

ENGINEERING TECHNICIAN III

DEFINITION

To perform a variety of technical engineering and surveying work involved in planning, design and construction of public works projects; to provide technical staff assistance to higher level engineering staff; to provide information to the public.

DISTINGUISHING CHARACTERISTICS

Engineering Technician III is the lead worker classification in the technical engineering classification series. Incumbents are expected to be able to perform many of the less complex tasks typically performed by civil engineers. This classification is distinguished from the Engineering Technician IV by the level of supervision received and the responsibility to perform less complex technical engineering duties. The level of independence exercised and expected in completing assigned projects distinguishes this class from the lower classifications of Engineering Technician I/II.

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from higher level technical and engineering staff; exercises technical supervision over lower level technical staff in the engineering division.

EXAMPLES OF DUTIES - Duties may include, but are not limited to, the following:

Reviews and inspects land development projects related to structures including streets, curbs, gutters and sidewalks, storm drains and other off site construction; review legal descriptions on land development projects.

Review plans for conformance with regulations regarding size, elevation and location of structures; verifies calculations.

Prepares plans, profiles and drawings including calculation of grades; and preparation of quantity and cost estimates.

Performs manual and AutoCAD drafting for assigned projects.

Researches status of County-owned property; reviews lot line adjustment descriptions for recording; identifies and prepares reports on property suspected of illegal subdivision.

Reviews parcel, survey and subdivision maps and property descriptions for recording; identifies, clarifies and amends maps.

Prepares, approves and conducts inspections for encroachment permits; approves transportation permits.

Supervises and/or participates in the surveying of public works projects, including field data collection and construction staking.

Investigates field problems affecting property owners, contractors and maintenance operations.

Provides technical support services relative to assigned area of responsibility.

Provides technical supervision over lower-level staff as assigned.

Coordinates assigned activities with engineers, developers, contractors, other County departments and divisions, and with outside agencies.

Assists the public and private surveyors in property research activities as necessary.

Responds to public inquiries and requests for assistance.

Performs routine office work as required, including but not limited to preparing reports and correspondence, duplicating documents / records as needed or upon request, copying and filing documents, entering computer data, maintaining computer record-keeping operations, etc.

Perform related duties as assigned.

QUALIFICATIONS

Knowledge of:

Pertinent Federal, State, and local laws, codes and regulations.

Principles of supervision and training.

Principles and practices of civil engineering and surveying.

Manual and automated drafting techniques.

Methods, material and techniques used in the construction of public works projects.

Recent developments, current literature and sources of information regarding engineering and surveying.

English usage, spelling, grammar and punctuation.

Advanced mathematics and their application to engineering and surveying work.

Modern office practices and technology.

Principles of record keeping.

Ability to:

Understand, interpret and apply pertinent laws, codes and regulations.

Supervise and train technical staff.

Work independently with minimal supervision.

Prepare plans and drawings neatly and accurately.

Perform AutoCAD design / drafting with skill.

Perform technical research and solve engineering and surveying problems.

Operate and maintain surveying and drafting equipment.

Prepare, understand and interpret engineering construction plans, specifications and other contract documents.

Perform required mathematical computations with accuracy.

Establish and maintain cooperative-working relationships with those contacted in the course of work.

Communicate clearly and concisely, both orally and in writing.

Work effectively in emergency and stressful situations.

Experience and Training Guidelines

Any combination of experience and training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

Experience:

Three years of recent engineering experience including at least two years at a level comparable to the Engineering Technician II; or an equivalent combination of education and experience.

Training:

High school diploma or GED equivalent. Completion of an accredited two-year college curriculum in civil engineering or a related technical field can be substituted for experience on a year-for-year basis up to a maximum of two years.

License or Certificate

Possession of, or ability to obtain, an appropriate, valid California driver's license.

Physical Demands

Must possess mobility to work in a standard office setting and use standard office equipment, including a computer; to inspect County development sites, to operate a motor vehicle and to visit various County and meeting sites; vision to read printed materials and a computer screen; and hearing and speech to communicate in person, before groups, and over the telephone. This is partially a sedentary office classification; the job also involves field inspection work requiring frequent walking at inspection site areas to monitor performance and to identify problems or hazards; standing in work areas and walking between work areas may be required. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard,

typewriter keyboard, or calculator and to operate standard office equipment. Positions in this classification occasionally bend, stoop, kneel, reach, push, and pull drawers open and closed to retrieve and file information. Employees must possess the ability to lift, carry, push, and pull materials and objects, up to 30 pounds, as necessary to perform job functions.

WORKING CONDITIONS

Employees partially work in an office environment with moderate noise levels and controlled temperature conditions, and partially in the field and may occasionally be exposed to loud noise levels, cold and hot temperatures, inclement weather conditions, road hazards, vibration, confining workspace, chemicals, mechanical and/or electrical hazards, and hazardous physical substances and fumes. Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures.