

GENERAL DESCRIPTION OF CLASS

The FACILITIES ENGINEER 2 applies engineering principles and methods to independently design a variety of mechanical, electrical, civil, or other specialized engineering projects, insuring that completed projects satisfy client requirements, comply with uniform building and engineering codes, and meet budget limits. Projects generally involve a single facility. The Facilities Engineer 2 may also monitor and collect data for routine projects involving multiple facilities or be responsible for developing, monitoring and implementing maintenance and repair programs for multiple facilities.

DISTINGUISHING FEATURES

This is the second level of a three-level series. Greater independence in applying engineering principles and designing projects requiring a higher degree of specialized knowledge and experience and the less guidance and supervision distinguishes the Facilities Engineer 2 from the lower level.

At the higher level, employees apply advanced methods and procedures to design and develop unusually complex projects or system-wide projects involving multiple facilities and an in-depth knowledge of specialized engineering discipline.

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. Program Administration

Develops, monitors, and implements a maintenance and repair program for facilities (e.g., roof maintenance and replacement program, building structural systems maintenance and replacement program). Maintains records and prepares reports of program status. Prioritize project's repair schedules. Conducts complete engineering studies as requested by supervisor.

2. Project Design

Receives new construction, modification, and alteration project assignments from supervisor. Visits the project site to determine client needs, gather measurements and collect other field data. Analyzes data. Reviews reference materials, manuals, building codes, and vendor specifications.

Applies engineering principles, methods, and mathematical calculations to design projects, specify equipment and materials to be used 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. Submits design package to supervisor for review and approval. Presents design package to client and answers questions concerning project.

3. 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.

4. Miscellaneous

Investigates facility problems reported by users. Analyzes problems, prepares reports and cost estimates and recommends solution. Notifies appropriate personnel to correct problem. Consults with physical plant personnel as requested on design questions or problems involving engineering principles.

RELATIONSHIPS WITH OTHERS

The Facilities Engineer 2 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 2 works under general supervision of a supervisory engineer or administrative supervisor who assigns and reviews the work for compliance with engineering principles and accuracy. Engineering manuals, building codes, and administrative policies and procedures are used to design and implement projects.

GENERAL INFORMATION

The Facilities Engineer 2 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 engineering principles, theory, and equipment with special reference to the activities of the engineering discipline concerned.

General knowledge of engineering mathematics, including statistics.

General knowledge of how to use and apply engineering reference manuals, and building codes.

General knowledge of building materials.

General knowledge of construction costing.

General knowledge of structural, hydraulics, construction, and mechanical engineering practices and methods.

General knowledge of regulatory laws, requirements, and rules.

General knowledge of computer technology (e.g., CADD, PC).

Skill in collecting and compiling field data.

Skill in applying engineering principles to design projects.

Skill in developing engineering studies.

Skill in preparing engineering drawings and specifications.

Skill in reading and interpreting plans, specifications, shop drawings, and product descriptions.

Skill in preparing technical written reports.

Skill in presenting ideas in a direct, understandable language to a variety of personnel.

Skill in obtaining compliance with plans and project specifications.

Skill in performing final project inspections.

Skill in preparing project cost estimates.

Skill in using survey equipment.

Skill in calculating volume, area, load, and stress.

Skill in researching engineering literature.

Skill in evaluating building materials, machinery, and equipment.

Skill in oral and written communication with people of differing technical backgrounds.

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