

**CITY OF ANAHEIM
CLASS SPECIFICATION**

TITLE CODE: K20

CLASSIFICATION: Associate Engineer

DEPARTMENT: Public Utilities
Public Works

CLASS DEFINITION: To perform professional and technical level engineering work including plan review, development review, contract administration, and design in assigned area of responsibility; to assist higher level engineers on large and complex public works construction projects or act as a project management engineer on assigned construction projects; to respond to questions and inquiries from the general public, developers, contractors, engineering professionals, and City staff regarding engineering and development projects; and to provide technical staff assistance to higher level engineering staff.

This is a broad classification with individual positions assigned to specific functional areas; duties and assignments may overlap depending on the operational needs of the department and staffing levels.

DISTINGUISHING CHARACTERISTICS: This is the full journey level class within the professional Engineer series. Employees within this class are distinguished from the Assistant Engineer by the performance of the full range of duties as assigned. 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 of the work unit. This class is flexibly staffed and is normally filled by advancement from the Assistant level or, when filled from the outside, requires prior work experience.

SUPERVISION RECEIVED AND EXERCISED:

Receives direction from higher level engineering staff.

May exercise functional and technical supervision over technical staff.

EXAMPLES OF ESSENTIAL JOB FUNCTIONS:

The following functions are typical for this classification. Incumbents may not perform all of the listed functions and/or may be required to perform additional or different functions from those set forth below to address business needs and changing business practices.

Prepare preliminary and final plans, cost estimates, schedules, and specifications for public works projects including street, water, sewer, and storm drain improvements; supervise and assist in project planning, design, and contract administration.

Calculate special sewer and drainage assessment reimbursement district fees; maintain mapping file.

Issue and revise permits and update permit fees; process utility annexation agreements.

Analyze and compute field data pertaining to grades, alignments, and topographical features; perform hydrology, hydraulic, and other calculations; review and coordinate the work involved in hillside development.

Coordinate public works and water utility activities with other City departments, divisions, sections, and outside agencies.

Assist higher level engineers on large and complex public works construction projects or act as a project management engineer on assigned construction projects; administer project from inception to completion including design, review, public meetings, bidding and construction; develop scope of work; serve as liaison to City staff, developers, engineers, consultants, the general public and external agencies on proposed development

projects; develop project timelines and sets priorities; assign work tasks and oversee the services of consultant staff.

Assist in supervising, planning, prioritizing, assigning, and reviewing the work of project staff and outside consultants.

Participate in the selection of staff; provide or coordinate staff training; work with employees to correct deficiencies; implement discipline procedures.

Perform or supervise the checking of final subdivision maps to determine the accuracy of professional engineering design computations and existence of adequate street, sewer, and storm drainage plans.

Review work of private engineers for compliance with City standards and practices; review work of outside plan check staff; review shop drawings submitted by construction contractors; determine engineering requirements for new developments; review and provide recommendations for processing change orders requested by contractors.

Participate in the selection of private consulting engineering services; prepare proposals; conduct interviews and review consultant qualifications; provide recommendations in the selection of consulting engineers.

Participate in development activities; assist developers in planning for adequate water to new or redeveloped areas; prepare and draft agreements with developers; participate in the review and approval of plans submitted by developers.

Perform network analysis to simulate field conditions; identify any areas in need of upgrade; prepare and maintain area system distribution network analysis model.

Review and update engineering standard drawings, specifications, and design criteria.

Participate in the preparation and administration of the section budget; maintain and monitor budgetary controls; submit cash flow reports.

Respond to questions and inquires from the general public, developers, contractors, engineering professionals, and City staff regarding engineering and development projects.

Serve as staff to a variety of City commissions, boards and committees; prepare engineering studies and reports including initial environmental impact and water supply industry reports.

Attend and participate in professional group meetings; stay abreast of new trends and innovations in the field of civil engineering.

Perform related duties as required.

When assigned to Water Services:

Assist in responding to field issues, such as main breaks, equipment failure, etc.; respond to customer inquiries and resolve complaints.

Assist in planning, developing, implementing, and maintaining a computerized asset maintenance/management program.

Prepare bid documents and provide contract administration for maintenance, repair, and emergency work for the field.

When participating in development activities, ensure that rates, rules, and regulations are clarified and understood.

Coordinate and review the work plans in the field; meet with staff to identify and resolve problems; monitor work flow; review and evaluate work products, methods, and procedures.

Develop, implement, and monitor the water production, transmission, and distribution maintenance plans; investigate new work methods and equipment to improve maintenance plan; establish and maintain quality control and quality assurance procedures; prepare specifications for the purchase of new equipment; ensure compliance with local, state, and federal requirements.

When assigned to Development Services or Design Services:

Coordinate and process Caltrans forms (PES, E76, and Award packages) for federally funded projects; prepare cooperative agreements with other agencies.

Perform engineering design and layout including hydrology & hydraulic calculations; collect and analyze engineering design data.

Review pavement management systems (PMS) surveys/reports, sanitary sewer, and storm drain studies.

Review permit requirements and update engineering standard drawings and specifications.

Participate in the preparation of consultant services agreements, requests for proposals, and related contract documents; evaluate and participate in the selection of outside consultants.

Survey and inspect project locations; analyze existing project documentation including maps, drawings, and specifications; meet and confer with city staff and outside agency staff.

