

SECTION 02645
FIRE HYDRANT ASSEMBLIES

PART 1 -- GENERAL

1.1 SECTION DESCRIPTION

- A. This section includes materials, installation standards and Contractor responsibilities associated with the furnishing of all labor, materials, equipment and incidentals required to properly perform fire hydrant assembly installation as shown on the Drawings and as specified herein.

1.2 SUBMITTALS

- A. Submit shop drawings of all equipment and appurtenances required for complete fire hydrant assembly installation.

PART 2 -- PRODUCTS

2.1 FIRE HYDRANTS

- A. Fire hydrant assemblies shall include fire hydrant, spool pieces, gate valve, valve box, concrete pad around valve box, tee at the main, necessary bends and fittings, restraining devices, and bedding material.
- B. Fire hydrants shall conform to AWWA C-502 and shall be of the compression, traffic model, self-draining type. Hydrants shall be designed for 150 psi working pressure. The hydrant shall be equipped with two 2-1/2 inch type nozzles and one 4-1/2 inch pump nozzle. Threads shall be National Standard ANSI B26. The 2-1/2 inch nozzle shall have 7 1/2 threads per inch and 3 1/16 inch outside diameter male thread. The 4-1/2 inch nozzle shall have four threads per inch outside diameter male thread. The hydrant, as a minimum, shall have a sealed grease chamber and plug or fitting for the introduction of grease. Hydrants shall be furnished with a breakaway feature that will break cleanly upon impact. This shall consist of a two-part breakable safety flange with a breakable stem coupling. The hydrant internal valve shall be 5-1/4 inch minimum. The pentagonal operating nuts and the cap nuts shall be 1-1/2 inch point to flat. The hydrants shall open counter clockwise and the direction of opening shall be cast on the top. Ground flange shall be located approximately 6 inches above finished grade. Ground flange shall be located 4 inches above finished grade. The hydrant shall be equipped with a 6-inch mechanical joint base inlet. Nozzle caps with gaskets shall be provided for all outlets and shall be chained to the barrel. Cap nuts shall have same dimension of operating nut of hydrant.
- C. All hydrants shall be of the size and type specified and as far as possible all hydrants shall be from one manufacturer.
- D. Hydrant extensions shall not be used unless specifically approved by SLCU or the Engineer.
- E. Drain holes shall be deleted or plugged with appropriate brass set screws.

PART 3 -- EXECUTION

3.1 FIRE HYDRANT ASSEMBLY INSTALLATION

- A. Hydrants shall be located in a manner to provide complete accessibility and that possibility of damage from vehicle, or injury to pedestrians will be minimized. Connect hydrant to main with a 6-inch ductile iron branch controlled by an independent 6-inch gate valve. All pipe, valve and points from the hydrant to the main shall be restrained. Hydrants shall stand plumb and true and shall have their nozzles parallel with or at right angles to the curb or edge of pavement, with the pumper nozzle facing the curb or edge of pavement. Hydrants shall be set to the established grade, with nozzles at least 18 inches above the ground.

- B. All fire hydrants shall be free of corrosion and all working parts shall be properly lubricated and hydrants painted as required by SLCU.

**** END OF SECTION ****