



**City of Tigard
Finance & Information Services Department**

**Geographic Information Systems Program Administrator
Job Description**

DEFINITION

Under general direction, leads, manages, plans, implements, and administers the City-wide Geographic Information Systems (GIS) program. Evaluates and personally participates in the functions necessary to implement and sustain the creation, improvement, maintenance, and use of the GIS databases and applications. Oversees all aspects of the program's structure and design for effective use, both within the City and in coordination with outside public, regulatory, and public safety agencies, and business organizations. Ensures the expansion and maximization of GIS technology throughout many City departments. Performs related duties/work as required.

SUPERVISION RECEIVED AND EXERCISED

Receives general direction from the Finance and Information Services Director. Exercises direct supervision over assigned staff and may provide general supervision over contract consultants on a program and project basis.

CLASSIFICATION CHARACTERISTICS

This single-position class oversees all Geographic Information Systems for the City within general policy and procedural guidelines and has the ability to adapt specific program procedures and activities to meet the needs of the City, other agencies, and technological advances. This class is considered an enterprise position and serves as a member of the City's GIS Executive Committee in the formulation and implementation of management policies as they relate to the compilation of information and coordination of data integration through the City's GIS program. The incumbent interfaces with elected officials and executive-level staff in the formulation and implementation of GIS policies, including legislative activities, budgeting priorities, and the day-to-day operations and staffing needs within each of the City's departments. This class is distinguished from other information technology classes by the level of specialized technical knowledge of and emphasis on managing enterprise GIS resources, hardware, and software applications.

ESSENTIAL JOB FUNCTIONS

- Leads, manages, plans, and administers the development and implementation of the City-wide Geographic Information Systems (GIS) program.
- Develops, implements, and oversees strategic goals and objectives related to the City's GIS program.
- Works with elected officials and executive-level staff in the formulation of management policies concerning the compilation of information and coordination of data through the City's GIS program; coordinates and oversees the implementation of such policies.
- Coordinates with City department GIS representatives to identify, develop, and plan GIS projects and staffing needs, including coordinating and facilitating recurring GIS committee meetings.
- Develops and oversees GIS division budget; participates with IT and Finance and coordinates goals, objectives, and metrics of budget pertaining to GIS.
- Plans, prepares, and implements City-wide GIS Strategic Plan in coordination with departments; identifies department GIS needs; researches and determines equipment and technology costs; reviews GIS and IT technology for implementation; and, reviews industry GIS implementations and projects for comparison and possible integration into the City GIS Strategic Plan.
- Serves as a member of the regional GIS Infrastructure Group (GIG) representing the City in the formulation of GIS policy, data development, and data sharing affecting local and regional partners; participates in other external GIS related committee work acting on behalf of the City ensuring long-term, large-scale efficiencies of GIS data management and initiatives involving multi-agency cooperation.
- Participates in the selection of, motivates, and evaluates the work of assigned personnel; provides or coordinates staff training; works with assigned employees to correct deficiencies; implements discipline and termination procedures as necessary.

- Develops and designs standards and technical specifications for City-wide GIS systems; coordinates with other IT staff to develop information system solutions; designs technical GIS and data structures; programs automated applications for GIS users.
- Designs, develops, updates, maintains, and administers the City's GIS including components such as SDE/SQL database design and administration, desktop or web-based GIS application development, GIS and business system integrations, and GIS web-based solutions, including mobile, Responsive Web Design (RWD), such as those that enhance city online services initiatives to meet community needs.
- Performs and oversees a variety of professional-level GIS work, including modeling creating maps, preparing database environments, building applications, and developing graphic and related materials for internal and external clients.
- Serves as a technical resource to all City departments, including providing assistance and training in the proper use of GIS data and systems, and recommending, troubleshooting, and providing support for GIS software, databases, and other related applications; develop documentation and informational materials and train users in GIS applications.
- Attends meetings, conferences, workshops, and training sessions to become and remain current on principles, practices, and new developments in assigned work areas.
- Monitors changes in GIS technology and applications, recommends improvements and upgrades, and implements changes after approval.
- Responds inquiries from the public in a timely manner.
- Prepares a variety of written correspondence, reports, procedures, and other materials.
- Maintains accurate records and files related to the GIS function.
- Coordinates regularly with appropriate others to maximize efficiency of interdepartmental operations and activities.
- Identifies opportunities for improving GIS enterprise and service delivery.
- Attends and/or participates in meetings and conferences; Makes presentations to groups and individuals.
- Serves on or provides support to a variety of committees and user groups as necessary.
- Performs other duties as assigned.

