

**CLEBURNE COUNTY PERSONNEL OFFICE**

Is taking applications for the position of

**Certified Engineering Assistant**

This is a full time, classified, professional position that works under the direction of the County Engineer. This position starts at \$23.72 per hour.

Applications may be filled out at the Cleburne County Mountain Center, located at 6751 Hwy 78 Heflin, Alabama, between the hours of 8 a.m. and 4 p.m. Monday through Friday until August 28, 2019. A resume may be submitted with the job application.

**Job Qualifications:**

Potential candidates should have the ability to perform bridge inspection, project inspection and surveying. Knowledge of county roads and bridge systems is preferred. Qualified Credential Inspector in bridge inspection, traffic control, roadway technician, concrete technician and herbicide application. Applicant must have a Bachelor's Degree in civil engineering and a minimum of 3 years of experience in bridge and road maintenance. Applicants should be able to work during emergencies and other nonstandard hours. Reading, math and communication skills are a must.

The Cleburne County Commission is an Equal Opportunity Employer.



# CLEBURNE COUNTY

## JOB DESCRIPTION

Job Title: Certified Engineering Assistant

Department: Engineering

FLSA Nonexempt

Job Description Prepared: July 30, 2019

Note: Statements included in this description are intended to reflect in general the duties and responsibilities of this job 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: County Engineer

Subordinate Staff: Bridge Maintenance and replacement Pipe Installation crew

Other Internal Contacts: County Commissioners, Engineer in Training H.R.O., C.F.A., Probate Judge, Revenue Commissioner, Road Department, Sheriff Department

External Contacts: ALDOT Officials and Engineers, ADEM, FEMA, ADECA, Railroads. Attorneys, Consulting Engineers, Contractors, Salesmen, Consulting Engineers, General Public, Utility Companies

### **Job Summary**

Under the general direction of the County Engineer, this position assists in directing, organizing and reviewing the activities of the Engineering Department. Reviews and ensures that project plans comply with County standards and specifications. Advises and directs county projects. Conducts surveys, reviews and inspects bridge projects.. Prepares financial reports for the County Engineer on projects. Consults and directs firms handling projects. Performs necessary math calculations for drainage and other civil engineering projects. Conducts on-site inspections of ongoing projects. Directs surveying projects. Work is reviewed by County Engineer from an overall standpoint and expected results. Reports bridge and roadway data to ALDOT.



## **Job Domains**

### **A. Records Maintenance and Reporting**

1. Completes all budgetary and preliminary paperwork for Bridge and Resurfacing Program.
2. Keeps daily inspection book containing the day-to-day operations of projects
3. Calculates monthly estimates based on the amount of work performed for that month including C-20's and daily time charges.
4. Administers contracts with construction firms, ensures satisfactory completion of work, and documents work performed.
5. Forwards certified contractor payrolls to division office after recording all information in project report. Forwards the project report to division office.
6. Records final quantities in a field book showing a estimate of what was paid for each item and an analysis of overruns and underruns.
7. Calculates and acquired necessary materials to accomplish roadway and bridge repairs and maintains.
8. Conducts final inspections on both bridge and resurfacing projects.
9. Completes and compiles data for completion of FEMA forms and submits to ALDOT as required.
10. Prepares a final set of plans containing all final quantities, with references to the field book, and showing all calculations determining the quantity amount.
11. Accompanies the assistant engineer to perform a scope of work report on the projects and PS&E Inspections.

### **B. Drafting**

1. Gathers field data and utilizes Micro Station software to prepare bridge, drainage and resurfacing plans.
2. Prepares topographic maps and sketches, plot plans, bridge location maps.
3. Prepares detour routes and traffic control plans.

### **C. Project Inspection**

1. Inspects work and materials in the construction of drainage structures and paving projects (including those done by contractors) to ensure compliance with ALDOT Specifications.
  - Examines placement of base and sub-base material, concrete, steel piling, asphalt, plant mix, steel beam guardrails, bituminous surface treatment, traffic stripping, etc. during construction.
  - a. Prepares inspections and test repoompletes required inspection forms and makes note of dangerous or potentially dangerous situations.
  - b. Submits inspection reports in proper format to division office of ALDOT.
  - c. Inspects approach for alignment, width, overall condition and proper posting.
  - d. Reviews inspection reports with county engineer; discusses any situation that is considered critical.



