Fire Protection Systems Evaluation and Design

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Building and Life Safety Codes utilize sprinkler systems to reduce hazards to life and property. Installation of these systems provides incentives that include reductions in fire-resistance-rated construction, increases in allowable height and area, and greater flexibility in the types of commodities that can be stored in an occupancy.

Typical sprinkler system design services include the following:

Hydrant Flow Test: Test fire hydrant flow and pressure relative to the site to determine the available water supply and compare the test results for adequate required fire flows as prescribed in the fire code and NFPA nationally recognized standards.

Site Surveys and Hazard Assessment: Survey the site conditions to determine the possible hazards. This includes gathering an inventory of the flammable and combustible and other hazardous materials and documenting their storage configuration and existing fire protection features of the building — storage height, rack, palletized, and other pertinent details.

Code Compliance: Research design guides including National Fire Protection Association (NFPA) and Factory Mutual (FM) standards for recommended protection of specific hazards. Apply this data to provide effective and comprehensive protection systems.

Project Specification and Drawings: Produce site specific detailed sprinkler and fire alarm specifications and design drawings. The sealed engineering

documents describe a method of protection for a specific set of hazards. Detailed design documents ensure that bidders understand the system requirements and can accurately provide the scope of work.

Construction Administration: Oversee the project from assistance during contractor selection, the review of design and shop drawings, progress to installation and final inspection, and commissioning testing. PDI reviews sprinkler submittals to ensure that they are code compliant and meet the requirements of our engineered published specification, flag any missing components that may lead to sprinkler permitting or construction delays, and identify components that needlessly increase the cost of the system.

Types of Water-Based Protection

- Fire Sprinkler
- Standpipe
- Fire Pump
- Water Storage Tank
- Foam Suppression
- Water Mist Systems