

# LIVINGSTON COUNTY JOB DESCRIPTION

## GIS ADMINISTRATOR

**Supervised By:** Systems and Applications Manager  
**Supervises:** Serves as lead for GIS staff  
**Department:** Information Technology  
**FLSA Status:** Exempt

### **Position Summary:**

Under the supervision of the Systems and Applications Manager, this position acts as the system administrator for the GIS environment, responsible for performing ~~a variety of technical~~ tasks involving the development, maintenance, and management of various enterprise GIS systems and data, including ArcGIS Enterprise, ArcGIS Online, and Cityworks. The GIS Administrator leads the work of GIS staff including scheduling, assigning, monitoring, and approving work products. The position also creates, maintains, and administers the County's enterprise Geographic Information Systems (GIS) environment. The GIS Administrator performs GIS data file management including data schema, creation of the layers of data, organization of the data files and management of the storage of such data. Provides direction to County departments and local units of government in special projects and provides technical assistance to GIS user departments.

### **Essential Job Functions:**

An employee in this position may be called upon to do any or all of the following essential functions. These examples do not include all of the duties which the employee may be expected to perform. To perform this job successfully, an individual must be able to perform each essential function satisfactorily.

1. Administers the county's ArcGIS Enterprise environment including the installation and configuration of server and workstation software, patches, and supporting components.
2. Administers the county's ArcGIS Online environment including the deployment of public facing as well as internal applications and map services.
3. Develops and deploys web-based geospatial solutions for public and internal county users such as GIS mapping applications and operations dashboards which result in ESRI licensing savings for the County and the bulk of local units.
4. Administers enterprise geodatabases within published and production SQL database environments.

5. Maintains ArcGIS Server based map services and Portal for ArcGIS based web maps required for Cityworks.
6. Maintains the Central Square CAD data for Central Dispatch, and Michigan's 911 GIS Data Repository (Next Gen 911).
7. Leads GIS staff, including scheduling, assigning, monitoring, and approving work product.
8. Leads, manages, and executes all GIS-related projects.
9. Maintains effective relationships with elected officials, other governmental units' staff, consultants, and vendors.
10. Performs GIS data file management including data input, creation of data layers, organization of the data files, and management of the storage of such data.
- 11.
12. Ensures that established GIS data standards are maintained including data collection techniques and data quality control, and that verification methodologies are followed  
Performs quality control of GIS data which is of critical importance because approximately 90% of collected, stored, and retained government data has a related geographic element(s).
13. Educates, promotes, and integrates GIS in other county departments, as well as local units of government and the public.
14. Participates as an integral part of the Emergency Management planning process. Should certain types of emergencies occur, will participate in the recovery process.
15. Develops, analyzes, and manipulates geospatial data, and related databases.
16. Performs all desktop GIS software installations and updates. Monitors all licensing, includes new user/computers.
17. Performs research and troubleshooting of GIS related issues and problems, recommends possible courses of action and/or solutions.
18. Provides training and technical assistance, as needed, to GIS user departments.
19. Produces and plots thematic and digital maps and other types of graphics products.

20. Responsible for GIS presentations and/or training for management, end users, producers, and decision-makers.
21. Prepares data documentation or metadata for GIS projects.
22. Keeps abreast of software features and enhancements, new administrative techniques, and current issues through continued education and professional growth. Attends conferences, workshops, and seminars as appropriate.
23. Performs all other duties as assigned.

**Required Knowledge, Skills, Abilities and Minimum Qualifications:**

The requirements listed below are representative of the knowledge, skills, abilities, and minimum qualifications necessary to perform the essential functions of the position. Reasonable accommodation may be made to enable individuals with disabilities to perform the job.

Requirements include the following:

- Bachelor's Degree in geography, information systems, or related field and four years of progressively more responsible experience in geographical information systems and development.
- The County, at its discretion, may consider an alternative combination of formal education and work experience.
- Valid Michigan Vehicle Operator's License.
- Certified GIS Professional (GISP), preferred.
- Thorough knowledge of the principles and practices of GIS.
- Considerable knowledge of developing and maintaining a complex GIS geodatabase, coordinate geometry, geographic terms, vector maps, researching, assembling, refining and analyzing data; building layers within the GIS, reading and understanding survey drawings, design plans and maps, and translating data sources into usable information.
- Skill in the use of sophisticated office equipment and technology, including Microsoft Suite applications, the County's enterprise software system, and the ability to master ArcGIS and Cityworks software applications.
- Thorough knowledge of GIS principles and concepts.
- Knowledge and skill in using ArcGIS Enterprise (ArcGIS Server, Portal for ArcGIS),

ArcGIS Online, ArcGIS Pro, and ArcGIS Desktop.

- Skill in ESRI Operations Dashboard, Experience Builder and WebApp Builder.
- Skill in cartographic design.
- Knowledgeable in scripting, particularly Python and Microsoft Powershell.
- Familiar with GPS data collection.
- Ability to read legal property descriptions.
- Skill in assembling and analyzing data and preparing comprehensive and accurate reports and/or representations of data.
- Skill in effectively communicating ideas and concepts orally and in writing.
- Ability to establish effective working relationships and use good judgment, initiative and resourcefulness when dealing with County employees, contractors to the County, representatives of other governmental units, professional contacts, elected officials, and the public.
- Ability to assess situations, solve problems, work effectively under stress, within deadlines, and in emergency situations.
- Ability to respond to emergency or service needs on a 24-hour basis, including the need to ensure a county-issued portable computing device is available at all times to facilitate this support. Due to the importance of the GIS system in certain departments, specifically including the courts and public safety, system continuity and access to needed documents are paramount for these departments, as historical information can be the difference in critical decisions or in life saving situations.

### **Physical Demands and Work Environment:**

The physical demands and work environment characteristics described here are representative of those an employee encounters while performing the essential functions of the job. Reasonable accommodation may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is regularly required to communicate in person and by telephone, read regular and small print, view, and produce written and electronic documents, and enter data on a computer keyboard with repetitive keystrokes. The employee must be mobile in an office setting, stand, sit, stoop, and kneel, use hands to finger, handle, or feel and reach with hands and arms. The employee must lift or push/pull objects of up to 40 lbs. without assistance. Accommodation will be made, as needed, for IT employees required to lift or move objects that exceed this weight.

The typical work environment of this job is a business office setting where the noise level is

quiet and sometimes moderate.