



ENGINEERING TECHNICIAN II

Class Code:
97432

Bargaining Unit: LIUNA - Inspections & Technical

COUNTY OF RIVERSIDE
Established Date: Dec 1, 1987
Revision Date: Jun 1, 2004

SALARY RANGE

\$22.09 - \$38.64 Hourly
\$3,828.79 - \$6,697.95 Monthly
\$45,945.54 - \$80,375.36 Annually

CLASS CONCEPT:

Under general supervision, to do responsible sub-professional civil engineering or land surveying work of a technically specialized nature in connection with planning, grading and drainage design, computer graphics, traffic, materials testing, environmental monitoring, hydrology, surveying, permits, or construction inspection activities; and to do other work as required.

This is the journey level class of engineering technician and the first working level class for construction inspection projects. The Engineering Technician II is distinguished from the Engineering Technician I in that the former performs assignments of larger scope and works more independently. Incumbents may be assigned as construction inspectors on small public works projects and subdivision tracts or as assistant construction inspectors on major public works projects and subdivision tracts. Incumbents may also be assigned to perform moderately difficult job duties as an instrument technician on a survey party.

REPRESENTATION UNIT:

LIUNA - Inspections & Technical

EXAMPLES OF ESSENTIAL DUTIES:

(Depending on the area of assignment, duties may include, but are not limited to, the following)

ENGINEERING:

- Does limited design of roadways and appurtenant structures; revises elements of simple engineering designs within established limits.
- Calculates and computes quantities and costs of material for a variety of construction projects; prepares maps using manual or computer aided techniques.
- Enter appropriate computer commands into system for mapping process; digitizes maps for data entry; operates plotter for computerized map preparation.
- Checks subdivision maps for mathematical accuracy, closure, area, survey consistency and accuracy, and legal conformity; prepares legal descriptions and plats; performs laboratory analysis of field samples of soils, aggregates, concrete mixes, and other materials for compliance with county standards and contract specifications.
- Investigates and makes diagrams, reports, and recommendations on high accident locations and other sites; coordinates traffic census program; collects, interprets, records, and makes graphical presentations of information gathered in traffic, transportation, and other studies and surveys.

FLOOD CONTROL:

- Plots hydrographs; reduces hydrologic data to charts and computes and plots stream flow rating curves; plots isohyetal and groundwater contour maps.
- Installs and operates hydrologic data station equipment; assists in the preparation of estimates of future traffic and travel patterns.

WASTE DISPOSAL: Under direction of Principal Engineering Technician or supervising Engineer:

- Assists in preparing technical reports on solid waste landfill sites, including availability of cover material, expected life, effect of run-off, access, and ecological impact.
- Performs sampling, inspection, monitoring and construction of gas collection systems, including flare stations and gas-to-energy systems, and ground/surface water monitoring systems at landfill sites. Also performs air quality

sampling.

- Assists Site Supervisor/Site Engineer in investigating and handling complaints arising out of disposal site operation.
- Performs daily site inspection of active landfill sites to ensure all permit and safety requirements are being met. Assists site engineer in survey support of daily landfill construction.
- Assists in construction inspection for public works construction projects.

SURVEYING: Performs moderately difficult sub-professional field and office surveying work.

- Sets up and maintains filing and indexing systems for road record documents, survey records, maps, accident records, transportation data, and other engineering record materials.
- Inspects the construction of less complex public works projects and subdivision tracts to assure compliance with plans, specifications, county standards and regulatory requirements. Files daily construction reports and associated documentation.
- **Field Work:** Acts as instrument technician on a survey crew; operates electronic measuring equipment as well as transit and level in making cross-section, profile, topographic, elevation, Photogrammetric, location and construction layout surveys.
- Makes computations and records readings; checks and prepares field notes; may act as Party Chief on a short term relief basis.
- **Office Work:** Drafts topographic, geometric alignment, cross-sectional, and profile drawings and maps using manual or computer aided techniques.
- Conducts title and property owner research; prepares legal descriptions and various legal documents relating to real property; calculates bearings, distances, areas and performs other calculations.
- Prepares drawings and sketches tracings from survey notes and other records; prepares detailed and precise maps including right of way maps.

RECRUITING GUIDELINES:

Experience: Three years of sub-professional civil engineering experience; College level courses in civil engineering or closely related subjects such as land surveying, soils erosion, soils testing, blueprint reading, mathematics, computer graphics, or hydrology may be substituted for up to two years of the required experience on the basis of 12 semester or 18 quarter units equaling one year of experience.

OR

Bachelor of Science Degree in Surveying Engineering/Civil Engineering

OR

Valid certificate of registration as an Engineer-in-Training or Surveyor-in-Training issued by the California State Board of Registration for Professional Engineers may be substituted for two years of sub-professional engineering experience.

Knowledge of: Mathematics including algebra, geometry, and trigonometry; the basic practices of engineering design and construction, traffic control, and land surveying; manual and automated drafting techniques; field and office procedures relating to hydrography; procedures related to construction inspection.

Ability to: Read and interpret legal descriptions, engineering drawings, survey notes, and tract descriptions; assist in the preparation of designs, plans, estimates, reports, and specifications; collect and analyze traffic, transportation, hydrologic, and other data and prepare reports, interpretations, and recommendations; compile and enter data into computer system for computer aided mapping; perform survey field work, inspect public works projects and subdivision tracts; and maintain effective relations with others.

OTHER REQUIREMENTS:

License/Certificate: Possession of a valid Class C California Driver's License or a Class B California Driver's License may be required for some positions in this class.

For those positions designated by the Department of Transportation (DOT) as safety-sensitive, applicants are required to complete a (DOT) mandated alcohol and drug screening records check. Reference checks from former DOT regulated employers are also required. (A positive test or refusal to test during the past two (2) years will disqualify an applicant from consideration for County employment). Applicants for safety-sensitive positions must submit an H-6 Department of Motor Vehicles (DMV) driving history before hire.

Employees in safety-sensitive positions are subject to DOT alcohol/drug testing on a random basis or for reasonable

suspicion.

PRE-EMPLOYMENT:

All employment offers are contingent upon successful completion of both a pre-employment physical exam, including a drug/alcohol test, and a criminal background investigation, which involves fingerprinting. (A felony or misdemeanor conviction may disqualify the applicant from County employment).

PROBATIONARY PERIOD:

As an Approved Local Merit System, all County of Riverside employees, except those serving "At Will," are subject to the probationary period provisions as specified in the applicable Memorandum of Understanding, County Resolution, or Salary Ordinance. Temporary and Per Diem employees serve at the pleasure of the agency/department head.