing GIS applications for use by various County Departments;
- Thorough knowledge of the principles and practices of GIS applications in Public Safety Systems including; incident mapping, incident data analysis, Next Generation 911 (NG-911) and geocoding concepts;
- Thorough knowledge of advanced GIS and cartographic concepts and terminology;
- Thorough knowledge of GIS web mapping concepts and terminology;
- Excellent verbal and written communication skills; Good interpersonal skills necessary to communicate with diverse public interests to facilitate meetings and/or negotiate difficult issues pertaining to inter-municipal arrangements or county-wide GIS concerns;
- Ability to read and interpret scientific, technical and policy related reports;
- Ability to learn and keep up with new and emerging GIS and related technology;
- Ability to conduct independent research;
- Ability to plan and supervise the work of support staff;
- Ability to prepare well-constructed oral and written communications, reports, contracts, etc.;
- Ability to maintain good rapport with staff, state and local public officials and the general public;
- Ability to train GIS users and work effectively with people at different skill levels;

- Physical condition commensurate with the demands of the position.

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