

FIRE PROTECTION ENGINEER

CODES/PAY RANGE

Class Code: 3930

EEO Code: B

Pay Range: 219

MAJOR FUNCTION

Highly responsible administrative and supervisory position providing professional technical, engineering, and research support to the Fire Services Director and executive staff of all activities of the Fire Services Group.

ILLUSTRATIVE DUTIES

(NOTE: These are intended only as illustrations of the various types of work performed. The omission of specific duties does not exclude them from the position if the work is similar, related, or a logical assignment to the position.)

Coordinates within Fire Services and other county department/groups the development, updating, and enforcement of fire protection and other locally adopted codes.

Participates in the review of construction site plans, fire protection systems plans, and building plans for compliance with fire protection codes and standards. Reviews building plans and inspects new and existing structures to assure conformance to fire protection and other model and locally developed codes and standards adopted by the County.

Reviews, evaluates, and analyzes industrial, commercial, and public buildings and other structures before, during and after construction for fire protection requirements. Provides technical assistance to architects, engineers, contractors, and other private industry personnel.

Evaluates fire resistance of construction, usage, and contents of buildings, availability of water supplies and water delivery.

Makes recommendations for changes in design, materials, or equipment, such as structural components protection, fire protection equipment, alarm systems, and fire extinguishing devices and systems for new and existing structures.

Conducts studies, evaluates new building methods and materials and recommends ways of improving fire protection devices and changing fire codes for both new and existing structures.

Works extensively with other City, State, and Federal agencies and with the private sector in providing input and coordination on various aspects of public protection including the development of State and national fire codes and standards.

FIRE PROTECTION ENGINEER (cont.)

Drafts correspondence to various government and private sector personnel.

Supervises and coordinates Plans Examiners who provide additional plans review support for all codes compliance.

Analyzes fire accident and injury reports to identify the need for changes in safety procedures, codes, etc. Conducts research on materials and systems to evaluate their safety and application to various situations.

Develops Capital Improvement Plans and projects future requirements for personnel and equipment. Develops long and short range plans and manages the code plans review, inspections, and fire safety programs.

Participates in disaster planning and emergency operation planning with other agencies.

Develops performance indicators and standards, and management data reporting and analysis systems for fire services program managers.

Assists in the developing and conducting of fire training and code administration programs.

Provides on-scene technical support to command officers during major fires, hazardous materials, emergency incidents, fire investigations and unusual situations.

Provides technical advice to the Fire Division. Provides expert testimony in court as needed.

Performs related work as required.

KNOWLEDGE, ABILITIES AND SKILLS

Knowledge of building construction, design, and materials as related to fire prevention, fire control, and life safety. Knowledge of fire protection codes, principles, standards, and practices. Knowledge of fixed fire protection systems, fire resistance rating systems, and fire detection, fire alarm and fire suppression systems. Knowledge of fire resistance of construction, usage, and contents of buildings, availability of water supplies and water delivery, and entrance/exit capability. Knowledge of fire behavior and dangerous properties of flammable and hazardous substances. Knowledge of Fire Services organization, operations, and public management. Knowledge of water, sewer, public utility, and mechanical systems. Knowledge of planning and research methodology.

FIRE PROTECTION ENGINEER (cont.)

Ability to read and interpret fire codes, ordinances, building codes, plans, and specifications, and systems descriptions. Ability to plan procedures for fire prevention and fire suppression and to effectively teach these procedures. Ability to work effectively with computers, data systems, and complex equipment. Ability to supervise effectively. Ability to write clear and comprehensive reports, to be able to communicate effectively with individuals and groups, and to establish and maintain effective working relationships. Ability to handle all physical requirements of the class.

MINIMUM QUALIFICATIONS

Possession of a bachelor's degree in Fire Protection Engineering.

ADA REQUIREMENTS

Physical Demands: Medium work. Ability to see, hear, talk, lift (20 lbs.), stand, climb, crouch, walk, crawl, kneel, reach.

Environmental Demands: Both inside and outside work. Potential hazardous work conditions. Ability to tolerate heat, inclement weather (rain, cold, humidity), water, odors, dust, poor ventilation, fumes, toxic fumes.

Mental Demands: Ability to read and comprehend professional, technical and scientific journals, manuals and procedures; safety instructions; maps, mechanical drawings and blueprints; memos, letters, policies, and reports. Ability to perform shop math and general mathematical functions. Ability to write business letters, speeches, summaries and reports. Ability to speak clearly and concisely relating information, data and details to layman; conversant in theory and practices of discipline; public/extemporaneous speaking.

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