



FIRE DEPARTMENT CONNECTION SIGNAGE GUIDELINE

Design Standards: Signage shall be made from weatherproof metal or rigid plastic and have white letters on a red plate or fitting. Title text must be at least $2\frac{1}{2}$ in. (63.5 mm) in height, and all other text at least 1 in. (25mm) in height. Drawings of signage may be submitted to the Fire Department for approval prior to production and placement.

FDC Signage Wording: Required terminology to appear in this order.

- **Title:** FDC (2½ in.)
- **Building Address:** (example) 760 16th STREET
- **Fire Pump:** FIRE PUMP (*if present*)
- **System Types:**
 - AUTOSPRK.
 - STANDPIPE AND AUTOSPRK.
 - AUTOMATIC WET STANDPIPE
 - AUTOMATIC DRY STANDPIPE
 - MANUAL WET STANDPIPE
 - MANUAL DRY STANDPIPE
- **System Demand @ FDC:** SYSTEM DEMAND @ FDC XXX PSI
- **Maximum Pressure:** MAX PRESSURE XXX PSI
- **Service Area Coverage:** (*examples*) BUILDING C – SOUTH ZONE, ENTIRE COMPLEX, BUILDING A ONLY, BUILDING A & B, SERVES 970 & 950 22ND

Important Notice Regarding System Demand @ FDC:

The AHJ (Authority Having Jurisdiction) acknowledges that NFPA 14 allows for the *omitting* of **standpipe** system demand pressures if the required pressure at the FDC inlet is calculated to be 150 PSI or less, and the AHJ also acknowledges that NFPA 13 allows for the *omitting* of **sprinkler** system demand pressures if the pressure required at the FDC inlet is calculated to be 175 PSI or less.

However, the AHJ is exercising its authority and requires all signage to include the **System Demand @ FDC** pressure.

The **System Demand @ FDC** is the specific pressure (*measured in PSI*) required at the FDC inlet to satisfy the building's *most* demanding hydraulic design point. This value is the sum of the design pressure at the *most remote outlet*, plus friction loss through the piping, plus elevation (*head*) loss due to the height of the building.

Guideline – NVCFD Fire Department Connection Signage

Reason for Requirement: The "@ FDC" suffix is required to provide an actionable target for the pumper operator. It translates the internal engineering requirements of the building into a street-level instruction that accounts for all vertical and frictional losses. By providing this specific value, on the signage. Displaying this specific value on the signage achieves the following:

1. *Eliminates Math:* Firefighters do not have to calculate "head pressure" for the building's height during an emergency.
2. *Prevents Under-Pressurization:* It ensures the "minimum" code requirements are met at the highest floor.
3. *Ensures Safety:* When used in conjunction with the MAX PRESSURE label, it defines a safe operating window that prevents the accidental bursting of pipes from over-pressurization.

See Following Pages for Signage Examples

Standpipe Systems

FDC

BUILDING ADDRESS

**AUTOMATIC WET STANDPIPE
SYSTEM DEMAND @ FDC XXX PSI
MAX PRESSURE XXX PSI
SUPPLIES (AREA SERVED HERE)**

FDC

BUILDING ADDRESS

FIRE PUMP

**AUTOMATIC WET STANDPIPE
SYSTEM DEMAND @ FDC XXX PSI
MAX PRESSURE XXX PSI
SUPPLIES (AREA SERVED HERE)**

FDC

BUILDING ADDRESS

**AUTOMATIC DRY STANDPIPE
SYSTEM DEMAND @ FDC XXX PSI
MAX PRESSURE XXX PSI
SUPPLIES (AREA SERVED HERE)**

Fire Pump – Automatic Dry Standpipe Sign *Exclusion* Rationale

The most critical information for the pumper operator is the *SYSTEM DEMAND @ FDC* pressure. If a high-pressure building pump is present, its action is accounted for by the high required PSI listed; therefore, the system type *Fire Pump Automatic Dry Standpipe* is excluded.



Combined Standpipe Systems

A Combined Standpipe System is one where the piping supplies both the standpipe hose connections, which are used for manual firefighting (*meaning the water stream is physically controlled by a firefighter or trained person*), and the automatic sprinkler system heads.

FDC
BUILDING ADDRESS
STANDPIPE AND AUTOSPRK.
SYSTEM DEMAND @ FDC XXX PSI
MAX PRESSURE XXX PSI
SUPPLIES (AREA SERVED HERE)

FDC
BUILDING ADDRESS
FIRE PUMP
STANDPIPE AND AUTOSPRK.
SYSTEM DEMAND @ FDC XXX PSI
MAX PRESSURE XXX PSI
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