

Multiple Barrels Rule – When is a Culvert not a Bridge?



When multiple pipes convey the flow, if the gap between the pipes is LESS than half the interior diameter of the smallest pipe AND the pipes together are greater than 10 foot span (measured along the road centerline) it is a MnDOT bridge.

For example, two 72-inch culverts with a 5-foot gap between would be individual culverts and not a collective bridge, so they should be inspected in Hydlnfra.

Another example: two 72" culverts with a 3-foot gap between them IS a MnDOT bridge (though not a federal bridge).

If the culvert has a bridge number call it a bridge. MnDOT bridges include culverts 10 foot span or greater, and almost always have a bridge number. Federal bridges are 20 foot span or greater.

The definition of a culvert that is a bridge is defined by Minnesota state law, and defined in the federal "bridge coding guide"

<http://www.fhwa.dot.gov/BRIDGE/mtguide.pdf> -- on page 73)



U.S. Department of Transportation
Federal Highway Administration

Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges

Report No. FHWA-PD-96-001

Item 112 - NBIS Bridge Length

1 digit

Does this structure meet or exceed the minimum length specified to be designated as a bridge for National Bridge Inspection Standards purposes? The following definition of a bridge is to be used:

A structure including supports erected over a depression or an obstruction, such as water, highway, or railway, and having a track or passageway for carrying traffic or other moving loads, and having an opening measured along the center of the roadway of more than 20 feet* between undercopings of abutments or spring lines of arches, or extreme ends of openings for multiple boxes; it may also include multiple pipes, where the clear distance between openings is less than half of the smaller contiguous opening.

* (6.1 meters).

