CITY OF SUISUN CITY



ASSISTANT ENGINEER ASSOCIATE ENGINEER SENIOR ASSOCIATE ENGINEER

Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are <u>not</u> intended to reflect all duties performed within the job.

SUMMARY DESCRIPTION

Under supervision (Assistant Engineer), general supervision (Associate Engineer), or minimal supervision (Senior Associate Engineer), performs professional level duties in support of the City's engineering services and activities including the design, evaluation and construction of street, traffic controls, landscaping, parks, storm drains, sewer, and other public work projects; serves as a project manager on Capital Improvement Projects; reviews engineering reports, drawings, specifications and calculations for buildings, structures, streets, sewers and other public works facilities to ensure compliance with current industry practices, codes, regulations and ordinances; and responds to questions and inquiries from the general public, developers, contractors, engineering professionals, and City staff regarding engineering and development projects.

IDENTIFYING CHARACTERISTICS

<u>Assistant Engineer</u> – This is the entry-level class in the professional Engineer series performing routine and less complex engineering duties while learning City policies and procedures. Positions at this level are not expected to function with the same amount of program knowledge or skill level as positions allocated to the Associate Engineer level and exercise less independent discretion and judgment in matters related to work procedures and methods. Work is usually supervised while in progress and fits an established structure or pattern. Exceptions or changes in procedures are explained in detail as they arise. As experience is acquired, the employee is expected to perform with increasing independence and responsibility. Advancement to the "Associate" level is based on demonstrated proficiency in performing the full range of assigned duties, the completion of the minimum experience and education requirements for the "Associate" level and is at the discretion of higher level supervisory or management staff.

<u>Associate Engineer</u> – 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 including complex design, plans review and construction management of Capital Improvement Projects and for reviewing private development projects for design conformance and accuracy. Incumbents perform complex engineering assignments requiring considerable knowledge of various aspects of civil engineering including land development, planning, design standards and regulations, construction, and maintenance. 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. Work is normally reviewed only on completion and for overall results. Positions in this class are flexibly staffed and are generally filled by advancement from the Assistant Engineer level, or when filled from the outside, require prior experience. Advancement to the "Associate" level is based on management judgment and/or certification/testing that validates the performance of the full range of job duties.

<u>Senior Associate Engineer</u> - This is the advanced journey-level class within the professional Engineer series. Employees within this class are distinguished from the Assistant Engineer and the Associate Engineer within the series by the level of responsibility assumed and the complexity of duties 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 within the work unit. Incumbents oversee and participate in the more complex and difficult work in support of the City's engineering services and activities; oversee and participate in reviewing and/or preparing plans, designs, and specifications of public works projects to ensure compliance with city codes, specifications, policies, and standards; serve

as project manager on complex public works and capital projects; identify, secure, and administer outside funding; and responds to questions and inquiries from the general public, developers, contractors, engineering professionals, and City staff. Positions in this class are flexibly staffed and are generally filled by advancement from the Associate Engineer level, or when filled from the outside, require prior experience. Advancement to the "Senior Associate" level is based on management judgment and/or certification/testing that validates the performance of the full range of job duties.

REPRESENTATIVE DUTIES

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

Assistant Engineer/Associate Engineer:

Duties for the Associate Engineer are performed at the journey level.

- 1. Performs professional level engineering duties in support of the City's engineering services and activities including design and construction programs for City streets, lighting, storm drainage, sewers, traffic, parks, and landscape.
- 2. Prepares designs and specifications for assigned projects; develops engineering drawings, construction plans, specifications, contract documents, bid documents, calculations, and cost estimates for proposed projects; researches project design requirements; prepares estimates of time and material costs.
- 3. Performs plan check, review and processing of plans and specifications for projects affecting City streets, lighting, storm drainage, sewers, traffic, parks, and landscape; interprets the application of design criteria; ensures compliance with professional and City standards and practices; coordinates reviews with other departments and agencies.
- 4. Participates in the issuance of various construction permits including encroachment, transportation, and grading permits.
- 5. Assists higher level engineers on large and complex public works construction projects or acts as a project management engineer on assigned construction projects; administers project from inception to completion including design, review, public meetings, bidding and construction; develops scope of work; serves as liaison to City staff, developers, engineers, consultants, the general public and external agencies on proposed development projects; develops project timelines and sets priorities; assigns work tasks and oversees the services of consultant staff.
- 6. Interprets, plots, and supervises field survey data; reviews laboratory tests of construction materials; investigates field conditions related to public improvements, public utilities, and traffic safety operations; investigates field problems affecting property owners, contractors, and maintenance operations; works with public or private contractors on public improvements.
- 7. Administers design and construction contracts; maintains logs and tracks bond expiration dates; prepares project and budget reports; collects all required inspection approvals; prepares staff reports for Council; prepares daily progress and final reports and prepares documentation associated bonds; prepares and maintains detail project records and plans; negotiates change orders, authorizes payment of invoices.
- 8. Administers and enforces City codes and standards on engineering projects; addresses and responds to citizen concerns related to engineering problems.

