



# Engineering Technician

CLASS TITLE	CLASS CODE	SALARY GROUP	SALARY RANGE
ENGINEERING TECHNICIAN I	2122	A13	\$32,439 - \$49,388
ENGINEERING TECHNICIAN II	2123	A15	\$35,976 - \$55,045
ENGINEERING TECHNICIAN III	2124	A17	\$39,976 - \$61,399
ENGINEERING TECHNICIAN IV	2125	A19	\$45,244 - \$72,408

## GENERAL DESCRIPTION

Performs engineering technician work conducting surveys and inspections; collecting and correlating engineering data; and preparing reports, drawings, and calculations.

## EXAMPLES OF WORK PERFORMED

Inspects maintenance and construction projects for compliance with specifications and requirements.

Conducts laboratory tests to verify whether construction materials conform to department specifications.

Installs, operates, and maintains equipment and instruments related to the gathering of engineering or traffic data.

Maintains construction project records.

Prepares estimates, plans, and specifications for maintenance and construction projects; performs mathematical calculations.

Prepares drawings and cross sections of maintenance and construction projects; prepares tracings, inks, and letters.

Prepares, processes, and maintains reports.

Assists with core drilling operations and equipment.

Performs related work as assigned.

## DESCRIPTION OF LEVELS

*Examples of work and descriptions are meant to progress through the levels. For example, an employee at level IV may also perform work listed within the previous levels.*

**Note:** Factors that may distinguish between the journey levels include the degree of independence in performing the work and the complexity of the work and may include the employee's related experience, education, and certifications. Employees at the journey levels may independently perform the full range of work listed in the examples or may assist others in that work.

**ENGINEERING TECHNICIAN I:** Performs entry-to-routine (journey-level) engineering technician work. Works under moderate supervision, with limited latitude for the use of initiative and independent judgment. Employees at this level may perform simple to routine work following standard procedures or may rely on direction from others to solve problems that are not standard. Employees at this level may also assist others in performing work of greater complexity.

**ENGINEERING TECHNICIAN II:** Performs moderately complex (journey-level) engineering technician work. Works under general supervision, with moderate latitude for the use of initiative and independent judgment. Employees at this level may work more independently than those at the previous level and may routinely assist others in performing work of greater complexity.

Employees at this level may:

- Analyze data on construction projects and prepare drawings and documentation for computer entry.
- Coordinate procurement of equipment, instruments, and parts.
- Inspect materials, plant equipment, and production procedures.

**Note:** Senior-level employees (levels III-IV) may perform the full range of work identified in the preceding levels and may serve as a team lead; however, this responsibility would typically be found at the IV level. Factors that may distinguish between senior levels include the scope of responsibility and oversight; the scope, nature, size and complexity of the project, survey or inspection; the types of equipment used; and the employee's related experience, education, and certifications.

**ENGINEERING TECHNICIAN III:** Performs highly complex (senior-level) engineering technician work. Works under limited supervision, with considerable latitude for the use of initiative and independent judgment. Employees at this level may:

- Analyze traffic data and traffic volumes for state, district, and county traffic maps.
- Conduct cost analysis studies.
- Conduct statistical studies of traffic counts, predict future trends in traffic volume, and submit reports to be used in planning highway improvements and relocations.
- Test and maintain systems using analog or digital microprocessing equipment, and assist in the set-up and operation of equipment.

**ENGINEERING TECHNICIAN IV:** Performs advanced (senior-level) engineering technician work. Works under minimal supervision, with extensive latitude for the use of initiative and independent judgment. Employees at this level may:

- Oversee the collection and reporting of engineering and traffic data and the procurement, maintenance, and operation of traffic counting machines and other equipment.

- Oversee surveys and inspections and coordinate the installation, maintenance, and repair of electronic systems.
- Confer with contractors on plans, specifications, and quality of work.
- Determine the methods, equipment, and project schedules required to repair or modify computer-based switching systems.
- Audit construction project documents to ensure compliance with plans, specifications, and estimates.
- Examine the structural strength of manufactured items and materials.
- Make structural and design calculations for proposed projects, and assemble and review calculations from other sources.
- Plan, organize, schedule, and conduct engineering or traffic work projects.

## **GENERAL QUALIFICATION GUIDELINES**

### **EXPERIENCE AND EDUCATION**

Experience in surveying, traffic, or engineering work. Graduation from a standard senior high school or equivalent is generally preferred. Experience and education may be substituted for one another.

### **KNOWLEDGE, SKILLS, AND ABILITIES**

#### **For all levels**

- Knowledge of surveying and engineering principles, techniques, and procedures; mathematics; methods, procedures, equipment, and materials used in construction and maintenance work; applicable inspection methods, procedures, and techniques; laboratory testing procedures and methodologies; and applicable safety requirements.
- Skill in the operation and maintenance of applicable equipment, tools, and surveying instruments.
- Ability to conduct inspections and laboratory tests, to prepare reports, to perform mathematical calculations, and to communicate effectively.

#### **Additional for Engineering Technician IV level**

- Ability to serve as a lead worker providing direction to others.