

GENERAL DESCRIPTION OF CLASS

The FACILITIES ENGINEER 1 applies fundamental engineering principles and methods to design simple or routine mechanical, electrical, civil or other specialized engineering projects.

DISTINGUISHING FEATURES

This is the first level of a three-level series. The simple or routine nature of projects assigned, detailed instructions given about the project objectives and desired results, and the level of supervision given distinguishes this class from the higher levels.

DUTIES AND RESPONSIBILITIES

The duties listed below are not inclusive but characteristic of the type and level of work associated with this class. Individual positions may perform all or some combination of the duties listed below as well as other related duties.

1. Project Design

Visits the project site to determine client needs and gather measurements and other field data, or receives assignments with field data and design concept outlined. Reviews reference materials, manuals, building codes, and vendor specifications. Analyzes data and reviews engineering solutions and alternatives with supervisor.

Applies engineering principles and mathematical calculations to design projects, specify equipment and materials and calculate costs. Using conventional or computer-aided design drafting (CADD) systems, prepares final drawings, specifications, and cost estimates. Oversees and instructs designers, drafters, and other staff working on the project. Writes reports outlining project goals and cost estimates. Presents ideas to clients and answers questions concerning the project.

2. Project Implementation

Establishes a materials list and orders equipment in conjunction with appropriate departments. Talks with shop managers or contractor to answer questions concerning project design during implementation. Inspects finished project for compliance with specifications and design.

RELATIONSHIPS WITH OTHERS

The Facilities Engineer 1 has regular contact, in person and by telephone, with managers, purchasing agents, contractors, and material controllers to exchange information to ensure timely and accurate project completion and with clients or client representatives as needed during project design and implement to keep them informed on the project's status.

SUPERVISION RECEIVED

The Facilities Engineer 1 works under the guidance and direction of a higher-level engineer or engineering supervisor who reviews each task as it is done to ensure that correct engineering principles are used and that the project design meets standards. Once proficiency is gained, project designs are reviewed and approved before presentation to clients. Engineering manuals, building codes, and administrative policies and

procedures are used to design and implement projects.

GENERAL INFORMATION

The Facilities Engineer 1 must be willing to occasionally bend, stoop, and climb ladders to inspect projects and work sites and to occasionally travel throughout the State.

KNOWLEDGE AND SKILLS (KS)

General knowledge of construction contracts and bidding processes and documents.
 Basic knowledge of engineering principles, theory, and equipment with special reference to the activities of the engineering discipline concerned.
 Basic knowledge of engineering mathematics.
 Basic knowledge of how to use engineering reference manuals and building codes.
 Basic knowledge of building materials.
 Basic knowledge of computer technology (e.g., CADD, PC).

Skill in compiling routine data and statistics and applying simple engineering computations to field data to design simple projects.
 Skill in preparing preliminary and final engineering drawings and specifications.
 Skill in reading and interpreting plans and specifications.
 Skill in preparing clear and concise written reports of technical subject matter.
 Skill in oral and written communication
 Skill in presenting ideas in direct, understandable language to a variety

NOTE: The KNOWLEDGE and SKILLS are required for initial consideration. Some duties performed by positions in this class may require different KS's. No attempt is made to describe every KS required for **all** positions in this class. Additional KS requirements will be explained on the recruiting announcement.

Adopted 1/90

Revised

STATE OF OREGON
 Dept. of Administrative Services
 Human Resource Services Division