Prepare regional, state, and federal grants; monitor and track application requests and approved grant programs.

When assigned to Traffic Engineering:

Participate in planning and directing traffic engineering and transportation activities.

Conduct a variety of technical engineering studies; review transportation planning studies; analyze traffic impact studies.

Prepare and review plans, specifications, and estimates for traffic engineering contracts; review subdivision and development plans.

Prepare grant applications; administer grant funding ensuring compliance with appropriate guidelines and regulations.

Operate the Traffic Management Center, including adjusting signal timing on controllers and operating CCTV cameras, changeable message signs, and highway advisory radio; assist signal technician with troubleshooting field equipment such as signal controllers, CCTV cameras, changeable message signs, and communication.

Prepare and implement signal timing plans for daily operation and special events.

Prepare standards, methods, and techniques for traffic improvement programs; supervise the collection and analysis of data related to traffic problems.

Coordinate and oversee projects with other agencies and departments; prepare reports for the City Council.

Confer with architects, engineers, and consultants in the collection of data to prepare cost and construction estimates, legal descriptions, and plans for engineering projects.

Review City codes and ordinances for appropriate additions and deletions concerning traffic engineering problems.

Perform a variety of traffic engineering studies involving the use of computer programs and models.

JOB RELATED QUALIFICATIONS:

Experience and Education: Two years of professional engineering experience supplemented by a Bachelor's degree from an accredited college or university with major course work in civil engineering or a related field. An equivalent combination of experience and education sufficient to perform the essential job functions and provide the required knowledge and abilities is qualifying.

Knowledge of: Operations, services, and activities of a municipal engineering program; theory, principles, and practices of civil engineering and design; principles of mathematics and their application to engineering work; principles and practices of project management and administration; methods and techniques of contract negotiations and administration; methods, materials, and techniques used in civil engineering projects including those used in the design and construction of development projects; methods and techniques of engineering plan review and analysis; engineering maps and records; recent developments, current literature, and sources of information related to innovations and trends in civil and traffic engineering design and development; principles and practices of business correspondence and technical report preparation; office procedures, methods, and equipment including computers and applicable software applications such as word processing, spreadsheets, and databases; graphic software; principles of supervision, training, and performance evaluation; occupational health and safety standards; pertinent federal, state, and local codes, laws, and regulations.

Ability to: Perform professional engineering duties involved in the design, development and construction management of a variety of engineering projects; prepare engineering design computations; prepare engineering plans, specifications, and estimates for public works projects; prepare plans and drawings neatly and accurately; make engineering design computations and check, design, and prepare engineering plans and studies; conduct comprehensive engineering studies and prepare reports with recommendations; understand and interpret engineering construction plans, specifications, and other contract documents; perform technical research and solve difficult engineering problems; coordinate and monitor the work of contractors performing engineer activities; serve as the project manager on one or more projects; prepare and manage project budgets; maintain detailed project management records and documentation; interpret, apply, and ensure compliance with pertinent federal, state, and local laws, codes, and regulations; manage the work of outside consultants; respond to questions and inquiries from a variety of sources regarding engineering and development projects; conduct analytical traffic studies accurately and reliably; coordinate activities with internal and external agencies and committees; use and care for engineering, surveying, and drafting instruments and equipment; operate office equipment including computers and supporting word processing, spreadsheet, and database applications; adapt to changing technologies and learn functionality of new equipment and systems; supervise, train, and evaluate assigned staff; deal tactfully and effectively with the general public; read signal plans and schematics;

communicate clearly and concisely, both orally and in writing; and establish and maintain effective working relationships with those contacted in the course of work.

License/Certification Required: Possession of an Engineer in Training certificate is required. Possession of an appropriate, valid driver's license.

WORKING CONDITIONS:

Environmental Conditions: Work is performed primarily in a standard office setting with some travel to different sites; occasional exposure to outside weather conditions; work and/or walk on various types of surfaces including slippery or uneven surfaces and rough terrain.

Physical Conditions: Primary functions require sufficient physical ability and mobility to work in an office setting and field environment; to walk, stand, and sit for prolonged periods of time; to frequently stoop, bend, kneel, crouch, crawl, climb, reach, twist, grasp, and make repetitive hand movement in the performance of daily duties; to lift, carry, push, and/or pull moderate to heavy amounts of weight; to operate assigned equipment and vehicles; and to verbally communicate to exchange information.

OTHER:

FLSA Designation: Professional Exempt

Unit Designation: Professional Management

CAREER LADDER INFORMATION: Experience gained in this classification may serve to meet minimum qualifications for Senior Civil Engineer or Principal Civil Engineer.

Note: The above statements are intended to describe the general nature and level of work being performed by persons assigned to this job. They are not intended to be an inclusive list of all duties, responsibilities and skills required of incumbents. In accordance with the Americans with Disability Act, reasonable accommodation may be made to enable individuals with disabilities to perform the essential job functions.

Document Number: CS3251
Previous Document Number: CS1360
Former Job Class: Assistant Civil Engineer/Associate Civil Engineer
Revised 9/1989 – Ralph Andersen & Associates
Revised 6/1992 – C. Harris
Revised 8/1993 – C. Harris
Revised 8/2007 – G. McHaffie
Revised 7/2008 – B. Ramirez
Revised 11/2009 – Johnson & Associates(Former title: Associate Engineer – A)