

**ENGINEERING TECHNICIAN I
ENGINEERING TECHNICIAN II**

DEFINITION

To perform paraprofessional and technical field and office civil engineering including survey, design, drafting, construction inspection, plan checking, data gathering and information dissemination.

WORKING CONDITIONS

Include field and office activities. Field activities include exposure to traffic hazards, noise, various weather conditions, and animal and insect bites. Weekend or holiday work may be involved.

PHYSICAL CHARACTERISTICS

Emphasize speech, hearing and vision, and the ability to perform moderate lifting and carrying.

DISTINGUISHING CHARACTERISTICS

Engineering Technician I - This is the entry level class in the Engineering Technician series. This class is distinguished from the journey by the performance of the more routine tasks and duties assigned to positions within this series. Employees at this level are not expected to perform with the same independence of direction and judgement on matters allocated to the journey level. Since this class is typically used as a training class, employees may have only limited or no directly related work experience. Employees work under immediate supervision while learning job tasks.

Engineering Technician II - This is the full journey level class within the Engineering Technician series. This class is distinguished from the Engineering Technician I by the assignment of the full range of duties. Employees at this level receive only occasional instruction or assistance as new or unusual situations arise and are fully aware of the operating procedures and policies within the work unit. Positions in this class are flexibly staffed and are normally filled by advancement from the entry level.

SUPERVISION RECEIVED AND EXERCISED

Engineering Technician I

Receives immediate supervision from the Senior/Associate Engineer or their designee.

Engineering Technician II

Receives general supervision from the Senior/Associate Engineer or their designee.

May exercise technical and function supervision over lower-level paraprofessional engineering personnel.

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

Perform office engineering work such as making maps, drawings, tracings, profiles, tabulating field data, designing elementary engineering structures and preparing specifications, contracts and other documents.

Perform field inspections on a variety of Public Works projects, maintain documentation of construction and inspection activities, prepare as built drawings and make recommendations to higher authority regarding the acceptability of construction work.

Review plans, maps, specifications, estimates for accuracy, presentation, and conformance with established engineering practices and city standards.

Perform various traffic studies and investigate issues related to traffic flow, sight distances, speed surveys and traffic control devices.

Assist in the preparation of preliminary studies of engineering projects and help prepare plans for public improvements; prepare written reports on engineering-related projects; assist in preparation of reports for City Council and Commissions.

Provide information and answer questions for consulting engineers, contractors, and the general public, as well as City Staff members.

Assist in the preparation of legal descriptions and plot maps for right-of-way acquisition.

Prepare encroachment permits, state permits and forms.

Perform survey work; operate, transmit and level survey instruments in the performance of control, preliminary and construction surveys and monument checks.

Update engineering records and maps.

Make every reasonable effort to continually improve the manner in which the job is performed and increase the quality of service to the public.

Perform related duties as assigned.

DESIRABLE QUALIFICATIONS

Engineering Technician I

Knowledge of:

Basic principles and practices of engineering office and field work, including drafting, construction inspection and survey procedures.

Civil engineering and related computer software and hardware.

Ability to:

Understand and interpret engineering plans and specifications.

Perform accurate engineering computations.

Communicate clearly and concisely, both orally and in writing.

Understand and carry out both oral and written instructions.

Assist in the preparation of plans, specifications, cost estimates and engineering reports.

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

Education and Experience

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

Education:

Equivalent to completion of the twelfth grade preferably supplemented by college level courses in civil engineering or related field.

Experience:

Two years of increasingly responsible paraprofessional engineering experience comparable to that of an Engineering Aide with the City of Dixon.

License, Certificate and/or Other Requirements

A valid California Driver's License and a satisfactory driving record are conditions of initial and continued employment.

Engineering Technician II

In addition to the qualifications for Engineering Technician I:

Knowledge of:

Engineering mathematics, drawing, instruments and computers.

Techniques for preparing designs, plans, specifications, estimates, reports, and recommendations, related to Public Works.

Ability to:

Perform a variety of mathematical/engineering computations.

Perform technical engineering work of a complex nature with a minimum of supervision in a variety of areas.

Education and Experience

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

Education:

Equivalent to the completion of the twelfth grade supplemented by college level courses in civil engineering or closely related field.

Experience:

Two years of increasingly complex paraprofessional engineering experience at a level comparable to that of an Engineering Technician I with the City of Dixon.

License, Certificate and/or Other Requirements

A valid California Driver's License and a satisfactory driving record are conditions of initial and continued employment.