January 1, 2025
(Revised)

CLASS SPECIFICATION

SAN DIEGO CITY CIVIL SERVICE COMMISSION

ASSOCIATE ENGINEER – ELECTRICAL - 1223

DEFINITION:

Under direction, to plan and supervise field and office work in connection with the design, review, and inspection of electrical systems in streets, utility installations, buildings, and other structures; and to perform related work.

* **EXAMPLES OF DUTIES:**

- Assigns work, gives instructions, and approves engineering standards, specifications, and designs for the generation, transmission, and use of electricity;
- Supervises field inspection to check on compliance with electrical and safety regulations;
- Administers and inspects the construction of electrical upgrade projects, traffic signals, and street lighting to ensure compliance with plans, specifications, and contract requirements;
- Writes electrical instrumentation and control specifications and contract documents;
- Performs electrical or electronic design work on lighting, communications, and signal systems;
- Makes field inspections of electrical work requiring the knowledge and responsibility of an electrical engineer;
- Confers with the department and division heads, contractors, and other agencies concerning interpretations of electrical ordinances;
- Conducts studies and prepares revisions and amendments to the electrical code;
- Utilizes Geographic Information System (GIS) applications;
- Utilizing Splash, Sharq, SAP, and other software to post and update project information and schedules and manage financial aspects of an engineering project;
- Prepares reports and releases relating to the electrical code for distribution to architects, building contractors, and other interested parties;
- Prepares sketches, layouts, material lists, and cost estimates;
- Supervises the administration of the electrical code.

MINIMUM QUALIFICATIONS:

Please note: the minimum qualifications stated below are a guide for determining the education, training, experience, special skills, and/or license which may be required for employment in the class. These are re-evaluated each time the position is opened for recruitment. Please refer to the most recent Job Description for updated minimum qualifications: https://www.governmentjobs.com/careers/sandiego/classspecs.

College graduation with a Bachelor's Degree in Electrical Engineering; **OR** certification as an Engineer-in-Training issued from a state licensing board; **OR** registration as a professional

* **EXAMPLES OF DUTIES** performed by employees in this class. The list may not include all required duties, nor are all listed tasks necessarily performed by everyone in this class.

Electrical Engineer with a state licensing board, **AND** three years of full-time professional electrical engineering experience which must include at least two of the following options: 1) Electrical design that includes preparation of design, load calculations, specifications, single line diagram, and Title 24 for residential, commercial, industrial and all other building projects. 2) Electrical plan checking of residential, commercial or industrial buildings for compliance with California Electrical Code, National Electric Code, or equivalent. 3) Field engineering to inspect and solve complex electrical engineering problems. 4) Electrical system design, that includes load calculations and preparation of design specifications for public works projects, water or wastewater treatment facilities. 5) Electrical plan checking of traffic signals, flashing beacons, street lighting, airport electrical systems, interconnect systems, sport and park lighting and fiber optic cable installation and testing. 6) Electrical plan checking for public works projects, water or wastewater treatment facilities. 7) Management of Instrumentation and Control (I&C) system project to design and implement public works projects, industrial or commercial systems, and/or water or wastewater treatment systems. 8) Control Systems or Instrumentation and Control (I&C) design and plan checking for water and/or wastewater treatment facilities.