

FLORIDA STATE COLLEGE AT JACKSONVILLE

FIRE HYDRANTS STANDARDS

Edition 1

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FIRE HYDRANTS

PART 1 - GENERAL:

Fire hydrants shall be 5 1/4 inch ductile iron body, dry-barrel, fully bronze mounted, for minimum 150 psi working pressure, complying with ANSI/AWWA Standard C502, Standards for Dry-Barrel Fire Hydrants (latest edition), Associates Factory Mutual Fire Insurance Companies and listed with Underwriters Laboratories. The inlet connection shall be 6-inch mechanical joint type. All nut and bolts shall be 304 Stainless Steel. The integral shut-off valve shall be compression type opening against water pressure and open left (counter-clockwise) as marked on the bonnet. The main valve seat and the threaded portion of the hydrant into which it screws shall be bronze or stainless steel. The hydrant barrel drain valve and port shall be bronze. The hydrant barrel drain shall be actuated by operation of the main valve stem. The stem operating threads and thrust bearing shall be sealed, by "O" rings, from exposure to moisture and shall be provided with means for lubrication. The hose nozzles shall be bronze with National Standard fire hose coupling screw threads, one 4½ inch pumper nozzle and two 2½ inch hose nozzles. The hydrant operating nut and nozzle cap nuts shall be pentagon shaped (5-sided) measuring 1½ inches from point to flat. The nozzle caps shall be securely chained to the hydrant barrel and be constructed of heavy duty corrosion-resistant material. The hydrants shall be "Traffic" type with a frangible flange or lugs and operating stem section at the ground level. The outside surface of the upper barrel (top) of the hydrant and all above ground piping shall be primed and then painted with "Glossy Fire Hydrant Red" color (Rust-Oleum #1210 or equal). The base (shoe) shall be painted with a minimum 4 mils thick epoxy (inside and outside surfaces). The lower barrel (inside and outside surfaces) and the inside surface of the upper barrel shall be asphaltic or epoxy coated.

Recommended Manufacturers:

1. Mueller Company
2. American-Darling Valve

PART 2 - CONCRETE PAD:

A concrete pad shall be installed around all fire hydrants that are not located in paved area. The concrete pad shall consist of the following:

1. Concrete rated at 4,000 psi (minimum). Fiber mesh re-enforcement is optional. Concrete shall be smooth and in one piece, with no cracks.
2. Concrete thickness shall be a minimum of 4 inches.
3. The dimensions shall be a minimum of 4 foot by 4 foot.
4. The concrete pad must be placed on firm compacted sand.

PART 3 - RAISED PAVEMENT MARKERS:

The blue reflective markers shall consist of a molded methyl methacrylate or an acrylonitrile butadiene-styrene (ABS) shell filled with a mixture of an inner thermostating compound and filler material.

The marker shall have a maximum width of five (5) inches and a maximum height of 0.75 inch. The minimum area of each reflective face shall be 1.5 square inches. The outer surface shall be smooth and all corners and edges exposed to traffic shall be rounded. The base shall be substantially free of glass or substances that may reduce their bond to adhesive.

The marker shall support a minimum load of 2,000 pounds when tested in accordance with a manufacturer developed test approved by the Florida Department of Transportation.

Bituminous adhesive as recommended by the marker manufacturer shall be used for bonding the markers to the pavement. The adhesive used shall be one of the products included on the Florida Department of Transportation (F.D.O.T.) Qualified Products List. Reflective markers shall be installed in such a manner that the reflective face of the marker is perpendicular to a line parallel to the roadway centerline. The blue reflective markers shall be placed in the center of the travel lane, directly across from and adjacent to each fire hydrant.

PART 4 – INSTALLATION:

Installation shall be in compliance with the manufacturer's requirements, Florida Fire Prevention Code and applicable NFPA standards adopted by Florida Administrative Codes.

PART 5 – TESTING:

The installing contractor shall be required to pre-test all components of the fire hydrant, and provide the results of that test, prior to requesting final acceptance test. For the final acceptance test, the contractor shall conduct a full test as per the Florida Fire Prevention Code, and applicable NFPA standards adopted by Florida Administrative Codes.

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