- 9. Prepares a variety of engineering reports, studies, and technical documentation; utilizes specialized engineering applications, databases, programs, and graphics.
- 10. As assigned, performs surveys and analyses of traffic conditions, traffic volume, accidents, traffic hazards, parking, signing, and signal coordination; participates in planning of improvements and makes recommendations concerning street lighting, parking leading zones, and on- and off-street parking.
- 11. Responds to questions and inquiries from the public, developers, contractors, engineering professionals and City staff regarding engineering and development projects.
- 12. Prepares special engineering studies and reports.
- 13. As assigned assists in overseeing public works inspectors; reviews and approves inspection reports as necessary; resolves conflicts between developers, contractors, and City inspectors.
- 14. Assists in the design and development of public works structures and the preparation of project specifications; consults with contractors; reviews plans submitted by consultants and developers to ensure conformity with established standards and regulations; assists in providing advice and instruction to subordinates on design standards and problems from the planning phase to completion of the project; prepares, reviews, and recommends change orders.
- 15. Prepares and provides complex engineering reports, correspondence, staff reports, ordinances and resolutions to the City Manager, City Council, committees, City departments, outside agencies, and the public; develops and reports statistics; makes oral presentations and participates in organizational and community group meetings; responds to questions and inquiries and investigates complaints concerning engineering problems.
- 16. Coordinates assigned activities with consultants, engineers, developers, contractors, other City departments and divisions, and outside agencies.
- 17. Serves as liaison for assigned section with other departments, divisions, and outside agencies; responds to and resolves issues and concerns related to assigned area of responsibility.
- 18. Attends and participates in professional group meetings; stays abreast of new trends and innovations in the field of civil engineering.
- 19. Performs related duties as required

Senior Associate Engineer:

- 1. Plans, trains, and reviews the work of assigned staff and/or consultants responsible for performing professional and technical level engineering and inspection duties in support of engineering services and activities.
- 2. Participates in the development of goals and objectives as well as policies and procedures; makes recommendations for changes and improvements to existing standards, polices, and procedures; participates in the implementation of approved policies and procedures; monitors work activities to ensure compliance with established policies and procedures.
- 3. Prepares various grant applications; administers state and federal grants.

CITY OF SUISUN CITY Assistant/Associate/Senior Engineer (Continued)

- 4. Verifies the work of assigned staff and/or consultants for accuracy, proper work methods, techniques, and compliance with applicable standards and specifications; ensures adherence to safe work practices and procedures.
- 5. Prepares and evaluates requests for proposals (RFPs) relating to projects requiring contract engineering work; participates in the review and selection of consultants; reviews plans, and other documents prepared by consulting/engineering firms and evaluates their performance; ensures plan check comments are in accordance with engineering practices and city requirements; advises regarding construction contract modifications and negotiates contract changes.
- 6. Oversees and participates in reviewing preliminary plans for future projects as necessary.
- 7. Oversees and participates in preparing designs and specifications for assigned projects in streets, lighting, storm drainage, right-of-way, traffic, landscape, structures, and related areas; develops engineering drawings, construction plans, specifications, contract documents, bid documents, calculations, and cost estimates for proposed projects; researches project design requirements; prepares estimates of time and material costs.
- 8. Serves as a project manager for a wide variety of public works projects.
- 9. Participates in complex projects during construction; conducts or oversees field inspections of construction sites to monitor progress and ensure conformance to engineering plans, specifications, and construction and safety standards; meets with contractors to resolve items of non-compliance; negotiates change orders; makes corrections or revisions to plans and provides input on conditions of approval; reviews and approves pay estimates; prepares project close-out documents.
- 10. Prepares and reviews legal descriptions and maps.
- 11. Oversees and participates in performing plan check, review, and processing of plans and specifications for land development projects affecting City grading, streets, lighting, storm drainage, rights-of-way, traffic, and related areas; ensures compliance with professional and City standards and practices; provides information and investigates complaints and service requests; coordinates reviews with other departments and agencies.
- 12. Oversees and participates in preparing Conditions of Development for various land development projects.
- 13. Reviews environmental assessments, environmental impact reports, tract and parcel maps, variances and conditional use permits to ensure compliance with appropriate engineering regulations.
- 14. Participates in acquiring permits from regulatory agencies and acquiring state and federal funding.
- 15. Responds to questions and inquiries from the public, developers, contractors, engineering professionals, and city staff regarding engineering and development projects.
- 16. Oversees and participates in preparing a variety of engineering environmental, studies, and technical documentation and correspondence related to engineering projects and other specialized studies.
- 17. Coordinates assigned activities with consultants, engineers, developers, contractors, other city departments and divisions, and outside agencies.
- 18. Identifies, secures, and administers outside funding for projects.

