

GEOGRAPHIC INFORMATION SYSTEMS (GIS) ANALYST

Job Summary:

Under general supervision, provides analysis and recommendation on GIS; provides professional computer mapping and database preparation; creates and maintains Windows-based and Internet-based mapping applications; assists engineering with operations and maintenance of the pavement management system; interfaces GIS with the City's permitting systems; oversees the collection, storage, and use of City asset data for GASB 34 compliance.

Essential Duties and Responsibilities:

(These functions are representative and may not be present in all positions in the class. Management reserves the right to add, modify, change or rescind related duties and work assignments.)

1. Performs administrative and other related duties in support of MIS management.
2. Performs GIS-based analysis and manipulation of databases to support a variety of city operations.
3. Designs and produces high-quality cartographic output suitable for publication and public display.
4. Translates GIS related needs of various City departments into specifications and develops solutions & applications using GIS and other tools.
5. Develops and maintains Windows-based and Internet-based GIS applications and equipment.
6. Acquires, maintains and edits geographic and tabular data.
7. Trains and supervises interns and staff on GIS and GIS related applications.
8. Assists in demonstrations of GIS for city departments and other agencies.
9. Troubleshoots GIS applications.
10. Uses GPS unit for collection of data and trains others on GPS use.
11. Maintains both hard copy and digital land base for the City.
12. Prepares reports and correspondence; may prepare Council agenda items.
13. May assist departments with their Web pages and Internet applications.
14. Performs related duties as required.

Qualification Guidelines:

A typical way to obtain the requisite qualifications to perform the duties of this class is as follows:

Education and/or Experience:

Bachelor's degree in geography, engineering/computer science or related field and three (3) years of full-time, paid experience in geographic information systems. Experience and/or education in a related field may be substituted on a year for year basis.

Knowledge of:

- GIS principles, including topology and geodatabases.
- Principles of statistics and geography.
- General programming principles, including Internet applications.

- Usage of global positioning system (GPS).
- ArcGIS, ArcIMS and other GIS related software.
- Digital mapping, data conversion, and graphic display.
- Cartographic techniques.
- City organization, operations, policies and objectives.
- Training and supervision principles.
- Personal computer software and hardware.
- Office practices and procedures.
- General record keeping practices.
- Research, statistical and analytical methods.
- Effective methods of report presentation.

Skill and Ability to:

- Monitor a land-based database system.
- Use plotters, digitizers, scanners and cameras.
- Review and analyze GIS computer needs.
- Effectively communicate in writing and orally.
- Maintain accurate records and prepare clear and concise reports.
- Identify and analyze problems and take effective corrective action.
- Compile, analyze and evaluate data.
- Effectively communicate orally and in writing.
- Establish and maintain effective working relationships with others.
- Make effective oral presentations.
- Operate computers and related software.

License:

Possession of a valid California Class C driver's license. Employees in this classification will be enrolled in the Department of Motor Vehicles (DMV) Government Employer Pull Notice program which confirms possession of a valid driver's license and reflects driving record.

Physical Requirements and Working Conditions:

Employee accommodations for physical or mental disabilities will be considered on a case-by-case basis. Positions in this class normally:

- Require vision (which may be corrected) to read small print.
- Perform work which is primarily sedentary.
- Require the mobility to stand, stoop, reach and bend.
- Require mobility of arms to reach and dexterity of hands to grasp and manipulate small objects.
- Is subject to inside environmental conditions.
- May be required to work at a computer terminal for prolonged periods.
- May be required to attend periodic evening meetings and/or to travel within and out of city boundaries to attend meetings.
- May be required to use city and/or personal vehicle in the course of employment.
- May be required to work evenings or weekends.