

NATURAL RESOURCES CONSERVATION SERVICE
MISSOURI CONSTRUCTION SPECIFICATION
DRY HYDRANT
CODE 432

GENERAL

Construction operations shall be carried out in a manner and sequence that erosion and air and water pollution are minimized and held within legal limits.

The completed job shall present a workmanlike appearance and shall conform to the line, grades, and elevations shown on the drawings or as staked in the field.

All operations shall be carried out in a safe and skillful manner. Safety and health regulations shall be observed and appropriate safety measures used. At no time shall anyone be allowed into or close to the open trench. The contractor shall be assured that all state laws concerning buried utilities are met prior to beginning work.

MATERIALS

Materials and fabrication shall be as specified on Missouri Standard Drawing 29-N-403 or equivalent. Plastic pipe 6 inches in diameter meeting ASTM specifications D1785, D2241, or AWWA specification C900 will be used. Pipe shall be equivalent in strength to Schedule 40 or heavier. The ASTM or AWWA designation shall be stamped on the pipe. Joints shall be made in a manner as recommended by the manufacturer to provide a watertight connection.

Steel pipe conforming to ASTM A53 standard weight may also be used. The joints shall be welded and strapped to provide a watertight connection. Elbows and fittings shall be compatible to the pipe.

PLACEMENT

Dry hydrants should be placed on suitable subgrade material. The area surrounding the hydrant shall be graded to permit free drainage of surface water.

Placement of the hydrant shall be as shown on the drawings or as staked. The pipe shall be free of dirt and other materials before assembling.

Hydrants shall be placed so that they are protected against hazards imposed by traffic, farm operations, freezing temperatures, or soil cracking. Minimum depth of burial shall be as shown on the drawings. The hydrant should be buried below frost line or otherwise protected from freezing.

Trenches for plastic pipelines shall be free of rocks and other sharp edged materials, and pipe shall be carefully placed to prevent damage.

All PVC pipe connections, designed to be glued, will have cleaner and PVC solvent cement used in accordance with manufacturer's recommendations. Allow glue to cure thoroughly prior to moving pipe assembly. **Gluing shall not be done at temperatures below freezing.**

BACKFILLING

All backfilling shall be completed before the hydrant is placed in service. The initial backfill shall be of selected material that is free from rocks or other sharp edged material that can damage the pipe. Backfill shall be mounded above ground line to allow for settlement.

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact the Natural Resource Conservation Service or download the standard from the electronic Field Office Technical Guide for Missouri.

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VEGETATION

Topsoil shall be added, if needed, to establish vegetation. Refer to JS-AGRON-25 or equivalent for seeding and mulching recommendations.

Additional Details: _____

NATURAL RESOURCES CONSERVATION SERVICE
MISSOURI OPERATION AND MAINTENANCE
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OPERATION AND MAINTENANCE

The operation and maintenance plan for the system is the responsibility of the local fire department and the landowner. The dry hydrant should be checked at least one time each year. Some of the items that need to be addressed are:

1. Check access road to ensure it is in usable condition. Repair road as needed.
2. Mow the dry hydrant access area to keep the area readily available for use. Any brush that is in the way shall be removed.
3. Check for vandalism and normal wear and deterioration. Repair any damage that would prevent the system from working. Paint exposed parts of the hydrant as needed.
4. Inspect the site for any item that would affect safety.

TESTING

Pumper testing of the dry hydrant shall be done at least annually to verify site usability. This test shall include back flushing, followed by a pumper test at the maximum designed flow rate. Careful attention should be given to silt, debris, aquatic growth, or other interference that may limit the full operation of the dry hydrant.

In-water checks of the intake screen should be made every five years or sooner to identify sediment build up, aquatic growth, or other obstructions. The hydrant should be back flushed each year to remove any silt or debris that may have accumulated on the screen.

Additional Details: _____

