

JACKSON COUNTY, IOWA
Position Description
Secondary Roads Department

Title: Senior Engineering Technician

Reports To: County Engineer

Department: Secondary Roads

FLSA STATUS: Non-Exempt

SUMMARY

Under the direction of the County Engineer, performs engineering duties in the planning, surveying, design, drafting and construction inspection of county road, bridge, and culvert projects. Performs technical skills in the inspection of construction projects to ensure their compliance with Iowa DOT standards and specifications; also performs manual, sub-professional work and leads the survey party.

EQUIPMENT/JOB LOCATION

Ability to utilize GPS survey equipment, personal computers, Microsoft Word and Excel and other survey instruments and equipment for training purposes. Also requires the use of testing equipment for asphalt material testing and concrete testing. Construction inspection and surveying activities will take place anywhere within the County and will include exposure to varying summer and winter conditions. Designing of engineering projects will take place at the County Engineer's Office located at the County Courthouse.

ESSENTIAL FUNCTIONS

Essential functions, as defined under the Americans with Disabilities Act, may include any of the following representative duties, knowledge, and skills. This list is ILLUSTRATIVE ONLY, and is not a comprehensive listing of all functions and duties performed by incumbents of this class. Employees are required to be in attendance and prepared to begin work at their assigned work location on the specified days and hours. Factors such as regular attendance at the job are not routinely listed in job descriptions, but are an essential function. Essential duties and responsibilities may include, but are not limited to, the following:

Serves as an Inspector for all phases of County construction projects and will include, observing a contractor and ensuring adherence to plans and specifications, checking grades and elevations, collecting and recording measurements of a routine nature and comparing them with the project plans and specifications, maintaining related records, and other jobs as directed by the Engineer.

Assist in plant inspection by helping or performing standard testing on concrete, asphalt, soil, rock and other construction materials for conformance to specifications. Observe batching of Portland cement and asphalt concrete. Check weighing of rock and asphalt and maintains related records.

Operate GPS survey equipment on a survey party; cuts and clears brush, limbs and other survey obstructions using ax, brush hook, chain saw and shovel; set stakes; locate hubs turning points, benchmarks and monuments; uses tape, chains, hand levels and sight rods. Sets grades, elevations and makes standard computations; records field notes in log book.

Assist the Engineer's Office maintaining related records; performs routine drafting, sketching, tracing and lettering work in preparation of cross section plans, plat and plan layouts; makes or checks mathematical calculations; assists in reducing survey notes in preparation of reports.

Assists in obtaining soil samples and participates in surveying locations for test borings. Acts as inspector for preparation of seedbeds. Check the weighing of shoulder rock; checks and initials weight

tickets and maintains running batch concrete for full depth patching. Acts as backfill inspector on pipe culverts; assists in checking areas for correct elevation; is present at all times to observe material being used on grading projects. Employees at the discretion of the County may be required to perform duties not within their immediate job description.

REQUIRED KNOWLEDGE AND SKILLS

Ability to plan, organize and inspect the work of engineering and maintenance workers; ability to do drafting and simple engineering designs and calculations; ability to understand and implement technical instructions; knowledge of construction specifications; skill in the use and care of drafting, survey and inspection instruments and equipment. Ability to understand and execute oral and written instructions; take field notes and prepare routine reports; learn and utilize County and IDOT specifications and policies. Required to attend IDOT training classes and maintain IDOT certifications in HMA 1, PCC 1 and 2, and Aggregate.

MINIMUM EDUCATION, EXPERIENCE AND TRAINING

Must have high school diploma or G.E.D., supplemented by course work in advanced mathematics; completion of courses in technical engineering subjects. Five years of construction inspection, surveying and or construction administration preferred. The ability to read construction plans is a plus. Must have a valid driver's license .

PHYSICAL DEMANDS AND WORK ENVIRONMENT

Work is performed both indoor and outdoor throughout Jackson County and requires exposure to extreme weather conditions, hazards associated with traffic, moving machinery, noise, dust, vibrations and fumes. May be required to lift and move objects weighing up to 50 pounds.