



PRINCIPAL CONSTRUCTION ENGINEER

JC: EF262

PB: 8

BU: 95 (NR)

FLSA: Exempt

*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 the most complex engineering tasks relative to an assigned area of responsibility; administers and participates in all design or construction project activities; ensures work quality and adherence to established policies and procedures; may supervise, assign, and review the work of staff responsible for District engineering, design or construction projects; and performs related duties as assigned.

CLASS CHARACTERISTICS

This is the working supervisory level in the Construction Engineer series. This classification performs the most complex work assigned to the series or may be responsible for supervising, assigning and reviewing the work of subordinate or contracted engineering staff. This classification may also be responsible for overseeing the work of outside consultants or assisting higher level managerial staff in planning and evaluating the quantity and quality of work performed by subordinate staff. This classification is distinguished from the Senior Construction Engineer in the latter is possess a specialized, technical or functional expertise within the area of assignment or may act as lead over assigned lower level staff.

REPORTS TO

This position reports to a supervisory or managerial position and/or designee.

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

1. Assumes responsibility for planning, budgeting, overseeing, and implementing the most complex and large-scale construction projects for the District.
2. Establishes schedules and methods for providing project administration services; oversees the inspection and verification of quantities of materials; ensures adherence to specifications; identifies resource needs; monitors progress of large scale construction projects; allocates resources accordingly.
3. Participates 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.

Principal Construction Engineer

Page 2

4. Recommends and assists in the implementation of goals and objectives; implements approved policies and procedures.
5. Plans, prioritizes, assigns and may supervise and review the work of staff responsible for performing a variety of professional engineering, design or construction project duties; may serve as resident engineer, or supervise those assigned as resident engineer on assigned construction project.
6. Represents the District with full authority to enforce contract requirements; evaluates proposed contract changes; prepares independent engineering cost estimates of revised project scopes; inspects construction at substantial and final completion stages.
7. Participates in the selection of contracted staff; provides or coordinates staff training; works with employees to correct deficiencies; implements discipline procedures.
8. Participates in the preparation and administration of assigned program budget; submits budget recommendations; monitors expenditures.
9. Prepares analytical and statistical reports on assigned project operations and activities.
10. Initiates and evaluates design and field engineering changes during construction; recommends approval of and submits contractor's progress payment applications; recommends retention levels as appropriate.
11. Coordinates with other divisions, departments and outside agencies on areas of work within their jurisdiction; administers control of required documentation for construction contracts.
12. Prepares or reviews a variety of reports and correspondence on assigned construction projects including Inspector's Daily Reports, monthly and final completion reports, contract modifications and field or design engineering changes.
13. Attends and participates in professional group meetings; stays abreast of new trends and innovations in the field of engineering design and construction.
14. Participates in the resolution of construction contract claim issues.

QUALIFICATIONS

Knowledge of:

- Principles and practices of engineering design or construction contract management.
- Operations, services and activities of a comprehensive engineering design or construction program.
- Principles and practices of project scheduling and management.
- Principles, practices, methods and techniques of construction contract management.
- Principles and practices of engineering cost estimating.
- Methods and techniques of field measuring and testing.
- Methods and techniques of conducting facility or construction site inspection.
- Contract administration and management.
- Materials and equipment used in engineering and construction projects.

Principal Construction Engineer

Page 3

- Principles of supervision, training and performance evaluation.
- Current office procedures, methods, and equipment including computers.
- Specialized computer programs or systems utilized in construction engineering project design including CADD.
- Related building codes, regulations and provisions.
- Related Federal, State and local laws, codes and regulations.

Skill in:

- Supervising, organizing and reviewing the work of lower level staff.
- Selecting, supervising, training and evaluating staff.
- Interpreting and explaining District policies and procedures.
- Directing and coordinating various District engineering design and construction projects.
- Preparing design and construction cost estimates.
- Negotiating, managing and administering contracts.
- Preparing clear and concise reports.
- 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:

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

Experience:

Four (4) years of (full-time equivalent) verifiable professional engineering project administration experience.

Other Requirements:

Must be physically able to conduct field inspections and testing as assigned.

Substitution:

Additional professional experience as outlined above may be substituted for the education on a year-for-year basis. A Bachelor's 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 when conducting field inspections and investigations.

Principal Construction Engineer

Page 4

Physical Conditions:

Requires 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 Managers

Safety Sensitive: No

CLASSIFICATION HISTORY

Created :

Revised: June 2004

February 2023