

## **POSITION DESCRIPTION**

Title: Survey Manager

Department: Highway Department – Geospatial

Job Analysis: January 2013, September 2018, February 2020

Note: Statements included in this description are intended to reflect in general the duties and responsibilities of this classification and are not to be interpreted as being all inclusive. The employee may be assigned other duties that are not specifically included.

### **Relationships**

Reports To: Geospatial Operations Manager, County Engineer

Subordinate Staff: None

Internal Contacts: Highway Department Employees

External Contacts: General Public, Contractors, Utility Companies, ALDOT and Members of County Offices

Status: Classified/Non-Exempt (M)

### **Job Summary**

~~This position performs various surveying and other duties including but not limited to highly technical, administrative and field survey work, construction and maintenance of highways and other structures. Assist the Design Engineer in managing the County's surveying program. Position receives general direction on most assignments and uses own initiative in solution of details.~~

This position performs various land surveying, Geographic Information Systems (GIS), and other duties including, but not limited to, highly technical, administrative, and field survey work. Assists various sections in production and management of the County's surveying and GIS program. Position receives general direction on most assignments and must use their own initiative to create effective solutions related to boundary lines, right of way, easements, construction surveying, and GIS.

### **Job Domains**

1. Performs various types of surveys (boundary, topographic, easement, right of way, etc.), deed research, and mapping to support specific projects and other staff.
2. Ability to perform in a production environment, schedule, and manage both office and fieldwork to satisfy project timelines.

3. Process field data and develop ArcGIS mapping and database entry of collected survey data as well as develop computerized 3D surfaces in in ArcGIS or CAD software, such as Microstation and Inroads.
4. Accurately determine and stake out right-of-way limits.
5. Assist with preparing legal documents for property subdivisions, right of way, and land acquisitions by the County.
6. Conduct field surveying for GIS asset inventories (pipes, box culverts, guardrail, etc.)

#### B. Surveying

1. ~~Supervise, instruct, and assist field survey crews to perform roadway surveys including topographic surveys, locating roads, drainage structures, and property ownership lines and tying same to road location.~~
2. ~~Supervise, instruct and assist office staff to process field data and develop Microstation drawings of the survey as well as develop computerized 3D surfaces in InRoads Survey used in design.~~
3. ~~Stake out right of way limits.~~
4. ~~Take elevations and measurements needed to calculate quantities of excavation and embankment.~~
5. ~~Possess the skills necessary to perform all common types of surveys, such as boundary survey, geodetic survey, etc.~~

#### C. Right of Way

1. ~~Prepare legal documents for property subdivisions and land acquisition by the County.~~

### **Knowledge, Skills, and Abilities**

(Any item with an asterisk will be taught on the job)

1. Excellent verbal communication skills (listening and speaking) to meet with the public, communicate effectively with supervisors, co-workers and other personnel, and to maintain effective working relationships with all staff.
2. Ability to perform various types of surveys, ask for information and instructions, and communicate effectively via phone, email, and in person.
3. Math skills to calculate area and volume of road and bridge drainage, earthwork, base, pave and maintenance; knowledge of math formulas, trigonometry and geometry for field surveying.
4. Writing skills to take field notes and produce written documentation of projects.
5. Reading skills to understand and interpret Alabama Highway Standards Specifications memoranda, blueprints, plat, and property descriptions.
6. Adherence to the Standards of Practice for Surveying in the State of Alabama.
7. Knowledge of state and county laws, policies and procedures pertaining to specifications, construction, etc.
8. Ability to use total station, level, calculator, GPS and data collector.
9. Ability to exercise independent judgment and initiative in planning and implementing work.
10. Knowledge of rules and regulations regarding safety.

11. Thorough understanding and competency of Geographic Information Systems (GIS).
12. Ability to understand and follow complex written instructions.
13. Ability to collect and record data as well as perform calculations as necessary.
14. See well enough to operate engineering instruments, keep notes in field books, prepare topographic maps/plans, make inventories, operate motor vehicle; corrective lens acceptable.
15. Hear well enough to make field surveys for roads and bridge plans, understand oral instructions, carry on conversation with public and workers; hearing aid acceptable.
16. Speak well enough to meet and converse with the public, convey instructions to others, communicate by telephone and two-way radio.
17. Body movement or movement to make field surveys, operate survey instruments, operate motor vehicles, handle signs and hand tools, take samples.
18. Verbal communication skills to meet the public, converse with personnel, make surveys, ask for information and instructions, and communicate by radio or phone.
19. Writing skills to take field notes, write bridge and roadway inspection reports, inventories, estimates, transcripts.
20. Ability to plan, direct, and supervise activities of Field Survey Crew.
21. Knowledge of data collectors and upload to desktop software.
22. Ability to establish and maintain effective working relationships with associates, supervisors, subordinates and the contractor's employees contacted in this work.

### **Physical Characteristics**

1. Understand and respond accordingly to verbal communications or oral instructions, carry on a conversation with the public and other staff; hearing aids are acceptable.
2. See well enough to read fine print and numbers accurately on a computer monitor or on a printed document without transposition, operate advanced measurement instrumentation, and operate a motor vehicle.
3. Strength and sufficient body movement to conduct field surveys, lift objects, use hand tools, and operate a motor vehicle.
4. Ability to work outdoors in hot or cold weather while navigating rough terrain.
5. Ability to lift up to 100 lbs (such as manhole covers, etc.)
6. Ability to bend, stoop, crawl, climb hills or ditches, and stand for long periods of time.

### **Other Characteristics**

1. Willing to travel to training sessions, meetings and seminars on public works.
2. Willing to work non-standard hours as necessary.

### **Minimum Requirements**

1. Possess a valid driver's license.
2. Minimum of four (4) years experience in running a survey crew for boundary, construction and topographic surveys.
3. Graduation from a standard high school and successful completion of college coursework from a two (2) or four (4) year institution related to surveying, GIS, or engineering.

4. Experience in conducting surveys on roads and bridges and in preparing documents and plan preparation.
5. Experience with ESRI ArcGIS software products preferred.
6. Trimble GPS and Microstation (Inroads) experience a plus.
7. ~~Any combination of training and experience equivalent to graduation from a standard senior high school including courses in mathematics and science.~~
8. ~~Experience in making surveys on roads and bridges and in preparing documents and plan preparation.~~
9. ~~GPS and Microstation (Inroads) experience a plus.~~
10. ~~Professional Surveying registration in the State of Alabama is required.~~