



Monroe County Fire Rescue Fire Marshal's Office



Drafting Hydrant – Fire Well – Specifications

Drafting Hydrant(s) – Fire Wells are an alternate method of providing water supply by Monroe County Fire Rescue (MFCR) fire apparatus, which may include engine pumpers, tank trucks, or other department equipment, adding in the extinguishment of fires in areas where the domestic water supply is insufficient or non-existent.

Drafting Hydrant(s) – Fire Wells must be installed in accordance with NFPA 1142: *Standard on Water Supplies for Suburban and Rural Firefighting* and NFPA 1: Fire Code, Chapter 18 Fire Department Access and Water Supply. An application for approval shall include the following requirements and specifications:

1. The contractor shall be properly licensed as a Water Well Contractor as required; Florida Statute 373.323 Licensure of water well contractors; application, qualifications, and examinations; equipment identification.
2. Must obtain a permit from Monroe County Building Department as reviewed and approved by the Fire Marshal's Office.
3. A permit application shall include plans or drawings of the drafting hydrant – fire well which will include,
 - a. Site plan.
 - b. Drafting hydrant – fire well detail, minimum depth, specification of casing materials, grout material, bedding, etc.
4. Designed to provide a minimum of 1,000 gpm flow.
5. Designed that lift is no more than 10-feet. Lift is the distance between the surface level of the water supply with 24-inches minimum or 36-inches maximum above grade level.
6. Location shall be no more than 1,000 linear feet from a public road and no closer than 150-feet from a structure and shall be accessible from a road or drive.

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7. Pipe schedule shall be either American Society for Testing and Material (ASTM) Class 52 Ductile iron or Schedule 80 CPVC with a minimum diameter of 6-inches. Piping shall not be reduced in size until the final transition to the threaded draft connection.
8. All connections shall be properly cleaned with the appropriate sealing material used as specified by the manufacturer, ensuring all joints are airtight.
9. A single draft connection consisting of a threaded male 4 ½ inches in diameter, with National Standard Thread (NST) and provided with a 4 ½-inched National Standard Hose Thread “Steamer Nozzle and Cap”. The cap shall have a ¼-inch welded, galvanized steel chain and 1 ½-inch, 5-sided nut.
10. The draft connection shall be located a minimum of 24-inches or a maximum of 36-inches from grade level to the top of the threaded connection.
11. Hydrant shall be protected by concrete-filled Schedule 40 galvanized steel bollards. Bollards shall be no less than 4-inches in diameter, protecting all exposed piping from potential vehicular damage. Bollards shall be a minimum of 5-feet in length with the bottom 2 1/2 -feet embedded in concrete 30-inches deep and 12-inches in diameter.
12. The draft connect shall terminate not more than 8-feet from the edge of the pavement or stabilized right-of-way. A stabilized right-of-way shall be capable of supporting MCFR fire apparatus with a Gross Vehicle Weight (GVW) of 68,000 pounds.
13. For drafting hydrants – fire wells on private property, the property owner / representative must submit a notarized copy of the “*Monroe Access to Water Supply*” form at the time of permit application.

Fire Well Acceptance Test Requirements

The following are requirements for the determining the acceptance of the fire wells.

1. Permit and plans are on site and available for review by Deputy Fire Marshal(s).
2. All sediment shall be flushed and expelled from the well with air pressure or an alternate method approved by Monroe County Fire Marshal.

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3. Checks for water clarity and sediment from the discharge outlet shall be conducted throughout the duration of the test. Samples shall be “clear” with no visible sediment.
4. The flow test needs to demonstrate the capability of the suction water supply to provide a minimum of 750 gpm at the outlet for 20 minutes.
 - a. Acceptable measurement techniques are,
 - i. Flow through a known size orifice with a pitot gauge reading.
 - ii. Pump to a tank of a known volume (i.e., water tender). Measure the time and back calculate the amount of volume filled in one minute.
 - iii. Pump through calibrated flow meter.
 - b. The fire well will be at “rest” for 20 minutes, to ensure adequate restoration “refill” of water level with no sediment.
5. The flow test will resume, demonstrating the capability of the suction water supply to provide a minimum of 750 gpm at the outlet for 20 minutes.
 - a. Acceptable measurement techniques are,
 - i. Flow through a known size orifice with a pitot gauge reading.
 - ii. Pump to a tank of a known volume (i.e., water tender / buffalo).
 - iii. Pump through calibrated flow meter.
6. The GPS coordinates with latitude and longitude will be recorded on the test documentation.
7. All documentation will be submitted to the Monroe County Building Department for inclusion with the permit file. This will fulfill requirements of 892 – Final Fire w/o Acceptance Test.
8. Test documentation will be submitted to the Monroe County Fire Marshal’s Office for inclusion with the property’s Life and Safety Fire Protection inspection file.



I _____ owner and / or representative of the property for the
(Name)

water supply point located, _____
(Address)

hereby authorize Monroe County Fire Rescue to access aforementioned property for the purpose of access to the water supply point and for the use during any and all emergencies, as deemed by the Monroe County Fire Rescue.

Signature

STATE OF FLORIDA

COUNTY OF _____

The foregoing instrument was acknowledged before me by means of ___ physical presence or ___

online notarization this _____ day of _____, 20_____, by

_____, who after being duly sworn and deposed, upon oath, executed the foregoing agreement and acknowledge the contents thereof to be true and to be used for the purposes therein mentioned.

Individual(s) identified by:

_____ Personal Knowledge _____ Satisfactory Evidence: Type _____

Notary Public Signature

MY COMMISSION

EXPIRES: _____

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