

## Fire Sprinkler Hydraulic Design Cover Sheet

**Date:** \_\_\_\_\_ **Project Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Contractor:** \_\_\_\_\_ **Designer:** \_\_\_\_\_

**Contact:** \_\_\_\_\_ **Phone:** \_\_\_\_\_

**Fax:** \_\_\_\_\_

**Project Type:**

New    Addition    Tenant Improvement    Other \_\_\_\_\_

**System #** \_\_\_\_\_ **Remote Area #:** \_\_\_\_\_

**Construction:**

Combustible    Non-Combustible  
 Unobstructed    Obstructed (If Obstructed, give reference/type in additional information on pg. 2)

**System Type:**

Antifreeze    Circulating Closed-Loop    Looped    Preaction    Dry Pipe Preaction  
 Dry    Gridded    Deluge  
 Wet

**Hazard:**

Light    Ordinary Grp 1    Ordinary Grp 2    Extra Grp 1    Extra Grp 2  
 Rack    Palletized    Special Design Methods    Solid Piled    Bin Boxes  
 Other (Specify): \_\_\_\_\_

**Figure:** \_\_\_\_\_ **Curve:** \_\_\_\_\_

**Area of Sprinkler Operation:** \_\_\_\_\_ **Density:** \_\_\_\_\_

**Area Per Sprinkler:** \_\_\_\_\_ **Hose Allowance:** **Inside:** \_\_\_\_\_ **Outside:** \_\_\_\_\_

**Rack Sprinkler Allowance:** \_\_\_\_\_ **Sprinkler Make:** \_\_\_\_\_

**Sprinkler Model:** \_\_\_\_\_ **Size:** \_\_\_\_\_ **Type:** \_\_\_\_\_ **K-Factor:** \_\_\_\_\_ **Temp:** \_\_\_\_\_

**Applying NFPA 13: 11.23.2.3 (QR modifier rule apply?)**

No    Yes

**Ceiling Height:** \_\_\_\_\_ ft. \_\_\_\_\_ in. (Provide all design formulas on the plan submitted)

**Roof Slope, in inches:** \_\_\_\_\_ in \_\_\_\_\_.

**Other Design Applications/Modifier's that apply NFPA:** \_\_\_\_\_

**NFPA 13 Calculation Summary:**

Density: \_\_\_\_\_ Area: \_\_\_\_\_ ft/2  
Flowing: \_\_\_\_\_ gpm At: \_\_\_\_\_ psi at Base of Riser  
Reference/Node: \_\_\_\_\_ with: \_\_\_\_\_ Heads Operating "C" Factor Used – Underground: \_\_\_\_\_  
Overhead: \_\_\_\_\_ Elevation of Heads Operating from BOR: \_\_\_\_\_  
Water Supply Info Attached:  Density Curve Attached:

**Head Info:**

Extended Coverage-Dimension \_\_\_\_\_ X \_\_\_\_\_ Flow \_\_\_\_\_ Starting PSI \_\_\_\_\_

**Commodity Storage:**

Commodity: \_\_\_\_\_ Class: \_\_\_\_\_

Location: \_\_\_\_\_

Storage Height: \_\_\_\_\_ Area: \_\_\_\_\_ Aisle Width: \_\_\_\_\_

**Storage Method:**

Solid Piled \_\_\_\_\_ %  Palletized \_\_\_\_\_ %  Rack \_\_\_\_\_ %

**Rack:**

Single Row  Double Row  Multiple Row  Conventional Pallet  Plastic Tote  Open  
 Slave Pallet  Automatic Storage  Solid Shelving  Encapsulated  Non-Encapsulated

**Flu Spacing in inches:**

Longitudinal: \_\_\_\_\_ Transverse: \_\_\_\_\_ Horizontal Barriers Provided:  Yes  No  
Clearance from Top of Storage to Ceiling: \_\_\_\_\_ ft \_\_\_\_\_ in.

**Residential Systems:**

NFPA  13D  13R  13D Modified

Number of Heads Operating: \_\_\_\_\_ Elevation from BOR: \_\_\_\_\_ ft. \_\_\_\_\_ in.

Sprinkler Make: \_\_\_\_\_ Starting PSI: \_\_\_\_\_

**Model:**

Upright  Pendant Recessed  Pendant Concealed  Pendant  Sidewall  
 Other \_\_\_\_\_

Area per sprinkler: \_\_\_\_\_ ft/2 - \_\_\_\_\_ ft. x \_\_\_\_\_ ft. Any Vaulted Ceilings:  Yes  No

Installing Backflow:  Yes  No \_\_\_\_\_ Operating through a Meter:  Yes  No

System Water Supply Flows Provided at/through the Meter:  Yes  No:

Where? \_\_\_\_\_

Size, Pipe Type & C-Factor from Tap to Meter: \_\_\_\_\_

Size, Pipe Type & C-Factor Meter to Sprinkler "take off": \_\_\_\_\_

Contractor Installing Underground:  Yes  No

**Additional Information and Clarifications:** \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Note: Attach additional information and clarification as needed.**