Job and Conduct Requirements:

- Maintains regular job attendance and adherence to working hours, consistent with applicable policies.
- Complies with applicable city, state, local, and federal laws, rules, and regulations; Follows and maintains knowledge of all City policies and procedures.
- Observes safe work methods; reports safety, sanitary, and fire hazards immediately to supervisor and follows prescribed policies for safety.
- Maintains work areas in a clean and orderly condition, including securing equipment at the close of the workday.
- Provides needed information and demonstrations concerning how to perform certain work tasks to new employees in the same or similar class of positions.
- Participates effectively at regular team meetings using appropriate interpersonal skills and problem-solving skills and conflict resolution strategies.
- Maintains appropriate certifications and training, as required.
- Interacts thoughtfully and courteously with staff and community; Acts and resolves conflict in a professional manner.

JOB QUALIFICATIONS

Knowledge of:

- Principles, practices, methods, and techniques of GIS enterprise systems.
- The function and role of the City in developing and coordinating a broad-based GIS program with applications for City departments, public agencies, private clients, and the general public.

- Technology, hardware and software, and current applications related to GIS systems, including database management, mapping, web mapping, Responsive Web Design (RWD) and report generation and desktop publishing systems.
- Mapping, cartography, graphic design, and imaging techniques.
- Principles and practices of identifying technology needs and issues, researching and evaluating technology, applications, and the most effective courses of action, and implementing solutions.
- General principles of budgetary and contract administration and practices in a public agency.
- General principles of personnel management and techniques.
- Current developments, trends, and technologies within the GIS field.
- The capabilities, methods, technical standards, and programming languages of GIS technology.
- Programming logic and code for use in GIS web applications.
- Data systems, hardware, and software related to GIS, geo-databases, functions, and management.
- Database management concepts and structures, analysis methods, design, practices, and procedures.
- Computer and software applications related to the work including spatial data concepts and related functionality.
- Applicable Federal, State, and local laws, codes, ordinances, and departmental rules and regulations.
- Modern office practices and procedures, including the use of standard office/computer equipment.
- Fundamentals of writing and composition as it relates to publications and internet applications.
- English usage, grammar, spelling, vocabulary, and punctuation; business letter writing and the standard format for reports and correspondence.
- Research and reporting methods, techniques, and procedures.
- Record keeping principles and procedures.
- Techniques for dealing effectively with the public, contractors, and City staff, in person and over the telephone.
- Techniques for effectively representing the City in contacts with governmental agencies, community groups and various business, professional, educational, regulatory, and legislative organizations.
- Techniques for providing a high level of customer service to public and City staff, in person and over the telephone.

Skill in:

- Use of personal computers, various related software programs, and standard office equipment to produce documents and files, e-mail, use internet software and computer programs used by the City including MS Office Word, Excel, and PowerPoint.
- Programming tools and writing code for use in GIS Web applications, including Python, Visual Studio, and Flex Builder.
- Database management tools including SQL Server Management Studio.
- ESRI Arc products including ArcMap, ArcCatalog, ArcSDE, ArcGIS Server, and ArcPad.
- Internet and web server/reverse proxy (IIS).
- Budget and supervisory/personnel administration skills.
- Oral and written communication skills to understand written information (including instructions, descriptions, and ideas), and to express such information verbally and in writing so that others will understand and, at times, be convinced or persuaded.
- Active listening skills and interpersonal skills.
- Make accurate arithmetic, financial, and statistical computations.
- Conflict resolution skills and problem-solving skills/techniques to resolve issues.
- Organizational and time management skills to organize own work, set priorities, and meet critical time deadlines.

Ability to:

- Develop and implement goals, objectives, policies, and procedures related to the City's GIS program.

