

MISSISSIPPI BRIDGE FACTS (7/21/2008)

Mississippi is home to more than 16,500 bridges. About 34 percent (5,652) of them are owned and maintained by the Mississippi Department of Transportation (MDOT) on US, State and Interstate highways. There are roughly 66 percent (10,923) owned by counties and municipalities on county and local roads.

MDOT is responsible for making sure all the bridges on the state maintained highway system are inspected following state and federal mandates.

All bridges also are analyzed for their capacity to carry vehicular loads. Bridges that cannot safely carry heavy vehicles, such as some tractor trailers, are posted with weight limits. Currently about 4 percent (217) of the bridges are posted with weight limits on the state maintained highway system. Roughly 27 percent (2,903) of the bridges which are owned and maintained by the counties and municipalities are posted with weight limits. Based upon inspection and load capacity analysis, any bridge deemed unsafe gets closed.

There is an established procedure for responding to inspection findings by increasing the inspection frequency, if appropriate, or reporting conditions requiring maintenance or additional review.

MDOT also has a permitting program for vehicles carrying extra large or heavy loads. Staff evaluates the ability of highways and bridges to accommodate those loads and issues vehicle permits and selects travel routes for those vehicles based upon those detailed evaluations.

All states are required to utilize federal rating scales, which are the basis for annual, state-by-state comparisons of bridge conditions. The federal ratings are used to identify bridges that do not meet contemporary Federal Highway Administration (FHWA) standards. Those bridges are classified as either "structurally deficient" or "functionally obsolete."

Bridges are considered "structurally deficient," according to FHWA, if significant load carrying elements are found to be in poor or worse condition due to deterioration and/or damage, the bridge has inadequate load capacity, or repeated bridge flooding causes traffic delays. The fact that a bridge is "structurally deficient" does not imply that it is unsafe or likely to collapse.

A "structurally deficient" bridge, when left open to traffic, typically requires significant maintenance and repair to remain in service and eventual rehabilitation or replacement to address deficiencies. In order to remain in service, structurally deficient bridges are often posted with weight limits.

“Functionally obsolete” refers to a bridge’s inability to meet current standards for managing the volume of traffic it carries, not its structural integrity. For example, a bridge may be functionally obsolete if it has narrow lanes, no shoulders, or low clearances.

About 17 percent (2,830) of all bridges in Mississippi are classified, under the broad federal standards, as structurally deficient and about 8 percent (1,274) are classified as functionally obsolete. Those classifications do not mean the bridges are unsafe, rather that they would require repairs or modifications to restore their condition or improve their functionality. Again, if a bridge is deemed unsafe, it is closed to traffic. These statistics help highlight bridges that should be considered for further review, maintenance, repair, rehabilitation or replacement.

Bridge condition information is used to establish preventative and corrective maintenance programs, as well as bridge rehabilitation and replacement programs. It also is used to help measure program performance. Federal deficiency lists are used to determine federal bridge funding eligibility for capital improvements. Decisions on specific bridge improvements are made after detailed evaluations of inspection reports and other information, such as traffic volumes and loads.