



GIS/Surveying Technical Specialist

Class code: 310

Employee Group: SEIU

Salary Range: 22

I. Position Summary

Under general supervision, to perform a variety Geographic Information Systems (GIS), AutoCAD and surveying technical services; to provide support in cadastral record keeping systems and land development activities; to perform a full range of office and field operations duties in support of geodetic surveying, public land corner restoration, and land records management.

II. Distinguishing Features

This is a journey level classification with heavy emphasis on GIS for the development and maintenance of cadastral datasets and land records. Employees in this class may exercise technical or functional supervision over lower level positions. Assigned duties require the exercise of judgment and application of technical and specialized knowledge.

III. Examples of Essential Position Duties

- Under direction of higher level staff, performs development of integrated Geodatabases combining geodetic survey data and GIS data. Establishes metadata standards and develops workflow for integration of field survey data into a spatially driven relational database.
- Develops and maintains GIS based mapping applications for maintenance and delivery of survey records to the public.
- Performs basic data collections; works with others using the Global Positioning System (GPS) or robotic total station.
- Under direction of the County Surveyor, indexes survey maps, subdivision, partition and condominium plats. Coordinates with citizens or private surveyors concerning said maps and plats.
- Performs the initial research for Public Land Survey System (PLSS) corner restoration projects and monuments, and prepares maps and reports for the projects. Recovers and analyzes documentation of PLSS; complies corner reports and associated data into standardized forms.
- Performs Coordinate Geometry Computations in GIS and computer-aided drawing (CAD) environments.
- Designs and operates complex databases in a variety of environments for attribute integration into ArcGIS. Establishes metadata standards and documents. Prepares technical memorandums per Federal Geographic Data Committee standards, National Map specifications, state, and county standards.
- May work independently in the field within clearly established guidelines.
- Works in conjunction with the County's Information Technology Department in developing and managing various tools for delivery of survey data to various users.
- Adheres to County and departmental policies and procedures as well as safe work practices, policies and procedures.
- Develops and maintains effective working relationships with other staff, public officials, the general public and representatives of other agencies.

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- Attends and participates in required trainings.
- Has regular and reliable attendance.
- Overtime may be required.
- Performs other related duties as assigned.

IV. Knowledge, Skills and Abilities

Position requires extensive knowledge and application in spatial databases and Geographic Information Sciences; demonstrated knowledge in the use of ArcGIS Online (or ArcGIS Server) and ArcMap 10.3 or later software, along with experience in geodatabase design, management and related software administration; basic AutoCAD or related design software skills; attention to detail and documentation of data workflows; working knowledge of surveying principles, practices and methods; the Public Land Survey System; County ordinances, codes and Oregon Revised Statutes related to surveying and land development; the Bureau of Land Management's current Manual of Instructions; use of advanced mathematics including geometry, algebra and trigonometry to make calculations used in area of assignment; a basic understanding of geodesy, geodetic networks, GPS surveying, map projections, datums, geodetic control surveys and least squares adjustments; construction staking practices; survey measurements, methods, and error analysis; and, modern survey equipment and instruments. Position requires the ability to work solely in the office or field as needed. Ability to develop databases of spatial information from initial scope through final application delivery; perform title research and deed record research; use modern survey instruments, including data collectors, total stations, robotic total stations, GPS equipment and digital levels; use real time GPS equipment and methodology; follow oral and written instructions; communicate effectively both orally and in writing; and, operate various power tools required when excavating pavement, concrete or ground soils; prepare and maintain accurate records, reports, logs and files; work independently under minimal supervision; provide functional or technical work direction to others as assigned; prioritize work to meet established deadlines; use a variety of engineering, drafting and field survey equipment and tools including nuclear gauge, generator, drills, steel probes, four-wheel drive vehicle, camcorder, office machines including computer, fax, copier, CAD system and peripheral equipment; and interpret and explain department policies and procedures as necessary.

V. Minimum Requirements (*Performance of the essential duties of this position includes the following requirements, physical demands and/or working conditions*)

Education and Experience

- Bachelor's Degree in GIS, surveying, civil engineering or a related field such as geology, forestry, geography, geodesy or environmental science AND two years of experience in the use, development and operation of GIS systems and applications OR
- Any combination of education and experience which provides the applicant with the desired skills, knowledge, and ability required to perform the job.

Licenses, Certificates and Other

Must have a valid Oregon driver's license with an acceptable driving record. Possession of an Arc GIS Desktop certification from ESRI at time of hire or it must be obtained within 18 months of appointment.

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Physical Demands (*Performance of the essential duties of this position includes the following physical demands and/or working conditions*)

Requires the ability to perform work in an office setting and perform field surveys including exertion of a moderate amount of physical effort; requires sufficient hand/eye coordination and dexterity in the use of fingers, limbs or body to perform semi-skilled repetitive movements such as drafting, data entry and/or use of other office equipment or supplies; must be able to perceive forms and colors; may require the ability to operate motor vehicles. Tasks involve frequent walking over rugged terrain and on steep slopes, standing, lifting and carrying objects up to 50 pounds and some climbing. Tasks require visual perception and discrimination as well as oral communications ability.

Working Environments

Incumbents are exposed to adverse weather, including extreme temperatures, rain, snow, sleet and hail. Incumbents are also exposed to dangerous or unpleasant conditions and substances, including noise, dust, vehicular exhaust fumes, chemicals, paint, traffic hazards, noxious plants and wildlife. May include exposure to disruptive people.

VI. Additional Information

This classification description is not intended to be an exhaustive list of duties, knowledge, skills, abilities, or requirements, as any one position in this classification may be assigned some or all of these duties, in addition to other duties not explicitly listed here. The various duties, responsibilities and/or assignments of this position may be unevenly balanced and change from time to time based upon matters such as, but not limited to, variations in the shift, work demands, seasons, service levels and management's decisions on how to best allocate department resources. Any shift, emphasis or rebalancing of these assigned duties, responsibilities and/or assignments does not constitute a change in the job classification.

Adopted: 10/16