



SENIOR CIVIL ENGINEER

JC: EF255
PB: 7
FLSA: Exempt

BU: 92 (NR)
Created: August 2000
Revised: 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

Under direction, performs complex professional engineering work involving the preparation of engineering design plans and specifications for the development and maintenance of the District's trackage, access roads, parking lots, drainage and other system facilities; 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 Civil 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 Civil Engineer in that the latter performs the most complex work assigned to the series or may serve in a working supervisory capacity over lower level District or contracted staff.

REPORTS TO

This position reports to a higher level engineer or manager.

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

1. Performs advanced civil engineering duties in the preparation of engineering design plans and specifications for the District's trackage, access roads, parking lots, drainage and other.
2. Performs engineering design calculations; prepares engineering design drawings and specifications, calculations, and construction cost estimates; provides design support during construction.
3. Inspects equipment or facility; analyzes and provides recommendations for engineering solutions, repairs, modifications or maintenance.
4. Reviews and responds to engineering submittals, drawings and specifications prepared by outside agencies for construction projects adjacent to District facilities.

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5. Prepares and coordinates the preparation of construction feasibility studies and cost estimates; defines scope and develops conceptual plans; prepares civil engineering design project proposals for management review and approval.
6. Provides assistance in obtaining outside consultant services; schedules consultant proposal submissions; participates in evaluation of consultant proposals.
7. Reviews contractor submittals for conformance to drawings and specifications; interprets plans and specifications for construction staff; prepares and directs design contract revisions and change orders.
8. Initiates and evaluates design and field environment changes during construction; takes field measurements of completed work; inspects construction at substantial and final completion stages.
9. Prepares engineering reports, manuals, and other correspondence related to work activities.
10. As assigned, may participate in the selection of engineering staff; provides engineering guidance to lower level staff in their areas of work including civil engineering design methods, procedures and techniques.
11. Participates in the preparation and administration of the engineering construction 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 civil engineering.
14. As assigned, conducts field inspections, site investigations and field materials testing duties.

QUALIFICATIONS

Knowledge of:

- Operations, services and activities of a comprehensive civil engineering design and construction program
- Principles and practices of civil engineering design and construction
- Principles and practices of project scheduling and management
- Principles and practices of project budgeting
- Methods and techniques of field measuring and testing
- Terminology, methods, practices, and techniques used in civil engineering report preparation
- Principles of lead supervision and training
- Advanced mathematical principles
- Principles and practices of contract administration and management
- 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/Ability in:

- Developing, reviewing, and modifying complex civil construction engineering plans, design, and specifications
- Leading, organizing and reviewing the work of lower level engineering staff
- Independently performing difficult engineering design work
- Preparing and reviewing complex engineering drawings, specifications, and plans
- Developing and preparing engineering project work scopes, criteria, budgets and schedules
- Performing field inspections and taking measurements
- Preparing clear and concise reports
- Analyzing civil engineering problems, evaluating alternatives, and recommending solutions
- Interpreting, explaining District policies and procedures
- Understanding and following oral and written instructions
- Communicating clearly and concisely, both orally and in writing
- Establishing and maintaining effective working relationships with those contacted in the course of work

MINIMUM QUALIFICATIONS

Education:

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

Experience:

Three (3) years of (full-time equivalent) verifiable professional civil engineering experience. Transportation industry or public agency experience is desirable.

License or Certificate:

Registration as a professional engineer in the State of California.

Other Requirements:

- Must possess a valid California driver's license and have a satisfactory driving record
- Must be physically able to conduct field inspections as assigned

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; field environment; construction site environment; exposure to noise, dust, grease, smoke, fumes, gases, heat, cold, and inclement weather conditions when conducting field inspections and investigations.

Physical Conditions:

Requires maintaining physical condition necessary to walk, stand, or sit for prolonged periods of time.

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Census Code: 1360 – Civil Engineers
Safety Sensitive: N