

CITY OF IRWINDALE

ASSISTANT ENGINEER

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

SUMMARY DESCRIPTION

Under general supervision, performs a variety of field and office engineering design, construction management, and plan checking related to a wide variety of public facilities and capital improvement projects including the preparation of preliminary and final plans, specifications, and cost estimates using CADD and other computer software; participates in resolving engineering issues in connection with standards and designs associated with maintaining and constructing City streets, traffic signals, sewers, sidewalks, drainage facilities, and structures; and performs a variety of duties related to public works projects and programs, traffic operations, and mining operations.

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.

1. Provides support for the design, preparation, and construction engineering of capital improvement projects including controlling cost and scheduling; oversees and coordinates contractors, consultants, vendors, and city staff to execute and complete capital projects; negotiates, administers, and control public works contracts and documents.
2. Designs and prepares drawings, plans, specifications, cost/quantity estimates, and reports for public works maintenance projects for streets, sewers, sidewalks, storm drains, and traffic signals.
3. Prepares capital improvement project bid packages; evaluates construction bids/proposals and recommends award of contract for public work projects.
4. Provides support for the review and approval of plans and reports for private development projects.
5. Performs field/construction inspections and surveys; conducts final inspections of construction projects to ensure conformance with plans and specifications.
6. Prepares reports and provides recommendations related to civil engineering projects including traffic, transportation, capital improvement projects and other specialized projects.
7. Oversees traffic signal and street lighting maintenance; oversees maintenance contracts for storm drains, catch basins, sewers, and pump stations.
8. Provides support for traffic accident investigations; organizes and compiles traffic collision reports as needed.
9. Records, investigates, and resolves public complaints regarding public infrastructure.
10. Processes and issues encroachment permits and coordinates inspection of related improvements.
11. Assists in the preparation of legal descriptions for easements, deeds, and annexations.
12. Provides assistance to contractors, engineers, and the general public on engineering policies and procedures.
13. Performs related duties as required.

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.
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.
Basic principles and practices of project management and administration.
Methods and techniques of contract negotiations and administration.
Basic 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.
Methods and techniques of engineering plan review and analysis.
Methods and techniques of conducting site and field investigation.
Principles and practices of field 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 a variety of professional engineering duties involved in the design, development, and construction management of a variety of construction/capital improvement projects.
Assist in the project management of assigned design and construction projects.
Prepare, review, interpret, analyze, and modify engineering plans, drawings, specifications, contract documents, and engineering reports for conformance to professional standards and approved budgets.
Collect, assimilate, and evaluate data and prepare recommendations related to civil engineering projects.
Perform engineering computations and calculations.
Prepare bid documents, contract documents, specifications, cost estimates and engineering drawings.
Inspect public works projects for conformance with plans and specifications.
Interpret, apply, and ensure compliance with pertinent federal, state, and local laws, codes, and regulations.
Interpret, explain and enforce department policies and procedures.
Respond to questions and inquiries from a variety of sources regarding engineering and development projects.
Prepare clear and concise administrative and technical reports. Conduct analytical traffic studies accurately and reliably.
Use and care for engineering, surveying, and drafting instruments and equipment. Work independently in the absence of supervision.
Understand and follow oral and written instructions.

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

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:

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 engineering experience.

License or Certificate:

Possession of an appropriate, valid driver's license.

Possession of a valid Certificate of Registration as an Engineer-In-Training from the State of California.

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 these essential job functions.

Environment: Standard office setting with some travel to conduct site investigations; occasional exposure to outside weather conditions; incumbents may be required to work extended hours including evenings and weekends.

Physical: Primary functions require sufficient physical ability to work in an office setting; stand or sit for prolonged periods of time; operate office equipment including use of a computer keyboard; ability to verbally communicate to exchange information; ability to operate a vehicle to travel to various locations and meetings.

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

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

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Ralph Andersen & Associates