- Develop and administer a broad-based GIS program that includes effective database development, management and accessibility through internal local area network and the City's GIS website for a variety of City departments and public and private clients.
- Assess user needs and recommend appropriate hardware, software, and systems to meet these needs.
- Perform complex modeling, mapping, database maintenance, research and other GIS professional-level tasks.
- Design and create GIS data models, programs, and tabular data systems.
- Design and present GIS training programs to enhance user effectiveness of GIS applications and data.
- Apply knowledge of GIS technology to meet user's needs.
- Effectively supervise, train, guide, and provide direction for GIS staff, including developing and assigning project tasks to GIS staff, reviewing, evaluating, and ensuring quality of work performed and coordinate work aligned with Information Technology Division goals.
- Develop documentation and informational materials and train users in GIS applications.
- Interpret, apply, and explain technical materials to non-technical users; elicit user needs to develop and implement appropriate solutions.
- Interpret, apply, and explain Federal, State, and local laws, codes, regulations, and departmental policies and procedures.
- Understand the organization and operation of the assigned department and of outside agencies as necessary to assume assigned responsibilities.
- Prepare clear and effective written materials including reports, correspondence, and other written material; ability to write in a creative, descriptive, technical, and/or factual manner to intended audiences.
- Effectively conduct meetings, present information, and respond effectively to questions in one-on-one, small group, and large group situations to a variety of audiences.
- Effectively represent the City in meetings with governmental agencies, community groups, and various businesses, professional, and regulatory organizations and in meetings with individuals related to GIS.
- Analyze situations and identify pertinent problems/issues; collect relevant information; evaluate realistic options; and recommend/implement appropriate course of action.
- Organize and prioritize a variety of projects and multiple tasks in an effective and timely manner.
- Operate modern office equipment including computer equipment and specialized software applications programs.
- Comprehend and use English effectively including producing all forms of communication in a clear, concise, and understandable manner to intended audiences.
- Use tact, initiative, prudence and independent judgment within general policy, procedural, and legal guidelines.
- Establish, maintain, and foster positive and harmonious working relationships with those contacted in the course of work including community members.
- Adapt to quickly changing plans, priorities, and circumstances.
- Understand, interpret, and respond to internal and external customer needs and expectations.
- Plan, organize, and carry out assignments with minimal direction.
- Remain open to and consider others' ideas and contribute to building a positive team spirit.
- Identify and appropriately address safety and security threats.
- Maintain appropriate certification and training as required.

MINIMUM QUALIFICATIONS

Minimum Education/Experience Requirements:

Any combination of training and experience, which would provide the required knowledge, skills and abilities, to perform the essential functions of the position, may be qualifying. A typical way to obtain the required qualifications would be:

- Equivalent to graduation from an accredited four-year college or university with major coursework in geographic information systems, geography, computer science, public or business administration, or a related field, and
- A minimum of three (3) years' professional experience in the development of geographic information systems (GIS), including responsibility for GIS program administration, GIS systems analysis, and GIS database development, with one (1) year in a public agency.

Preferred Qualifications:

- Supervisory experience preferred.

License and Certification Requirements:

- Possession of a valid driver's license with a clean/satisfactory DMV driving record report.

WORKING CONDITIONS

Work Environment:

The duties for this job will be performed primarily in an office environment with moderate noise levels, controlled temperature and ventilation conditions, and rare to no direct exposure to hazardous physical substances. The duties for this job may require interaction in difficult interpersonal situations with both staff, public, and/or external representatives in interpreting and enforcing departmental policies and procedures.

Physical Demand/Manual Dexterity:

The duties for this job require mobility to work in a standard office setting and use standard office equipment, including a computer; vision to read printed materials and a computer screen; and hearing and speech to communicate in person, before groups, and over the telephone. May be required to operate a motor vehicle to visit various city and meeting sites. This is primarily a sedentary office classification although standing in work areas and walking between work areas may be required. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate standard office equipment. Positions in this classification occasionally bend, stoop, kneel, crouch, reach, and push and pull drawers open and closed to retrieve and file information. Employees must possess the ability to lift, carry, push, and pull materials, supplies, and objects weighing up to 40 pounds as well as stand, sit, use hands for fine manipulation, handle or feel and reach with hands and arms. The employee may occasionally climb stairs. Specific vision abilities required by this job include close vision, distance vision, ability to adjust focus, and peripheral vision.

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Management is receptive to receiving requests from employees for accommodations related to disability, will engage in the interactive process with employees who make such requests and, where accommodation is needed and reasonable, is committed to providing accommodation, unless doing so would impose an undue hardship on the operation of the business.

Revision:

February 2015: update to reflect current requirements as a result of review of GIS function