



City of Phoenix

MECHANICAL PLANS ENGINEER

JOB CODE 23530

Effective Date: Rev. 1/17

DISTINGUISHING FEATURES OF THE CLASS:

The fundamental reason this classification exists is to manage and direct the Mechanical Plans Review Section in the examination of complex plans for new construction, alteration, and repairs for compliance with the City plumbing and mechanical codes. Supervision is exercised over Mechanical Plans Examiners I and II and technical advice and assistance are given to architects, engineers, contractors, and field inspectors on mechanical and plumbing problems. Work includes interpreting plumbing/mechanical plans, solving unusually difficult code interpretation and design problems, and assisting in the development of plumbing/mechanical construction codes. Work is performed under the general direction of a Deputy Planning and Development Director.

ESSENTIAL FUNCTIONS:

- Manages and directs the Mechanical Plans Review Section;
- Supervises and reviews the performance of Mechanical Plans Examiners and initiates training programs according to demonstrated needs;
- Reviews and examines complex plans and specifications for compliance with City codes;
- Performs engineering computations to analyze mechanical and plumbing systems;
- Identifies inadequacies found in mechanical and plumbing construction documents and specifications and requires that corrections be made to meet the requirements of City codes and engineering standards;
- Performs investigations and evaluates tests and other data to determine the suitability of mechanical/plumbing materials and methods of construction or installation;
- Responds to inquiries from plan reviewers, inspectors, architects, engineers, and others regarding mechanical/plumbing code questions;
- Holds conferences with architects, engineers, and inspectors relating to code interpretations and mechanical/plumbing design problems;
- Reviews alternate methods or materials for code compliance within the scope of authority delegated by the Assistant Planning and Development Director who serves as the Building Official;



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- Recommends changes in codes to resolve design and interpretation problems and accommodate and control new materials and new design concepts;
- Makes field inspections at construction sites of large projects at the request of mechanical/plumbing inspectors;
- Produces written letters, memos, and code compliance reports;
- Maintains regular and reliable attendance;
- Demonstrates superior seamless customer service, integrity, and commitment to innovation, efficiency, and fiscally responsible activity;
- Works more than forty hours in a workweek without additional compensation to perform assigned job duties, including weekends, evenings, early morning hours, and holidays as required.

Required Knowledge, Skills and Abilities:

Knowledge of:

- Principles and practices of supervision.
- Leadership styles and skills.
- Mechanical system design pertaining to building construction.
- Uniform Mechanical Code, construction codes, and related laws and ordinances.
- Engineering as applied to the design and installation of plumbing/mechanical systems and equipment in major buildings.
- Standard mechanical/plumbing construction materials and design concepts for major structures and new mechanical/plumbing materials and advanced design concepts.

Ability to:

- Use professional judgment and common sense in the application and enforcement of the intent of code requirements.
- Read and accurately interpret building construction plans and specifications of any complexity.
- Objectively interpret and consistently apply code requirements and related standards in accordance with department policies.
- Make complicated engineering and mathematical calculations and use engineering devices and reference material.
- Perform a broad range of supervisory responsibilities over others.
- Communicate in the English language by phone or in person in a one-to-one or group setting.
- Produce written documents in the English language with clearly organized thoughts using proper sentence construction, punctuation, and grammar.
- Work cooperatively with other City employees and the general public.



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- Use graphic instructions, such as blueprints, schematic drawings, layouts, or other visual aids.
- Comprehend and make inferences from written material.
- Work safely without presenting a direct threat to self or others.

Additional Requirements:

- Must be registered as a Professional Engineer/Mechanical (PE) in the State of Arizona by the end of the twelve-month probationary period.
- Obtaining a combination of discipline specific commercial certifications or licenses may be required for some positions depending on department or section assignment.
- Some positions require the use of personal or City vehicles on City business. Individuals must be physically capable of operating the vehicles safely, possess a valid driver's license and have an acceptable driving record. Use of a personal vehicle for City business will be prohibited if the employee does not have personal insurance coverage.
- Some positions will require the performance of other essential and marginal functions.

ACCEPTABLE EXPERIENCE AND TRAINING:

Three years of experience in the building construction industry relating to mechanical work and mechanical engineering, and a bachelor's degree in mechanical engineering. Other combinations of experience and education that meet the minimum requirements may be substituted.