



FIRE SPRINKLER SYSTEMS

These guidelines are to be followed when a business, facility, or organization proposes to install or modify a fire department connection (FDC) serving an automatic fire sprinkler system or standpipe system within the City of Deer Park. These guidelines are not to be interpreted as containing all data required for proper design, installation, or approval.

All fire department connections serving an automatic fire sprinkler and/or standpipe system for the purposes of these guidelines and any other guidelines or requirements of the Fire Department shall conform to the 2012 International Fire Code, as adopted and amended by the City of Deer Park and NFPA 13.

These guidelines do not replace, nor supersede any codes and/or ordinances adopted by the City of Deer Park, or determinations and positions of the Deer Park Fire Marshal's Office.

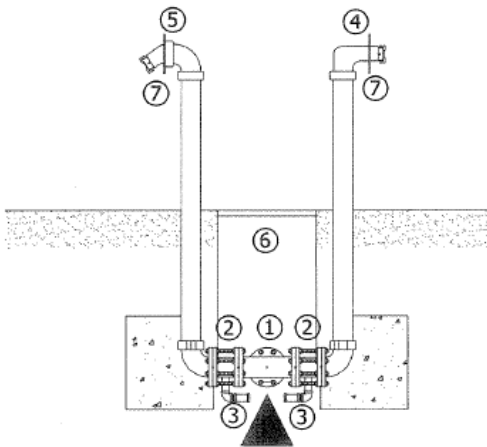
Information needed at time of construction drawings:

1. FDC's for automatic sprinkler systems and/or standpipe systems for new buildings should be equipped with a 5-inch "Storz" connection as well as the 2½-inch Siamese connection.
2. The "Storz" connection should be angled down with a "short bend" or 30° downturn
3. All FDC connections shall be equipped with a locking Knox FDC Cap. Knox products may be ordered online at www.knoxbox.com.
4. There shall be a check valve with ball drip located behind both connections. (See diagram)
5. Check valves shall be accessible for 5-year inspection. If located underground, shall be installed within a meter can/valve box. (See diagram for examples)
6. At least one system control valve shall be mounted outside and visible (wall valve, PIV, OS&Y). **No underground pits or keystone valves are permitted.**
7. FDC shall be facing and visible from the fire lane.
8. An approved, weatherproof, audible/visual device shall be provided on the exterior of the building above the FDC. This device shall be a minimum of 75 candelas and activate on waterflow alarms only.
9. The FDC must be within 100-feet of a fire hydrant and 50-feet of a fire lane.
10. The FDC shall be clear and unobstructed with a minimum of a 5-foot clear all-weather path from fire lane access.
11. FDC installed in a "yard" should have 4-foot x 4-foot x 4-inch concrete pad placed at the base to provide additional stability.
12. The FDC shall be installed no higher than 48-inches above grade.
13. Fire hose threads used shall be national standard hose thread.
14. Underground piping shall be designed and constructed as required for an underground fire main using NFPA 24, *Standard for the Installation of Private Fire Service Mains and Their Appurtenances*, as the installation standard.
15. The FDC shall discharge into the system on the discharge side of the pump if a pump is present.
16. Where the FDC is subject to vehicular damage, the connection shall be protected. Protection components shall not be closer than 36-inches to the connection and shall not interfere with the operation of the connection.
17. The pipe size and arrangement of the Fire Department Connection should conform to the latest edition of NFPA 13, *Standard for the Installation of Sprinkler Systems*.



If there are any other options other than the ones shown on the page, the contractor may submit it to the Fire Marshal's Office for review.

Remote Fire Department Connection (FDC) Details Examples

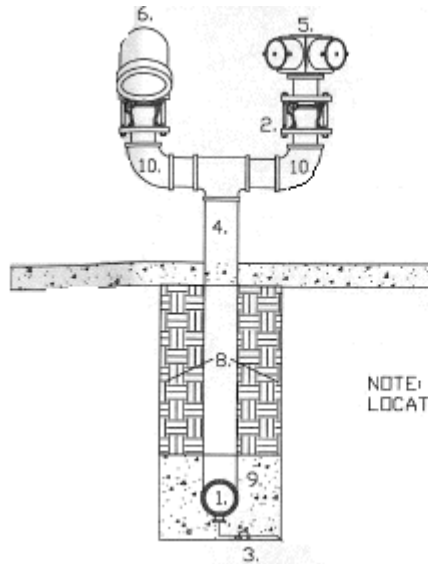


Fire Dept. Conn. Detail

N.T.S.

FDC DETAIL KEY NOTES

- ① 4" FLANGED TEE
- ② 4" WAFER CHECK VALVE WRAPPED IN 10 MIL. POLY
- ③ 1" BALL DRIP COVERED BY #4 CRUSHED STONE
- ④ 4 x 2 1/2 x 2 1/2 YARD FDC
- ⑤ 5 x 4 STORZ FDC w/ 30 DEG. BEND
- ⑥ 28" SERVICE CAN
- ⑦ 4" FDC SIGN "AUTO SPRK"



- 1. FROM RISER ROOM
- 2. 4" CHECK VALVE
- 3. BALL DRIP
- 4. 4" GALVANIZED SCH 40
- 5. 2 1/2" X 2 1/2" X 4" SIAMES FDC
- 6. 5" STORZ FDC WITH 30° ELBOW
- 7. 4'-0" SQUARE CONCRETE PAD 4" THICK
- 8. SEE BEDDING DETAIL FOR BURIAL INFORMATION
- 9. THRUST BLOCK BEYOND
- 10. THREADED GALV. DRAIN 90

NOTE: ADDITIONAL CHECK VALVE TO BE LOCATED IN RISER ROOM



FIRE DEPARTMENT CONNECTION (FDC) SIGN DESIGN REQUIREMENTS

1. Sign shall be constructed from a 15" high by 18" wide metal substrate no thinner than .063.
2. Sign shall have square corners.
3. Background color of the sign shall be "Fire Engine Red" non-reflective.
4. White reflective letters shall be used as set out below.
5. Letter shall be a font comparable to "Folio medium" or "Helvetica medium".
6. Sign shall be permanently attached to a wall directly above fire department connection (FDC) or below freestanding FDC. It shall be 72" from the ground to the bottom of the sign, unless otherwise approved by Fire Marshal.
7. First line (FDC) shall be 6" high letters with 3" between each letter.
8. Second and third lines shall be 2" high with 1/2" spacing between letters.
9. There shall be a 1" margin completely around sign and 1" spacing between lines of text.
10. There shall be 2" spacing between complete words.
11. Second and third line shall have address of building or suite number that system provides for.

EXAMPLE

