

CITY OF MADERA

SENIOR CIVIL ENGINEER

*Class specifications are only intended to present a descriptive summary of the range of duties and responsibilities associated with specified positions. Therefore, specifications **may not include all** duties performed by individuals within a classification. In addition, specifications are intended to outline the **minimum** qualifications necessary for entry into the class and do not necessarily convey the qualifications of incumbents within the position.*

DEFINITION:

Under direction, manages City capital improvement projects and provides a high level of professional and technical civil engineering work related to public and private project development including application of City requirements and other regulations; performs a variety of the most difficult and complex professional office and field engineering work; prepares and/or reviews plans, designs, and specifications for a variety of City and private development projects; manages, reviews and directs work prepared by outside consultants; provides project direction, work coordination, and training for other professional, paraprofessional, and technical engineering staff; performs related work as required.

DISTINGUISHING CHARACTERISTICS:

The **Senior Civil Engineer** is an advanced journey level registered civil engineering classification in the professional civil engineering class series. Assignments are given in general terms with incumbents exercising considerable independent judgment and discretion in the application of the principles and practices of planning, design, construction and the administration of a variety of projects to include but not be limited to public works projects including streets, water, sewer and storm drain systems; City parks; building projects and airport projects. The Senior Civil Engineer is distinguished from the next higher position of Deputy City Engineer in that the higher position acts as a division manager and also acts as the Engineer-in-Charge in the absence of the City Engineer.

SUPERVISION RECEIVED/EXERCISED:

Receives general supervision from the City Engineer or Deputy City Engineer. May exercise technical and/or functional supervision over other professional, paraprofessional and technical engineering staff members.

ESSENTIAL FUNCTIONS: *(include but are not limited to the following)*

- Acts as project manager for design and construction activities on a variety of public works projects including street, storm drainage facilities, sanitary sewer facilities, park development, landscaping, irrigation pipelines, water production and distribution facilities, and buildings; performs field inspections; develops design procedures;

prepares plans, specifications, value engineering, project budget and cost estimates; interprets the application of design criteria; checks plans and specifications for accuracy of design and completeness.

- Coordinates capital improvement projects with contractors, utility companies and other agencies including but not limited to Caltrans, Madera County, Madera Irrigation District, and other State and Federal agencies; administers construction contracts; supervises staff on construction sites; performs field inspections; plans, coordinates, prioritizes, monitors and participates in the work of staff responsible for reviewing design conformance and accuracy of public and private development projects.
- Plan checks plans and specifications for the construction of capital improvement projects.
- Develops, reviews, approves and implements project schedules and contract bid documents.
- Possesses extensive working knowledge of Caltrans: Local Assistance Procedures Manual, Standard Plans and Specifications, the Manual of Uniform Traffic Control Devices, Highway Design Manual and other similar manuals. Possesses a working knowledge of applicable building codes.
- Independently solves difficult or unusual design and construction problems and assists in the implementation of citywide infrastructure objectives. Assures that individuals whose functions require knowledge and understanding of the general contract and subcontract requirements receive and understand the information.
- Prepares and provides complex engineering reports, correspondence, staff reports, ordinances, and resolutions to the City Administrator, City Council, committees, City departments, outside agencies and the public; makes oral presentations and participates in organizational and community group meetings; responds to questions and inquiries, and investigates complaints.
- Initiates, establishes and maintains working relationships with lead departments, architects/engineers, public agencies, utility companies and contractors to facilitate design and construction activities. Organizes, conducts and represents the City at project coordination meetings at regular agreed upon intervals.

WORKING CONDITIONS:

Position requires sitting; standing; walking on level, uneven and slippery surfaces; reaching; twisting; turning; kneeling; bending; stooping; squatting; crouching; grasping; crawling and making repetitive hand movement in the performance of daily duties. Tasks may involve extended periods of time at a keyboard or workstation. The position also requires both near and far vision when inspecting work and operating assigned equipment, and acute hearing is required when providing phone and face-to-face service. The need to lift, carry, pull and push tools, supplies and other equipment

weighing up to 25 pounds is also required. Additionally, the incumbent in this position works outdoors in all weather conditions including wet, hot and cold. The incumbent will be required to traverse construction project sites that may include uneven walking surfaces and open trenches. The position entails working in situations that may expose the employee to fumes or airborne particles, electrical shock or mechanical hazards. The nature of the work also requires the incumbent to climb ladders and drive motorized vehicles.

QUALIFICATIONS: *(The following are minimal qualifications necessary for entry into the classification.)*

Experience and Education:

Any combination of education and experience that has provided the knowledge, skills and abilities necessary for a Senior Civil Engineer may be considered qualifying. A typical way of obtaining the required qualifications is to possess the equivalent of four years of increasingly responsible Civil Engineering experience, including two years as a project manager, and a Bachelor's degree in Civil Engineering.

License/Certificate:

Possession of, or ability to obtain, a valid Class C California driver's license and possession of a valid certificate of registration as a Civil Engineer, issued by the California State Board of Registration for Civil and Professional Engineers. For all Civil Engineers registered after 1982, Land Surveyor Certificate is desirable.

KNOWLEDGE, SKILLS AND ABILITIES:

Knowledge of:

Principles, procedures, practices and standards of civil engineering and surveying relating to the preparation and evaluation of plans and specifications for public and/or private construction; construction methods, materials, approved standards of safety for occupational hazards; municipal engineering laws, ordinances, codes, specifications and plans; applicable federal, state and local laws, codes, and regulations including Madera Municipal Code, ordinances, and codes related to building construction and engineering project inspection methods; contract administration; modern office practices, methods and equipment; operational characteristics and use of standard equipment used in the engineering profession.

Ability to:

Prepare accurate plans, specifications, cost estimates and engineering reports; make accurate engineering computations; analyze and evaluate design drawings and specifications; learn and apply established principles and practices of

municipal civil engineering; promote and enforce safe work practices; analyze and successfully negotiate complex transactions involving significant amounts of capital, property, property owner rights and public responsibilities; communicate clearly and concisely, both orally and in writing; establish and maintain effective working relationships.

Skill to:

Operate an office computer and a variety of word processing, spreadsheet, email and related software applications; safely and effectively operate engineering tools and equipment.

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