

BUILDING SYSTEMS ENGINEER I

DESCRIPTION OF WORK

This is professional engineering work in the preparation or review of electrical, mechanical, or structural plans and specifications for major new facilities or the inspection of major new construction or alterations of schools, hospitals, or other public buildings.

Employees prepare plans and specifications for new construction or renovation projects including the design and layout of all mechanical, utility, or electrical systems; review plans submitted by commercial engineering and architectural concerns to determine if they comply with established specifications, building codes, and regulations; or serve as field engineers in the inspection of buildings and other facilities under construction to determine if prescribed specifications and sound engineering practices are being followed. Work is guided by State codes, policies, and regulations, and is performed under the general supervision of a higher-level engineer who reviews work for adherence to engineering principles and practices.

EXAMPLES OF DUTIES PERFORMED

Prepares plans and specifications for new construction and for renovation of existing facilities at State institutions and agencies.

Reviews plans and specifications prepared and submitted by architects and engineers for construction of public facilities to determine compliance with codes, policies, and regulations, and to detect errors; discrepancies, and omissions; confers with higher-level engineers to obtain advice for resolving questionable matters.

Inspects construction projects to determine that work is being done in accordance with plans and specifications, and that proper supervision of the project is being provided by the architect or engineer concerned.

Files and indexes project plans and specifications to be used as reference material for construction of future projects and for making cost estimates.

Contacts architects, engineers, and institutional officials, by correspondence and in person, on matters pertaining to design reviews, project inspection, and contract.

Performs related duties as required.

RECRUITMENT STANDARDS

Knowledges, Skills and Abilities

Considerable knowledge of principles and practices of engineering as applied to the construction and maintenance of facilities.

Considerable knowledge of modern methods and techniques of building construction, materials, and equipment.

Considerable knowledge of building laws, codes, and ordinances.

Working knowledge of general architectural principles, practices, and techniques.

Skill in drawing architectural plans and making technical computations.

Ability to prepare and review plans, specifications, and cost estimates for construction projects.

Ability to establish and maintain effective working relationships with architects, engineers, institutional officials, and others contacted in work operations.

Minimum Education and Experience

Graduation from a four-year college or university with a major in civil, mechanical, or electrical engineering; or an equivalent combination of education and experience.