**D. Bridge Inspection**

1. Schedules and performs inspections and oversees any inspection work.
2. Inspects all county bridges for condition of all members and overall structural condition; field inspections involve visual examination, sounding, core samples (wood), measurements and micrometers (section loss on steel members).
3. Operates transit and level during bridge inspection surveys.
4. Drives piles.
5. Sets precast components.
6. Fills out all special forms on county bridges.
7. Submits inspection reports via modem to the division office of ALDOT.

**E. Surveying**

1. Performs surveys for all bridge inspections, construction projects, right-of-ways, x-sections and topographicals, landfill trenches, and areas designated for pipe installation.
2. Operates transit and level to determine the elevation, location and size of horizontal and vertical points or areas.
3. Determines area to be drained by each drainage structure and calculates size of structure required.
4. Establishes flow line elevation needed for structures to function properly.
5. Takes elevation and measurements needed to calculate quantities of excavation and embankment.
6. Stakes out right-of-way limits and writes right-of-way deeds.
7. Supervises the measurement of cross-sections and the recording of related topographic data.

**F. Herbicide Applicator**

1. Calculates the amount of herbicide to be used per gallon acre.
2. Operates herbicide truck to apply chemicals to 75% of county roads.
3. Records the type and quantity of chemicals used, the location and length of the treated area, and certification number.

**G. Miscellaneous**

1. Works with the public to help resolve concerns.
2. Drafts reports and documents.
3. Operates rubber tire loader and backhoe.
4. Endures all weight limit signs and bridge end markers are in-place on required bridges.
5. Reads blueprints and assists draftsman.
6. Sizes pipes for roads and drives.
7. Assists County Engineer and county commission as required.
8. Coordinates with various city, county and state officials.
9. Answers telephones in the engineer office; provides information to the public, transfers callers to appropriate individual and takes messages.



**Knowledge, Skills and Abilities**  
**(\*Can be acquired on the job)**

1. \*Knowledge of laws and regulations pertaining to county work, construction methods, and highway and bridge engineering.
2. \*Knowledge of departmental regulations, policies, and procedures.
3. \*Knowledge of county roads and bridge systems.
4. Knowledge of principles and practices of bridge inspection, project inspection and surveying.
5. Extensive knowledge of principles and practices of civil engineering.
6. Knowledge of modern methods and techniques as applied to design, construction and maintenance of road and bridges.
7. Ability to understand engineering concepts and to explain them to others in a practical and useful manner.
8. Ability to communicate effectively with the public, co-workers, and supervisors in person and over the telephone.
9. Writing skills to create, prepare and write forms and documents and instructions for projects.
10. Math skills to calculate quantities, design stress, and dimensions.
11. Ability to understand and interpret correspondence, specifications, blueprints, plats, property descriptions.
12. Ability to operate engineering instruments, keep notes and field books, prepare blueprint plans, make inventories, and operate a motor vehicle.
13. Ability to operate required web based programs, office equipment including but not limited to computer, fax, copier and printers.
14. Ability to perform budgetary functions.
15. Ability to conduct field surveys for road and bridge plans.
16. Mobility to walk, climb, and operate equipment over uneven and rough terrain.
17. Ability to work independently with little or no supervision.

**Minimum Qualifications**

1. Bachelor's degree in civil engineering from an accredited college or university.
2. Minimum of 3 years professional experience in road and bridge maintenance; and inspections.
3. Possession of a valid Alabama Driver's License.
4. Ability to work non-standard hours and more than 40 hours per week as needed.
5. Ability to work occasional periods of up to 24 hours straight during emergencies such as floods, hurricanes, tornadoes, and snowstorms.
6. Certified in Bridge Inspection, Traffic Control; roadway technician, concrete technician, and herbicide application.
7. Qualified Credential Inspector.



### **Work Environment**

The work environment involves high risks with exposure to potentially dangerous situations or unusual environmental stress which require a range of safety and other precautions, e.g., working at great heights under extreme outdoor weather conditions, subject to possible physical attack or mob conditions, or similar situations where conditions cannot be controlled .

### **Physical Demands**

The work requires considerable and strenuous physical exertion such as frequent climbing of tall ladders, lifting heavy objects over 50 pounds, crouching or crawling in restricted areas, and defending oneself or others against physical attack.

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Name

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Title

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Date