

CITY OF OWOSSO  
SPECIAL PROVISION  
FOR  
**WATER MAIN INSTALLATION**

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Fittings/Joints

Joints shall be push-on type with elastomeric gaskets meeting the requirements of ASTM D3139/F477 or AWWA C111 and shall be provided with an electrical conductivity device.

Fittings shall be cast iron or ductile iron with mechanical joints and shall be in accordance with AWWA A21.10/C110. Fittings shall be cement lined in accordance with ANSI/AWWA A21.4/C104 and rated for 250 psi, or more.

Following manufacturer's standards, mechanical joint restraint shall be required and shall be MEGALUG by EBAA Iron, or approved equal.

Corrosion protective material shall be required and shall be Sanchem, Inc. NO-OXG-ID GG-2, Corotech coal tar epoxy 10 mil dmt, or equal.

**Ductile iron water main shall require the use of nitrile gaskets.**

Fire Hydrants

This item shall include the fire hydrant, an auxiliary valve (placed 3 feet from hydrant), valve box, connector pieces and the hydrant tee. These items shall be installed in accordance with the standard construction practices and the standard fire hydrant detail. Bends approved by Engineer and Department of Public Works may be added into the connection, but shall not be paid for separately. Extensions will also not be paid for separately.

All fire hydrants shall be EJIW and manufactured in accordance with AWWA C502 specifications. Hydrants shall be provided as outlined in the details within the construction plans and below:

1. Dry-barrel fire hydrant traffic model or traffic flange type and 150 pound working pressure, compression type, and opening with the line pressure, with mechanical joints.
2. Fire hydrants shall be bronze mounted throughout with no iron-to-iron or steel contacts or threads. The operating stem in the base and valve seat shall be bronze.
3. All iron parts shall be of high strength grey iron conforming ASTM A126 Class B.
4. Fire hydrants shall have a 6-inch valve opening with a 6-inch mechanical joint inlet.
5. The minimum inside dimension shall be 8 inches.
6. The operating nut shall turn to the right to open and have a weather shield. The opening direction shall be plainly marked with an arrow near the operating nut showing the opening direction.
7. The operating nuts and nut nozzle caps shall be square and slightly tapered; and it shall be  $1\frac{5}{16}$ " at its base and  $1\frac{3}{16}$ " square at its end and  $1\frac{1}{8}$ " long.

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8. Fire hydrants shall be completely assembled at the factory with the drain opening sealed with a threaded plug.
9. Provide two fire hose connections and one pumper connection in accordance with municipality standards.
10. All nozzles shall be on a movable head on the hydrant barrel so that they may be rotated by changing the position of the top flange without removing the barrel.
11. Provide a Spring Cap Style McGard Fire Hydrant Lock for hydrant.
12. Provide proper length for installation in a water main depth as indicated on the drawings.
13. All fire hydrants shall have a concrete collar around the lower barrel, 12" below the ground line with 1" of expansion joint material between the hydrant barrel and collar, as directed by the Engineer. The collar shall be 6 inches thick with a diameter of at least 24 inches. Diameter will be as wide as necessary to reach undisturbed earth. Fire hydrants shall be tested to 300 pounds hydrostatic pressure from inlet side with valve in both open and closed position.
14. Fire hydrants shall be painted red above the grade line conforming to the municipality standards and black below the grade line.
15. Fire hydrants shall be designed so one man can easily remove or replace the working parts without removing the main valve seat.
16. Fire hydrants shall be flagged per municipality specifications.

Gate Valves & Boxes

Gate valves shall be manufactured by EJIW. All valves for use in water distribution systems shall be resilient seat, single wedge valves. The valves shall be in accordance with AWWA Specification C509 and shall also meet any supplemental requirements or specifications of the municipality. Valves used on this project shall have mechanical joints. The valves shall be manually operated with non-rising stems, iron body, bronze trim, and be furnished with a standard AWWA 2 inch square-operating nut. The wrench nut shall turn right (clockwise) to open and shall be indicated by an arrow cast on the operating nut skirt. Valve stem risers are required for depths greater than 6'-6" and will not be paid for separately.

Valve boxes shall be manufactured by EJIW. The valve box shall be cast iron, 5-1/2 inch diameter, and three-piece adjustable screw type. Valve box extensions are required for depths greater than 6'-6" and will not be paid for separately. No. 6 round bases are required for gate valves up 8" in diameter and No. 160 oval bases for gate valves 10" and greater. The drop covers shall be stamped "water".