



Engineering Technician II

Class code: 303

Employee Group: SEIU

Salary Range: 20

I. Position Summary

Under general supervision, to complete advanced engineering and/or survey work including cadastral surveys, establishing or renewing government land corners, or in the investigation, location, design, inspection or construction of engineering projects; and to perform assignments requiring independent performance of a variety of professional engineering functions.

II. Distinguishing Features

This is the journey level class in the series. This job performs at a technical level in support of a variety of engineering functions. Employees in this classification work within a framework of standard policies and procedures. This class requires knowledge of basic engineering theory and concepts as well as public work construction or surveying methods. This job class requires attention to detail and the skill to perform technical functions such as drafting, mapping, and mathematical calculations, traffic and/or field surveys and minor construction inspection. This class is distinguished from the entry level in the complexity of tasks performed and the amount of independent judgment exercised.

III. Examples of Essential Position Duties

- Designs roads and other projects involving vertical and horizontal alignment, cross sections, earthwork, right of way, legal descriptions, and drainage. Inspects projects in progress to ensure compliance with all applicable standards, specifications and design.
- Serves as member of a survey team.
- Creates complete construction drawings including plan and profile sheets, quantity summaries, and typical sections; design custom maps.
- Prepares contract administration worksheets including tally of daily quantities and monthly and final pay estimates.
- Inspects utility projects and issues permits.
- Participates in the completion of regular departmental projects including road jurisdiction books and annual mileage reports.
- Produces computer generated detail maps from field survey data.
- Researches and locates legal monuments; establishes a preliminary line tied to recovered monuments.
- Determines location of topographical features and elevations.
- Compiles data and field notes; transfer field information to computer for use by design staff and for road and maintenance records.
- Uses plans, grade sheets and other sources to locate and stake construction items.
- Operates the automated computer aided design system to complete drafting duties.
- Inspects capital improvement projects to ensure compliance with specifications.
- Responds to public inquiries concerning departmental projects; provide information concerning policies, practices and procedures.
- Provides painted layout work in the field for striping, fencing, and other construction related

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activities to ensure conformance with engineered plans and/or County standards.

- Prepares a variety of records, reports, logs, memoranda and files.
- May train temporary employees or provide work direction to survey crew.
- Answers telephones; take messages; files records; orders supplies.
- Performs traffic and directional counts.
- 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.
- 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

Requires knowledge of the practices and procedures of civil engineering in road design and construction inspection work; survey principles, methods and techniques; advanced mathematics including geometry, algebra and trigonometry; engineering computer programs used for design and data correlation; contract specifications and reference materials; construction materials, methods, practices and specifications.

Ability to conduct field surveys using survey equipment and tools; conduct research and draft deed descriptions; read, understand and apply information from a variety of written sources including field notes, maps, designs, charts, records, deeds, county records; make engineering drawings, plans and maps from field notes for capital improvement projects; prepare and maintain accurate records, reports, logs and files including construction item quantities and monthly and final pay estimates; work independently under minimal supervision; follow oral and written instructions; provide functional or technical work direction to others as assigned; establish and maintain cooperative working relationships with those contacted in the course of work; use advanced mathematics to make calculations used in the area of assigned work; prioritize work to meet established deadlines; use a variety of field survey equipment and tools, office machines including computers 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

- A combination of education and/or experience equivalent to an Associate's degree from an accredited college or university with major course work in civil engineering, surveying or a related field AND three years of work related experience (a Bachelor's degree may be counted for up to two years of experience); 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 driver's license with an acceptable driving record. Possession of or ability to obtain land surveyor's license in one year if performing government corner work.

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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 field surveys including exertion of a moderate amount of physical effort; requires sufficient hand/eye coordination to perform semi-skilled repetitive movements such as drafting, drawing, 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 a motor vehicle.

Working Environments

Work is performed in both an office and in the field where 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, 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.

Revised: 11/17