

Fire Department Connection

A fire department connection (FDC) is required for most NFPA 13 and 13R automatic sprinkler systems and standpipe systems. They are not required for automatic sprinkler systems protecting one- and two-family dwellings and townhomes. Fire apparatus can connect supply hoses to the FDC to pump additional water into sprinkler or standpipe systems. The piping arrangement between the FDC and the sprinkler riser depends on the type of automatic sprinkler system. [Ref. 903.3.7]

The location of and the fire hose threads installed on a FDC must be approved by the fire code official. The FDC's placement must not obstruct access to the protected building for other responding apparatus. The connection is located on the street side of buildings, and it must be easily recognized from the fire department vehicle access roadway. (See Figure 9-13) [Ref. 912.2]

To ensure that the sprinkler or standpipe system is supported by fire apparatus, it is important that its location be identified. For existing buildings, the IFC authorizes the code official to require the installation of additional signs to help identify the FDC location. (See Figure 9-14) In many cases, the IFC and IBC only require automatic sprinkler protection for the fire area of an occupancy. In such cases, a sign is required at the FDC to indicate the portion of the building served. In Group R-2 apartment complexes with multiple buildings it is common to have a single FDC supplying multiple buildings, because it is more economical to provide separate water supply connections to serve a limited number of buildings, and in these cases, the buildings served by the FDC should be identified.

[Ref. 912.2.2 and 912.4]



FIGURE 9-13 Fire department connection for a wet-pipe automatic sprinkler system



FIGURE 9-14 FDC identification sign (Courtesy of the City of Phoenix (AZ) Fire Department)