

THE CITY OF LOS ANGELES



CIVIL SERVICE COMMISSION

CLASS SPECIFICATION

5/7/82

CIVIL ENGINEER, 7237

Summary of Duties: Performs professional civil engineering work in the supervision of an engineering group involved in the preparation of plans, designs, specifications, environmental impact reports, engineering economic and cost analysis studies, estimates and reports; directs field engineering activities associated with the planning, quality assurance, construction, testing, maintenance and operation of a wide variety of civil engineering projects and systems; acts as the supervising engineer responsible for all technical and administrative aspects of a project; may direct an engineering group involved with regulatory coordination and analysis; and does related work.

Distinguishing Features: The work of an employee of this class frequently involves the investigation of engineering problems and design of structures in connection with major engineering projects and requires the exercise of considerable independent judgment. A Civil Engineer usually receives assignments in general terms that outline the type of project, location, and basic design. While an employee of this class is responsible for the soundness of engineering features of design and is permitted considerable individual discretion, work is reviewed for adherence to objectives and policies defined in the assignment. This class covers the entire field of civil engineering, particularly as related to the design, construction, and inspection of public works and water and power projects and may require coordination with the geological, electrical, structural, architectural, mechanical, environmental or financial features of civil engineering projects. In contrast to the class of Civil Engineering Associate, the work of an employee of this class may include overall administrative duties of substantial responsibility. A Civil Engineer is a full-time supervisor and is not usually involved in detailed engineering except to give technical advice to subordinates handling complex problems. Although the Civil Engineer assumes the overall responsibility as lead engineer, some or all of the responsibility may be delegated to subordinate employees.

Example of Duties:

- Supervises the investigation, design, and preparation of specifications, plans, estimates, permits and reports involved in the construction and maintenance of roads, streets, freeways, bicycle facilities, parkways, transit systems and facilities, drainage and flood control systems, sewage systems, treatment plants, bridges, wharves, marine structures, runways, taxiways, aircraft aprons, transmission towers, power plants, tunnels, penstocks, dams, reservoirs, spillways, hydraulic structures, and waterways;
- Directs the estimating of costs and appraisals of public or utility improvements, including quantity estimates and the determination of prices of materials, labor, and equipment;
- Directs the collection, recording, analysis, and presentation of data relative to electric power resources and fuel supplies for steam generation;

- Coordinates design of buildings, bridges, and other structures with architectural treatment and mechanical and electrical features;
- Supervises field engineering activities, including the preparation of plans for structures and facilities, the scheduling of inspections, the procurement of materials and equipment and the preparation of progress and final reports;
- Makes field trips to inspect project or construction sites;
- Directs field surveying activities;
- Does research and makes investigations in connection with power developments;
- Investigates power capabilities of projects or stream basins;
- May supervise a group of employees engaged in compiling, interpolating, and estimating hydrological records and related sedimentation, evaporation, depletion, and pollution records;
- Directs the preparation and maintenance of maps and records;
- Confers with representatives of other public agencies and public utilities and attends public hearings;
- Coordinates regulatory or legislative activities;
- Supervises assessment project processing and financing activities, including presentations to City Council, determining preliminary financing and final amounts to be paid, and monitoring assessment projects from inception through completion of construction;
- Supervises the engineering and mapping activities relative to division of land;
- Supervises the activities of street vacation right-of-ways and property rights;
- May be assigned to other duties for training purposes or to meet technological changes or emergencies.

Qualifications

Knowledge of:

A good knowledge of:

- Mechanics of materials, testing of materials, and hydraulics;
- Civil engineering methods and practices followed in preparing designs, plans, specifications, estimates, and reports as applied to roads, street improvements, freeways, bicycle facilities, transit systems and facilities, storm drains, sanitary sewers, sewage pumping and treatment plants, reinforced concrete, steel, and timber bridges, transmission line location, earthworks, water and power developments, tidal currents, littoral deposits, earth slides and subsidence, hydraulic and hydroelectric structures, tunnels, and marine structures;
- Field engineering including surveying, inspection, and construction practices;
- The sources of engineering information;
- Hydrological data;
- Safety principles and practices;

A working knowledge of:

- The laws and regulations related to equal employment opportunity and affirmative action;

A general knowledge of:

- City personnel rules, policies and procedures;
- Memoranda of understanding as they apply to subordinate personnel;
- The California Street and Highways Code provisions pertaining to assessment improvement projects and City government;
- The Los Angeles Municipal Code;
- The subdivision map act and City policies and procedures on division of land.

Ability to:

- Properly evaluate foundation and other construction conditions to secure the required safety and maximum economy, as well as to meet minimum requirements as set forth in plans and specifications;
- Plan, lay out, direct, review and control the work of a group of engineering subordinates;
- Coordinate the work of a unit with a general program or a specific problem;
- Communicate effectively, both orally and in writing.

Requirements: Two years of engineering experience at the level of Civil Engineering Associate is required.

License: A valid California driver's license may be required.

Registration: Registration as a Civil Engineer with the California State Board of Registration for Professional Engineers is required.

Physical Requirements: Strength to perform average lifting of less than 5 pounds and occasionally over 15 pounds; good speaking and hearing ability; and good eyesight.

Persons with disabilities may be able to perform the essential duties of this class with reasonable accommodation. Reasonable accommodation will be evaluated on an individual basis and depend, in part, on the specific requirements for the job, the limitations related to the disability, and the ability of the hiring department to reasonably accommodate the limitations.

As provided in Civil Service Commission Rule 2.5 and Section 4.55 of the Administrative Code, this specification is descriptive, explanatory and not restrictive. It is not intended to declare what all of the duties, responsibilities, and required qualifications of any position shall be.