

## ASSOCIATE ENGINEER (MECHANICAL)

DISTINGUISHING FEATURES OF THE CLASS: Under general supervision, an incumbent directs the preparation of designs and specifications necessary for preparing plans and estimates for mechanical engineering projects and coordinates the operation and maintenance of mechanical systems. An incumbent in this class plans and conducts work requiring the application of extensive knowledge of mechanical engineering principles and practices, making independent judgments about engineering problems and methods in the mechanical field, using advanced techniques and the modification precepts and practices of the field. The Associate Engineer is a unit leader with responsibility for first line supervision, and/or is responsible for division-wide functions. Supervision is exercised over a number of professional, sub-professional engineering and technical employees. Does related work as required.

### EXAMPLES OF WORK: (Illustrative Only)

Directs, coordinates and participates in the preparation of designs, budget estimates and specifications for mechanical engineering projects to ensure that projects meet the needs of the client, following proper engineering standards;

Conducts on-site inspections to assess emergency mechanical failures, develop design solutions and issue short-term contracts or internal work orders;

Supervises professional and non-professional employees in the preparation, planning, and estimating of engineering projects, reviewing and evaluating the work to ensure that it meets needs and adheres to standards;

Directs, coordinates and participates in the preparation of contract plans and specifications for the bidding process and reviews bids to evaluate and make recommendations on the validity of the bid and the qualifications of the bidder;

Participates in establishing priorities for projects and allocates staffing resources according to availability for efficient, effective use of the resources to bring a project to completion;

Evaluates proposed projects to determine whether projects are best completed in house or by consultants, to ensure efficient use of available staff and budget;

Monitors and evaluates energy use at the facilities to insure efficient use of fuel and ensures implemented conservation measures are practiced and to recommend corrective measures when energy wastes are discovered;

Participates in the preparation of the budget for the section;

Reviews and prepares monthly and annual reports of the activities of the section;

Organizes and administers the unit for the most effective use of staff by developing the abilities of the employees while complying with established personnel policies and procedures;

Plans and directs the implementation of a preventive maintenance program for mechanical systems in water and wastewater treatment facilities;

EXAMPLES OF WORK: (Illustrative Only) (Cont'd.)

Supervises the design, modification and repair of mechanical systems, pumps, piping, etc. for more efficient operations;

Prepares service contracts for various mechanical systems in County owned buildings including, heating, air conditioning, and water treatment;

Coordinates the work of the mechanical section with the other sections of the engineering division;

Seals and signs plans, working drawings and specifications as a licensed Professional Engineer as defined in Article 145 of the New York State Education Law;

Troubleshoots all systems in County owned and leased buildings, facilities, and parks;

Uses computer applications or other automated systems such as spreadsheets, word processing, calendar, e-mail and database software in performing work assignments;

May perform other incidental tasks, as needed.

FULL PERFORMANCE KNOWLEDGE, SKILLS, ABILITIES AND ATTRIBUTES:

Thorough knowledge of the principles and practices of mechanical engineering; thorough knowledge of the engineering skills involved in the design, utilization and installation of mechanical equipment; thorough knowledge of construction estimates, including relative cost of materials related to useful life; thorough knowledge of the practices of specification writing; thorough knowledge of the design and analysis of mechanical structures; good knowledge of the legal principles of contract preparation; good knowledge of computer assisted design, CAD; ability to diagnose, analyze and solve mechanical engineering problems; ability to perform complex engineering computations; ability to plan, direct, layout and review the work of others, including professional and subprofessional personnel; ability to work effectively and cooperatively with related agencies, firms, contractors and personnel; ability to read, write, speak, understand, and communicate in English sufficiently to perform the essential duties of the position; ability to use computer applications such as spreadsheets, word processing, e-mail and database software; sound professional judgment; resourcefulness; accuracy; reliability; integrity; physical condition commensurate with the demands of the position.

MINIMUM ACCEPTABLE TRAINING AND EXPERIENCE: A Bachelor's Degree\* in Mechanical Engineering, Civil Engineering, Construction Engineering and four years of experience in mechanical engineering, one year of which must have been in a supervisory capacity.

SPECIAL REQUIREMENTS:

1. Possession of a current license to practice as a Professional Engineer in New York State.
2. Possession of a valid license to operate a motor vehicle in the State of New York will be required at time of appointment and maintain same while in the title.

\*SPECIAL NOTE: Education beyond the secondary level must be from an institution recognized or accredited by the Board of Regents of the New York State Education Department as a post-secondary, degree-granting institution.

NOTE: Unless otherwise noted, only experience gained after attaining the minimum education level indicated in the minimum qualifications will be considered in evaluating experience.

West. Co.  
J. C.: Competitive  
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Job Group: XIV