Engineer

CLASS TITLE	CLASS CODE	SALARY GROUP	SALARY RANGE
ENGINEER I	2152	B23	$61,184 - $99,658
ENGINEER II	2153	B24	$65,104 - $106,634
ENGINEER III	2154	B25	$69,572 - $114,099
ENGINEER IV	2155	B26	$76,530 - $129,430
ENGINEER V	2156	B27	$84,182 - $142,374
ENGINEER VI	2157	B28	$92,600 - $156,612

GENERAL DESCRIPTION

Performs engineering work involving conducting or reviewing engineering design, planning, construction, inspection, and maintenance work; and reviewing and issuing permits or authorizations.

DISTINGUISHING CHARACTERISTICS

The Engineer job classification series is intended for positions performing engineering services for the public where a Texas Professional Engineer licensure is required, such as issuing permits or authorizations, or serving as a contested witness. In contrast, although employees in the Engineering Specialist job classification series perform engineering work, positions in this series should not be assigned job duties requiring a Professional Engineer license, as outlined within the Texas Engineering Practice Act and Rules, and local codes and ordinances.

EXAMPLES OF WORK PERFORMED

Performs engineering work related to civil or mechanical engineering (in areas such as materials management and construction, traffic, bridge, roadway, or mechanical systems design and maintenance) or engineering work related to environmental, agricultural, or energy engineering (in areas such as water or air pollution, solid waste management, water supply sanitation, insect vector control, energy efficiency and management, and health and radiation control).

Prepares, reviews, and interprets blueprints, schematic drawings, layouts, and other visual aids.

Prepares, modifies, reviews, and/or submits engineering and construction designs, plans, specifications, and estimates.

Calculates and/or reviews costs of materials and estimates of geometrics, hydraulics, grades, quantities, and related areas.

Conducts and/or reviews environmental studies, such as assessing air, water, solid waste, and hazardous materials, and pollution control methods; and approves related reports, plans, and specifications.

Conducts technical reviews on engineering proposals and reports.

Conducts field visits, surveys, and inspections; monitors contractor performance.

Reviews applications and approves and issues permits or authorizations.

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 VI may also perform work listed within the previous levels.

***Note**: Factors that may distinguish between journey and senior levels include the degree of independence in performing the work, the complexity of the work, the scope of responsibility, and the employee's related experience, education, and certifications. However, an employee's qualifications should not be the primary consideration in determining appropriate classification. Other factors may include the type, nature, scope, and complexity of the assigned project. Employees at the journey level may independently perform the full range of work listed in the examples or may assist others in that work.*

ENGINEER I: Performs routine to moderately complex (journey-level) engineering work. Works under general supervision, with limited latitude for the use of initiative and independent judgment.

ENGINEER II: Performs complex (journey-level) engineering work. Works under general supervision, with moderate latitude for the use of initiative and independent judgment. Employees at this level may:

- Review applications, approve and issue permits or authorizations, and approve reimbursements.
- Meet with the general public, engineers, developers, landowners, and interest groups concerning zoning; subdivision and building projects; and engineering regulations, standards, or policies.
- Perform detailed design work.

***Note:** A senior-level employee (levels III-VI) may serve in a lead or supervisory role; however, typically, supervisory responsibilities within this job classification series will be found at level IV, V, or VI, depending on the structure and size of the supervised workgroup.*

A senior-level employee may perform the full range of work identified in the levels preceding their own, and/or may oversee or coordinate that work for others. Factors that may distinguish

between senior levels include the scope of responsibility, oversight, and authority, and the nature, complexity, scope, and impact of the work performed.

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

- Design, install, maintain, and provide advice on computer systems and equipment; and evaluate, design, and program computer hardware and software for engineering design applications.
- Plan, develop, and monitor engineering projects; and plan, conduct, and monitor research projects in problem areas.
- Provide consultant and liaison services to internal and external organizations regarding new design concepts, solutions to problems, and changes in policies and laws.

ENGINEER IV: Performs advanced (senior-level) engineering work. Works under limited supervision, with considerable latitude for the use of initiative and independent judgment. Employees at this level may:

- Plan, coordinate, and handle multiple projects within area of responsibility.
- Review costs of materials and estimates of geometrics, hydraulics, grades, quantities, and related areas.

ENGINEER V: Performs advanced and/or managerial (senior-level) engineering and oversight work. Works under minimal supervision, with considerable latitude for the use of initiative and independent judgment. Employees at this level typically assume direct accountability for the work product and may:

- Coordinate with research organizations, governmental agencies, departmental staff, industry producers, and suppliers regarding material specifications.
- Review and analyze new materials and design or construction methods for acceptability.
- Define objectives and priorities relating to planning, locating, designing, constructing, and monitoring a transportation system.
- Prepare budgets for engineering projects.
- Develop and support implementation activities for new methods, procedures, and technologies.
- Analyze and assist in the resolution of contract problems and disputes.
- Represent the agency at various forums.
- Monitor consultant’s performance and compliance, evaluate deliverables, review billing documentation, and/or prepare and deliver a written evaluation of the consultant's performance.

ENGINEER VI: Performs highly advanced and/or managerial (senior-level) engineering and oversight work. Works under minimal supervision, with extensive latitude for the use of initiative and independent judgment. Employees at this level frequently utilize their specialized expertise to advise management on a variety of issues necessary to ensure a consistent, statewide implementation of rules, regulations, and policies. Employees at this level may also oversee or

work on some of the largest, most complex, and major or high-profile engineering projects, and may:

- Manage and/or conduct the review or issuance of major and highly complex permits or authorizations.
- Monitor research projects in challenging areas.

GENERAL QUALIFICATION GUIDELINES

EXPERIENCE AND EDUCATION

Experience in engineering work. Graduation from an accredited four-year college or university with a degree in engineering or a related field that meets the educational requirements for licensure.

KNOWLEDGE, SKILLS, AND ABILITIES

For all levels

- Knowledge of engineering principles, practices, techniques, and procedures; applicable laws, regulations, and rules; and mathematics.
- Skill in the use of computer-aided design techniques and computerized design, evaluation, and analysis tools; in comprehending technical material; in implementation planning; in identifying problems and causes; and in the use of logic to assess options.
- Ability to design and evaluate engineering projects; to interpret and apply regulations; to use deductive, inductive, and mathematical reasoning; and to communicate effectively.

Additional for Engineer III – VI levels

- Knowledge of project engineering development.
- Ability to plan and coordinate engineering projects and to oversee and/or supervise the work of others.

Additional for Engineer IV – VI levels

- Ability to manage engineering projects.

REGISTRATION, CERTIFICATION, OR LICENSURE

Must be licensed as a Professional Engineer by the State of Texas in accordance with Texas Occupations Code, Chapter 1001, and Texas Administrative Code, Title 22, Chapter 133.