



SENIOR ENGINEER

JC: EF501
PB: 7
FLSA: Exempt

BU: 92 (NR)
Created: November 2002
Updated: June 2019

*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.*

DEFINITION

Performs complex professional engineering, design or construction project duties for the District; prepares engineering plans and specifications; as assigned to act as Resident Engineer on assigned project; ensures work quality and adherence to established specifications; and performs related duties as assigned.

CLASS CHARACTERISTICS

This is the advanced journey level class in the Engineer series. Positions at this level possess a specialized, technical or functional expertise within the area of assignment or may exercise lead supervision over assigned lower level staff. This class is distinguished from the Principal Engineer in that the latter performs the most complex duties assigned to the series or serves in a working supervisory capacity over lower level District or contracted staff.

EXAMPLES OF DUTIES – *Duties may include, but are not limited to, the following:*

1. Performs complex engineering design or construction project duties; as assigned, may serve as Resident Engineer on construction projects; may direct contract resident engineers on assigned project.
2. Establishes schedules and methods for providing contract administration services; inspects and verifies quantities of materials, and monitors adherence to specifications; identifies resources needed.
3. Monitors progress of engineering design or construction projects; makes recommendations on resources to be allocated.
4. Assists in the development of policies and procedures; monitors work activities to ensure compliance with established policies and procedures; makes recommendations for changes and improvements to existing standards and procedures.
5. Recommends and assists in the implementation of goals and objectives; implements approved policies and procedures.

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6. Recommends approval of and submits contractor's progress payment applications; maintains documentation of contract deficiencies.
7. Prepares engineering designs, specifications, costs and quantity estimates for engineering projects; reviews the adequacy and accuracy of computations.
8. Administers control of required documentation for contracts; prepares a variety of reports and correspondence on engineering design or construction matters including Inspector's Daily Reports, monthly and final completion reports, contract modifications and negotiations, field and design engineering changes, and correspondence with the contractor on contractual obligations.
9. Initiates and evaluates design and field engineering changes during construction; makes field measurements of completed items of work; inspects construction at substantial and final completion states.
10. As assigned, participates in the selection of engineering staff; provides or coordinates staff training; works with employees to correct deficiencies; implements discipline procedures.
11. Participates in the preparation and administration of the program budget; submits budget recommendations; monitors expenditures.
12. Prepares analytical and statistical reports on operations and activities.
13. Attends and participates in professional group meetings; stays abreast of new trends and innovations in the field of engineering design and construction.

QUALIFICATIONS

Knowledge of:

- Principles and practices of engineering discipline in assigned area
- Operations, services and activities of an engineering design and construction program
- Principles and practices of project scheduling and oversight
- Principles, practices, methods and techniques of contract management
- Methods and techniques of field measuring and testing
- Principles and practices of engineering cost estimating
- Terminology, methods, practices and techniques used in technical engineering report preparation
- Advanced mathematical principles
- Construction contract administration and management
- Principles of lead supervision and training
- Current office procedures, methods, and equipment including computers
- Specialized computer programs or systems utilized in construction engineering project design including CADD
- Materials and equipment used in construction engineering projects
- Related building codes, regulations and provisions
- Related Federal, State and local laws, codes and regulations

Skill/Ability in:

- Developing, reviewing, and modifying complex engineering plans, designs, and specifications

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- Leading, organizing and reviewing the work of lower level staff
- Interpreting and explaining District policies and procedures
- Preparing clear and concise reports
- Overseeing and administering contracts
- Overseeing assigned engineering construction projects
- Analyzing engineering problems, evaluating alternatives, and recommending solutions
- Interpreting and preparing revisions to engineering plans, drawings, and specifications
- Conducting and overseeing field inspections, measurements, and testing
- Communicating clearly and concisely, both orally and in writing
- Establishing and maintaining effective working relationships with those contacted in the course of the work

MINIMUM QUALIFICATIONS

Education:

Possession of a Bachelor's degree in engineering or a closely related field from an accredited college of university.

Experience:

Three (3) years of (full-time equivalent) verifiable experience in engineering project administration.

Other Requirements:

Must possess a valid California driver's license and have a satisfactory driving record.

Substitution:

Additional professional experience as outlined above may be substituted for the education on a year-for-year basis. A college degree is preferred.

WORKING CONDITIONS

Environmental Conditions:

Office environment; exposure to computer screens; field environment; travel from site to site; construction site environment; exposure to noise, dust, grease, smoke, fumes, gases, heat, cold, and inclement weather conditions.

Physical Conditions:

May require maintaining physical condition necessary for walking, standing or sitting for prolonged periods of time.

BART EEO-1 Job Group: 3000 – Engineers
Census Code: 1530 – Miscellaneous Engineers
Safety Sensitive: N