

ENGINEERING AIDE

DEFINITION

Assists Architects, Engineers, and drafting technicians by performing routine, non-technical drafting and engineering work.

TYPICAL DUTIES

Performs routine drafting or tracing, sketching, lettering, and delineating.
Takes measurements in the field and prepares sketches and field notes showing dimensions and locations of buildings and grounds areas.
Makes calculations involving the use of algebra, geometry, and trigonometry.
Reads and interprets maps and engineering drawings.
Retrieves technical data, plans, prints, and other information.
Collects and tabulates data for reports.
Scans and electronically indexes and files drawings and miscellaneous technical information.
Assists in the preparation of technical reports and minor project research.
Updates and reproduces maps, blueprints, and other drawings.
Reviews plans for compliance with applicable requirements.
May draw and correct plot plans and plot surveys from survey field notes.
May calculate labor allotments of custodial and gardening personnel.
May maintain files of technical information.
Performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS AMONG RELATED CLASSES

An Engineering Aide performs routine tracing, drafting, and lettering; makes algebraic, geometric, and trigonometric computations; and assists technical personnel by performing routine, non-technical duties related to engineering work.

An Architectural Drafting Technician performs skilled architectural drafting from approved preliminary sketches under the immediate supervision of higher-level architectural personnel, but the technician is not responsible for architectural design.

SUPERVISION

Immediate supervision is received from architectural, engineering, or other technical personnel.
No supervision is exercised.

CLASS QUALIFICATIONS

Knowledge of:

Engineering and architectural terms, concepts, and symbols
Engineering applications of algebra, geometry, and trigonometry
Types and uses of measuring devices
AutoCAD or other recognized major computer-aided design software system
Microsoft Word, Excel, and Outlook

Ability to:

- Perform drafting and lettering utilizing a computer-aided drafting and design program
- Utilize AutoCAD software to create and update plans and designs
- Read and interpret engineering and architectural plans and drawings blueprints, technical reports, maps, diagrams and specifications
- Make neat, clear, and accurate preliminary sketches
- Make accurate field measurements using engineering instruments
- Make detailed and accurate calculations
- Use calculators
- Work effectively with others
- Communicate effectively, both orally and in writing
- Interpret field notes and apply them in performance of routine drafting work
- Use a personal computer, databases, and related electronic equipment to input, edit, scan, extract and format information

Special Physical Requirement:

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

ENTRANCE QUALIFICATIONS

Education:

Graduation from high school or evidence of equivalent educational proficiency.

Experience:

Six months of experience in drafting that included the use of at least one recognized, major computer-aided design software system. Completion of six semester units of college-level courses in architectural or engineering drafting or their equivalent may be substituted for the required experience.

Special:

A valid driver's license to legally operate a motor vehicle in the State of California and the use of a motor vehicle may be required for some positions.

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 change typical duties of a position at any time as long as such addition or change is reasonably related to existing duties.

Revised
06-08-15
VR

Reviewed
07-30-18
LV

Updated
09-15-25
Transportation
Language Only