CITY OF SUISUN CITY Assistant/Associate/Senior Engineer (Continued)

19. Attends and participates in professional group meetings; attends and makes presentations to committe es and commissions; stays abreast of new trends and innovations in the field of engineering design and construction management.

QUALIFICATIONS

The following generally describes the knowledge and ability required to enter the job and/or be learned within a short period of time in order to successfully perform the assigned duties.

Knowledge of:

Operations, services, and activities of a municipal engineering design and construction program.

Modern and complex principles and practices of civil engineering.

Principles and practices of traffic engineering.

Structural, street, and highway design principles.

Scientific and mathematical principles as applied to civil engineering work.

Principles and practices of project management and administration.

Methods and techniques of contract negotiations and administration.

Principles and practices of project budget preparation and control.

Methods, materials, and techniques used in civil engineering projects including those used in the design and construction of development projects.

Mechanics and properties of materials.

Methods and techniques of engineering plan review and analysis.

Methods and techniques of conducting site and field investigation.

Principles and practices of field surveying including topographic and construction surveying.

Drafting methods, techniques, and equipment including those used in computer aided drafting.

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.

Modern office procedures, methods, and equipment including computers and supporting word processing, spreadsheet applications, and specialized engineering software programs.

Principles and practices of geographic information systems programs.

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 capital improvement projects.

Serve as the project manager on one or more Capital Improvement Projects.

Prepare, review, interpret, analyze, and modify engineering plans, drawings, specifications, contract documents, and engineering reports for conformance to professional standards and approved budgets.

Perform engineering computations and calculations.

Analyze and evaluate design drawings and specifications.

Prepare and manage project budgets.

Negotiate with citizens, property owners, businesses, and other agencies.

Maintain detailed project management records and documentation.

Prepare clear and concise administrative and technical reports.

Interpret, apply, and ensure compliance with pertinent federal, state, and local laws, codes, and regulations.

Interpret, explain, and enforce department policies and procedures.

Administer programs involving Federal, state, and local grants.

Safely and effectively operate engineering tools and equipment.

Respond to questions and inquiries from a variety of sources regarding engineering and development projects.

Research, review, update, and revise existing ordinances, policies, and design standards.

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.

Communicate clearly and concisely, both orally and in writing.

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

In addition to the above knowledge and abilities, the Senior Associate Engineer may be required to possess the following knowledge and abilities:

Knowledge of:

Principles and practices of supervision and training.

Ability to:

Effectively oversee and act as a project manager on a wide variety of public works projects. Provide leadership; schedule, assign, direct, train and/or evaluate the work of staff and/or consultants. Assign projects, organize work, set priorities, and exercise independent judgment. Manage day-to-day activities of planning activities.

Education and Experience Guidelines - Any combination of education and experience that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

Assistant Engineer

Education/Training:

A Bachelor's degree from an accredited college or university with major course work in civil engineering or related field.

Experience:

Some professional engineering experience is desirable.

License or Certificate:

Possession of, or ability to obtain, an appropriate valid California Class C Driver's License.

Possession of a valid certificate of registration as an Engineer-in-Training, issued by the California State Board of Registration for Civil and Professional Engineers is desirable.

Associate Engineer

Education/Training:

A Bachelor's degree from an accredited college or university with major course work in civil engineering or related field.

Experience:

Two years of increasingly responsible professional engineering experience comparable to an Assistant Engineer with the City of Suisun City.

License or Certificate:

Possession of, or ability to obtain, an appropriate California Class C Driver's License.

Possession of a valid Engineer in Training Certificate; registration as a Civil Engineer issued by the California State Board of Registration for Civil and Professional Engineers is desirable.

Senior Associate Engineer

Education/Training:

A Bachelor's degree from an accredited college or university with major course work in civil engineering or related field.

Experience:

Four years of increasingly responsible professional engineering experience comparable to an Associate Engineer with the City of Suisun City;

OR Six years of professional engineering experience in the public works environment.

Experience performing contract administration, plan review, and coordination of funding sources is highly desirable.

License or Certificate:

Possession of, or ability to obtain, an appropriate California Class C Driver's License.

Possession of a valid Engineer in Training Certificate; registration as a Civil Engineer issued by the California State Board of Registration for Civil and Professional Engineers is desirable.

PHYSICAL DEMANDS AND WORKING ENVIRONMENT

The conditions herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential job functions.

Environment: Standard office setting with some travel to conduct site investigations; occasional exposure to outside weather conditions; work and/or walk on various types of surfaces including slippery or uneven surfaces and rough terrain.

Physical: 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 climb unusual heights on ladders; 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.

Vision: See in the normal visual range with or without correction.

Hearing: Hear in the normal audio range with or without correction.

October, 2006 Johnson & Associates

Revised March, 2022 – CPS-HR