LOS ANGELES UNIFIED SCHOOL DISTRICT
PERSONNEL COMMISSION

CLASS DESCRIPTION
Class Code 1845
Unit E

ASSOCIATE STRUCTURAL ENGINEER

DEFINITION

Performs structural engineering planning, analysis and design; reviews structural work performed by commissioned architects and consulting structural engineers for conformance with District structural standards and policies.

TYPICAL DUTIES

Analyzes, designs and makes computations and calculations for the structural elements of all types of buildings for various load combinations.
Prepares structural design and construction drawings for buildings, retaining walls, foundations, supports, and components, involving the use of structural steel, timber, masonry, reinforced concrete, and other materials.
Assists with the review of proposals from task orders and consultant engineers/ architects.
Assists with the technical review of structural designs, computations, plans, and specifications submitted by commissioned architects and engineers, for accuracy and conformance to standards required by State and local ordinances for school building construction, and refers special problems to a Structural Engineer.
Advises and coordinates structural design with other design professionals.
Prepares studies of dimensional spacing and location of structural elements and reviews structural shop drawings.
Conducts site walks to perform structural assessments, inspections, and coordination to ensure compliance with design and safety standards.
Conducts investigations and prepares reports on the structural features of existing buildings.
Makes cost comparisons of alternate methods of construction.
Confers with architects, engineers, contractors, and inspectors on structural features.
Analyzes soil test data and reviews recommendations for foundation design.
Performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS AMONG RELATED CLASSES

An Associate Structural Engineer reviews the work of commissioned architects and engineers for compliance with District structural engineering design standards and policies; and performs moderately difficult structural engineering requiring a high degree of initiative, judgment, and independence.

A Structural Engineer performs difficult structural engineering work; provides technical direction to District engineering personnel, commissioned architects, and consulting engineers; and signs plans and specifications as a registered engineer.

SUPERVISION

General supervision is received from the Supervising Structural Engineer. Technical supervision is received from the Structural Engineer. Work direction may be exercised over lower-level staff as assigned.

CLASS QUALIFICATIONS

Knowledge of:

- Terminology, symbols, and sources of structural engineering analysis drafting and design information pertaining to building construction
- Structural engineering practices for the expression of ideas, designs, and data in drawings
- State and local codes pertaining to structural engineering features of building construction
- Design principles, computational software, mathematics, and construction industry practices for solution of structural engineering problems
- District structural engineering design standards
- Engineering tests and reports
- Basic soil mechanics and application in order to review geotechnical reports and apply to building foundation design
- AutoCAD or other recognized major computer-aided design software system

Ability to:

- Provide technical review and advice tactfully and effectively
- Interpret architectural and engineering plans and specifications
- Analyze structural engineering problems and formulate solutions
- Create accurate calculations, specifications and drawings
- Write clear, concise reports and technical descriptions
- Work effectively with engineers, architects, school personnel, and representatives of public agencies.
- Identify problems in analysis work and designs prepared by others
- Utilize AutoCAD software to create and update plans and designs
- Communicate effectively, orally and in writing

Special Physical Requirement:

- Agility to climb ladders and scaffolds, walk on roofs, and move safely in partially completed buildings and crawl spaces

ENTRANCE QUALIFICATIONS

Education:

Graduation from a recognized college or university with a bachelor's degree in structural engineering or civil engineering with a focus in structural engineering, or possession of an Engineer-in-Training certificate issued by the California Board of Professional Engineers, Land Surveyors, and Geologists.

Experience:

Three years of structural engineering experience, preferably with school facilities design.

Special:

- A valid license as a Professional Engineer in Civil Engineering issued by the California Board for Professional Engineers, Land Surveyors, and Geologists is preferable.
- A valid driver's license to legally operate a motor vehicle in the State of California and use of a motor vehicle.

This class description is not a complete statement of essential functions, responsibilities or requirements. Entrance requirements are representative of the minimum level of knowledge, skill and/or abilities. To the extent permitted by law, management retains the discretion to add or to change typical duties of a position at any time, as long as such addition or change is reasonably related to existing duties.

Revised
07-17-25
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