

ITEMIZED SPECIFICATION NUMBER THREE

HYDRANT ASSEMBLY

3.1 **SCOPE** - This item shall include the furnishing and installation of all fire hydrants with auxiliary valves and valve boxes and the required anchoring pipe and fittings as herein specified and as shown on the Drawings.

3.2 **FIRE HYDRANTS** - Fire hydrants shall be of the compression type, opening against and closing with the water pressure in the main, having a 5-1/4 inch valve opening, two 2-1/2 inch hose nozzles and one 4-1/2 inch pumper nozzle. Hydrants shall conform to AWWA C502, latest revision. The manufacturer shall furnish an affidavit indicating that all tests and provisions of AWWA C502 have been met.

Hydrants shall be suitable for setting in trenches of the depths shown or required. Hydrants shall be furnished with a positive-operating drain valve and shall be installed with the drain valve open. Each hydrant shall be furnished with a 6-inch mechanical joint base. Hydrants shall open by turning to the left (counterclockwise).

Fire hydrants shall be American Flow Control Model B-62-B as manufactured by American Flow Control; or Mueller Centurion A-423 as manufactured by Mueller Company.

The CONTRACTOR shall verify that pumper nozzle, operating nut, outlet nozzle and cap nuts size and hose threads conform to those on existing Bowling Green hydrants before new hydrants are shipped.

Each hydrant shall be given two coats of good weatherproofing paint before leaving the factory and another after installation. The portion of hydrants below ground shall be painted with black paint and the portion above ground shall be painted to match the existing hydrants throughout the City of Bowling Green. The color of the field coating shall be industrial enamel OSHA yellow No. B54Y17-617-0807.

3.3 **AUXILIARY VALVES AND VALVE BOXES** - Furnish and install a 6-inch auxiliary (gate) valve and valve box with each hydrant. Valve and valve boxes shall be as previously specified in ITEMIZED SPECIFICATION NUMBER TWO except the valve shall have mechanical joint ends for receiving the spigot end of 6-inch mechanical joint anchoring pipe.

3.4 **ANCHORING PIPE AND FITTINGS** - Each hydrant connection to the mains shall be made by securing the hydrant and auxiliary watch valve to the tees with anchoring pipe and/or anchoring couplings as shown or required. All anchoring pipe and fittings shall be cast as one piece and shall be of the plain end mechanical joint type incorporating an integral follower gland and shall be as manufactured by Clow Corporation, American Flow Control, United States Pipe and Foundry Company, or equal.

3.5 **OFFSET ANCHOR PIPE & FITTINGS** - Each hydrant shall be connected to the auxiliary valve using a Gradelok-Offset Anchor Pipe as manufactured by Assured Flow Sales, Inc., P.O. Box 49633, Sarasota FL 34230-6633. The anchor pipe shall be furnished with lipless split flanges.

3.6 **CATHODIC PROTECTION** – Sacrificial Anodes shall be provided in accordance with Itemized Specification Number One, Water Mains.

3.7 **STORZ FITTING** - Upper barrel to have one (1) five inch (5-in) Storz fitting by Harrington, Inc installed on the hydrant pumper nozzle. The Storz fitting shall be compatible with five inch (5-in) Storz coupled fire hoses. The Storz fitting shall be constructed of aircraft quality aluminum with brass connection, brass sealing face and uninterrupted brass waterway. The aluminum to be hard coat anodized in accordance with SAE-AMS-A-8625f, Type 3, dark gray, for corrosion protection. The Storz fitting shall be an integral part of the fire hydrant assembly, resistant to tampering or removal by unauthorized personnel. Add-on Storz compatible adapters are not acceptable

3.8 **INSTALLATION** - Hydrants shall be set plumb and to the grade of the curb, street, alley, highway or right-of-way as approved by the ENGINEER. Pumper nozzle shall always be set toward the center line of the street, highway or right-of-way. Excavation for hydrants shall first be backfilled with No. 67 Stone to a minimum depth of two feet. Remainder of excavation shall then be backfilled as specified for the trenches.

The hydrant base and auxiliary valve shall rest on a solid concrete block approximately 8-inches x 8-inches x 16 inches.

3.9 **EXISTING HYDRANTS** - All existing hydrants removed as a part of the project shall become the property of the OWNER. The Owner will provide transportation off site of all hydrants removed as part of the project.

3.10 **MINOR DETAILS** - Minor details not specifically mentioned in these Specifications nor shown on the Drawings, but necessary to secure a workmanlike job and proper operation, shall be provided by the CONTRACTOR without extra cost.

3.11 **SUBMITTALS** – The Contractor shall submit Shop Drawings for all materials to be provided under this bid item for review by the Engineer.

3.12 **PRICE BID** - The price bid for Fire Hydrants shall include the furnishing and installation of the fire hydrants, watch valves and valve boxes and anchoring pipe and fittings in accordance with the foregoing specifications and accompanying drawings and shall be the price for each, installed complete.

<u>ITEM</u>	<u>ODOT NO.</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
3a	638	Hydrant Assembly, Type A	EA