

**CITY OF MILLBRAE
CLASSIFICATION SPECIFICATION**

**ASSISTANT ENGINEER
April 2019**

DEFINITION

Under general supervision, performs a variety of moderately complex professional office and field civil engineering work in the design, construction, and inspection of public works and transportation related projects; performs a variety of engineering support services, including plan checking, preparation of bid summaries, and cost estimating; serves as project manager in assigned projects; performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS

Assistant Engineer is the first experienced working level in the Engineering class series. Incumbents perform a variety of professional engineering work of moderate difficulty that requires independent judgement. Incumbents are expected to increase their knowledge and level of experience by performing and/or assisting with increasingly complex work. Incumbents may provide oversight and guidance to technical and support staff and to contractors on a project basis. This class is distinguished from the Associate Engineer because the Associate Engineer possesses registration as a Professional Engineer and performs a wider variety of more complex work.

SUPERVISION EXERCISED AND RECEIVED

Receives general supervision from supervisory or management staff in Public Works Department.

DUTIES AND RESPONSIBILITIES

The duties listed below are illustrative only and are not meant to be a full and exhaustive listing of all of the duties and responsibilities of the position.

- Manages the encroachment permit system, including issuing encroachment permits, inspections, and coordinating with residents and contractors;
- Designs and prepares engineering plans, specifications, cost estimates, meeting minutes, progress payments, change orders, and other related documents for public works projects including streets, street lighting, traffic signals, parks and recreation facilities, storm, sanitary sewer, and water systems, parking facilities and other structures; assists in and prepares preliminary design studies;
- Prepares and compiles engineering and special reports and recommendations;
- Serves as project management for a variety of capital improvement and/or construction projects, with duties that include running weekly meetings and coordinating technical personnel, outside engineering firms, and other public agencies; identifies problem areas and develops alternative solutions;
- Reviews subdivision and construction plans for conformance to City standards; checks for adequacy of design, traffic geometrics, hydraulics, grading, cost estimates, soils reports, and other factors; may prepare property descriptions and perform right-of-way work;
- Receives and conducts investigations of complaints and public inquiries related to the work, responding in person, over the phone, and/or in writing;
- Performs computer analysis of engineering tasks and problems; utilizes CAD to produce drawings for various engineering-related tasks as well as preparing and/or compiling engineering special reports and recommendations;

- Provides information to the public on department operations and current proposed projects;
- Interprets, applies, explains, and ensures compliance with Federal, State, and local policies and procedures;
- Attends meetings and/or conferences as may be required;
- Establishes, maintains, and fosters positive and effective working relationships with those contacted in the course of work; and
- Performs related duties as assigned.

JOB-RELATED QUALIFICATIONS

Knowledge of: Principles, practices, and methods of civil engineering as applied to the planning, designing, and construction of streets, storm drainage, and other systems; knowledge of design principles, strength of materials, stress analysis, and principles of mechanical, electrical, and structural engineering and surveying as they apply to the design of public works structures; planning, design, construction, and maintenance of public works projects; hydraulics, hydrology, mechanical, structural, and sanitary engineering related to public works projects; effective report and technical specification writing and techniques; personal computer usage and computer-aided drafting (CAD), geographic information system (GIS), word processing, project scheduling, and spreadsheet applications; drafting instruments; English usage, spelling, punctuation, and grammar; techniques for effectively coordinating the work of others; effective communication techniques including verbal and written; principles and practices of capital improvement cost estimation and contract administration; practices related to surveying, including reviewing and preparing maps and legal descriptions; practices of preparing and presenting effective staff reports; modern office procedures, methods, and related equipment; arithmetic, mathematical, and statistical calculations related to the work; CEQA documentation; current practices and laws affecting the work.

Ability to: Plan and manage assigned programs and projects; organize, prioritize, and coordinate work activities and meet deadlines; perform routine to complex civil engineering studies, analyses, and design; identify problem areas and develop alternative solutions and recommendations; prepare accurate plans, specifications, cost estimates, staff and engineering reports; make accurate engineering computations and drawings; communicate effectively orally and in writing; understand, interpret, and explain applicable City policies and procedures; read, interpret, and apply applicable rules, regulations, standards, and procedures; use electronic tools and equipment including computer, calculator, telephone, facsimile machine, and photocopy machine; establish and maintain effective working relationships with those contacted in the course of the work; make accurate engineering computations and drawings; communicate effectively orally and in writing; learn, retain, and apply various laws and regulatory codes relevant to assigned area of responsibility; derive standard design formulas and text table information; use initiative and sound independent judgment within scope of responsibility.

EDUCATION AND TRAINING GUIDELINES

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

Education: Bachelor's degree in Civil Engineering or a closely related field from a recognized college or university.

Experience: Two years in professional civil engineering work involving engineering design, plan checking, and project management.

Licenses: An Engineer-In-Training (EIT) Certificate. Possession of a valid Class C California Driver's License with a satisfactory driving record as determined by California Motor Vehicle guidelines.

SPECIAL REQUIREMENTS

The duties and responsibilities of the position require the mental and/or physical ability to work in a standard office environment; drive a vehicle; read fine print on blueprints and computer monitors; converse by telephone, two-way radio, in person, and around the noise of heavy construction equipment and be heard and clearly understood; use drafting instruments, calculators, and personal computers; and strength to safely lift and maneuver office supplies, blueprints, and boxes weighing up to 30 pounds. Ability to sit, stand, walk, kneel, crouch, and jump as may be required; physical mobility to negotiate difficult construction terrain, climb in and out of trenches, climb ladders up to 25 feet in height, walk up and down several flights of stairs; mental alertness and comprehension to learn and retain technical and administrative information, terminology, equipment, policies, procedures, and safety practices; interact effectively with co-workers, the public, elected officials, and contractors.

Other Requirements: Willingness and ability to work scheduled and emergency hours in excess of normal work hours; attend meetings, conferences, and seminars during and outside of regular work hours; work under adverse conditions including in traffic, construction sites, and inclement weather.