Engineering Technician
Jasper County, Iowa

Job Title: Engineering Technician

Department: Engineer's Office and Secondary Roads

Supervisor: County Engineer

Duties of the Department: To Maintain the Secondary roads in Jasper County.

General Job Description:

Under the general direction of the county engineer perform surveying, engineering design, construction staking and inspection for road, bridge, and drainage maintenance and construction projects.
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Major Duties and Responsibilities

- Operate a total station, transit, level, tape, and other measuring devices in the location and relocation of land corners, setting centerline, running bench levels, developing cross-sections, topographical surveys, and other related survey work.

- Perform construction staking for bridge, paving, drainage projects, and/or other related secondary roads projects and maintenance activities as required.

- Field verify construction and maintenance work in process and upon completion for conformance to plans and specifications.

- Inspect roads, bridges, right of way and related structures and premises, complete air, slump, strength, and/or compaction tests and checks necessary for bridge replacement, paving, drainage, or grading projects. Must be able to pass the IDOT certification tests for Contract Administration 1 and 2, Agg 1 & 2, PCC 1 & 2, and HMA 1 within the first year of employment.

- Complete necessary inspection, testing, and documentation during the project and submit at project completion, including the preparation and submittal of DOT or other agency project close out audits.

- Develop plans and profile sheets for grading, paving and related construction projects in accordance with the direction provided by the County Engineer and applicable governmental guidelines.

- Assist land surveyor (in-house or outside) with easement records research: area and cost calculations of proposed right of way takes, temporary and permanent easements, and field survey staking of project areas during design and construction.

- Build competency with various technical operating manuals, standards, and specifications related to road, bridge, and drainage structure construction and maintenance. Develop a strong knowledge of materials, road surface types, traffic control devices, field testing, and standard and innovative maintenance practices.

- Gain competency in DOT procedures and processes as it relates to federal, state, and locally funding projects.

- Review construction/subdivision plats and plans for conformance with County Standard Specifications, Jasper County Subdivision Ordinances, and other applicable local, state, and federal standards, policies, and codes.

- Review work within right of way permits submitted by various individuals or companies to use the Secondary Road right of way for such purposes as roadway regrading, shaping, and placement of granular materials and drainage work along and across county roads. Provide recommendation on work within right of way permits to the County Engineer.

- Review and approve field entrance and driveway permits.

- Inspect permitted work by individuals or companies within the secondary road right-of-way. Provide feedback to the permittees and bring up disputed findings to the County Engineer. Also, document unpermitted work and provide findings to the County Engineer.

- Set up and collect traffic count data

- Receive inquiries or complaints and complete various related public relations duties as assigned; aid Maintenance Superintendent in field construction and maintenance activities; perform related technical engineering duties as assigned by County Engineer.

- Responsible for knowing and following company policies and procedures as outlined in employee handbook and for following and adhering to instructions, requests, and task assignments as given by The County Engineer.

Minor Duties and Responsibilities

To help cover the phones and counter as needed

Qualifications for the Job

Education:
Associates Degree in Civil Engineering Technology or related technical field from an accredited college or university.

Experience:
Proficient with Microsoft office (Excel, Access, and Word). Strong computer skills a plus.
Knowledge and experience with Autodesk Civil 3D preferred
Knowledge and experience with DOT preferred
Knowledge of surveying and surveying equipment required. Experience as a survey technician a plus.

Other:
Land Surveyor in Training (LSIT) Certificate a plus
Ability to maintain a high level of confidentiality with sensitive information
Strong problem-solving skills with a high level of attention to detail and accuracy
Ability to adapt to a fast paced, changing work environment and respond well under stress to ensure all deadlines are met
Excellent communication and customer service skills required
Flexibility to work additional hours when needed or to provide support to staff
Must possess a valid Iowa driver's license and a good driving record
Knowledge of the inner workings of a county road department preferred
Ability to operate inspection and testing equipment both in the field and in the lab

Key Competencies

Verifiable knowledge of land surveying principles and practices. Working knowledge of plans, specifications, and administration of civil engineering projects. Experienced in the standards of safety as related to civil engineering design

and construction; willingness to establish and maintain effective working relationships with engineers, contractors, and public officials; ability to conduct engineering inspections.

Physical Requirements

Must be able to legally operate a County vehicle throughout the County.
Must be able to communicate effectively with individuals on the phone and/or county radio system.
Must be able to interact with individuals at the front counter with reasonable accommodations
Must be able to lift, carry, push, and pull objects greater than fifty (50) pounds.
Must be able to bend, stoop, and crouch in all weather conditions and terrains.
Must possess proficient typing skills