Section 15106 - FIRE HYDRANTS

1. SCOPE. This section covers fire hydrants. Refer to Standard Details for additional information.

2. GENERAL.

2.01. General Equipment Stipulations. The General Equipment Stipulations shall apply to all equipment furnished under this section.

2.02. Valves. Valves used in hydrant assemblies shall conform to the requirements of WSACC Standard Specification, Section 15104 - RESILIENT-SEATED GATE VALVES

3. FIRE HYDRANTS. Fire hydrants shall conform to ANSI/AWWA C502. All fire hydrants shall be constructed with a bronze main valve seat which screws into a threaded bronze connection at the base of the hydrant.

The fire hydrant shall include the following:

Affidavit of compliance	Not required.
Catalog and maintenance data	Required.
Type of shutoff	Compression or gate.
Size of hydrant (valve opening)	5-1/4 inches
Inlet connection	6 inch mechanical joint.
Harnessing lugs	Not required.
Depth of bury	As required.
Outlet nozzles	Two (2) - 2-1/2 inch hose, and one (1) – 4-1/2 inch pumper.
Outlet nozzle threads	National Standard thread.
Direction to open	Counterclockwise.
Stem seals	O-ring.
Outlet nozzle cap chains	Required.
Drain outlet	Required.
Operating nut	1-1/2 inch pentagon.
Outlet nozzle cap nut	1-1/2 inch pentagon.
Extensions	Mfr. recommendation.

Hydrants shall be set so that at least the minimum pipe cover of 3 feet 0 inches is provided for the branch supply line and the nozzles are at least 12 inches above finished grade. Each hydrant shall be set on a concrete foundation.

Concrete blocking of hydrants shall not be permitted. All newly installed hydrants shall be restrained to the guard valve and the guard valve restrained to the main line tee using Romac Grip-Rings or Mega-lug MJ Restraint System. If rods are used in conjunction with restrainant, the rods shall be plain or continuous threaded, and shall be rated 50,000 psi tensile strength. Tie bolts shall be rated 22,000 psi per bolt. Bolts shall meet the requirements of ASTM A325, type 3D, tensile strength 60,000 psi minimum. All appurtenances shall be coated with coal tar to prevent rust.

The hydrant shall be of the dry-barrel type and shall have at least 2 bronze positive acting drain valves that shall drain the hydrant as soon as the main valve is closed. Spring operation of the drain valve will not be acceptable. Hydrant drainage shall be provided by installing at least 7 cubic feet of gravel or crushed stone around the hydrant and below the top of the hydrant supply pipe.

All hydrants shall stand plumb. Hydrants with pumper nozzles shall have hose nozzles parallel with, and the pumper nozzle perpendicular to, the curb line. All hydrants shall be oriented so that the pumper nozzle faces the curb. For all field painting, all surfaces shall be sandblasted and properly prepared according to the paint manufacturer's recommendation prior to painting.

All fire hydrants and any portions of the hydrant assembly exposed to view (above adjacent ground elevation) shall be painted with two (2) or more evenly applied coats of hydrant enamel paint. The color shall be selected by the Owner. Hydrants will be retouched / repainted as necessary after installation and prior to acceptance.

Fire hydrant tees shall be Griffin "Swivel Hydrant Tee", Tyler "5-125 Swivel Hydrant Tee", or approved equal. Piping extensions for hydrant installations shall be made with 6-inch ductile iron nipples with approved method of restraining. All extensions shall be included in the unit cost of the hydrant.

All fire hydrants shall be one of the following:

Manufacturer	Model
Mueller Company	Super Centurion 200
American Flow Control	B-84-B
Clow	Medallion

Immediately before installation of a hydrant, the following operations shall be performed: (a) the hydrant shall be thoroughly inspected; (b) the hydrant interior shall be thoroughly cleaned; and (c) the hydrant shall be opened and closed as many times as may be necessary to determine if all parts are in proper working order, with valves seating properly and the drain valve operating freely.

6. DRAWINGS AND DATA. Complete specifications, data, and catalog cuts or drawings covering the items furnished under this section shall be submitted in accordance with the submittals section.

Drawings and data submitted shall include complete connection and schematic wiring diagrams for electric actuators and controls.

End of Section