

Senior Mechanical Engineer, Caltrans (Specialist)

California State Personnel Board Specification

- **Schematic Code:** GM20
- **Class Code:** 2178
- **Established:** 01/31/1989
- **Revised:** 01/09/2007
- **Title Changed:** --

Definition

Under general direction, in a staff specialist capacity, to perform the more difficult and complex work in specialized areas of mechanical engineering as applied to transportation systems; and to do other related work.

Typical Tasks

Evaluates, develops, and implements departmental policies related to the design, construction, and maintenance of mechanical systems for transportation facilities; performs difficult and complex work on specialized mechanical engineering projects or research studies; writes technical specifications; performs field tests for final acceptance of equipment; represents the Department on complex special assignments such as research studies; provides training and consultation to Headquarters and district engineers on specialized mechanical engineering problems; attends and conducts meetings with outside agencies and the general public concerning California policy and design procedures; coordinates the work of engineers and contractors; confers with manufacturers' agents and contractors regarding acceptability of equipment; dictates correspondence; and prepares reports.

Minimum Qualifications

Possession of a valid certificate of registration as a Mechanical Engineer issued by the California Board for Professional Engineers and Land Surveyors. (Candidates who submit proof that they have applied for registration will be admitted to the examination, but must possess a valid certificate of registration to be appointed.) and Either I Experience: One year of experience performing the duties of an Associate Mechanical Engineer, Caltrans, or Mechanical Engineer, Range D, in the California state service.

OR II

Experience: Five years of professional mechanical engineering experience, at least two years of which shall have been in design, construction, and maintenance work in several of the following fields: drainage pumping plants, sewage lift stations, vehicular tunnel ventilation systems, movable bridge machinery, roadside rests, highway maintenance stations, solar heating systems, and heating, ventilating, and air conditioning. (The two years of specialized experience must be comparable in level of responsibility to that of an Associate Mechanical Engineer, Caltrans, or Mechanical Engineer, Range D, in the California state service.)

Knowledge and Abilities

Knowledge of: The preparation of plans, specifications, and estimates for the mechanical systems of transportation-related facilities; mechanical theory and practice; mechanical equipment; power distribution and control systems; various codes, safety orders, and regulations governing the design and installation of mechanical equipment; and materials and maintenance of mechanical installations.

Ability to: Prepare plans, specifications, and estimates for the mechanical systems of transportation-related facilities; coordinate the work of others; make construction and maintenance inspections; check drawings and specifications; establish and maintain cooperative relations with those contacted in the work; analyze situations and adopt an effective course of action; and prepare correspondence and reports.

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