

OFF-SYSTEM TRUSS BRIDGES

REPAIR SUGGESTIONS FOR LONG-TERM PRESERVATION

• AFTER FLOODING •

PROBLEM	SUGGESTIONS		EXAMPLE IMAGES
	DO:	DO NOT:	
Severe erosion around the substructure elements.	Add riprap to embankment for stabilization and erosion correction. Notify TxDOT Area Engineer, TxDOT District Bridge Engineer, or structural engineer consultant for erosion that has extended below the existing at-grade line.	Build berms on the upstream side of the bridge as it traps debris and in the event of future flooding it may erode or may further damage the bridge. Backfill to compensate for erosion that has extended below the existing at-grade line. Backfill is susceptible to collapse and further erosion when saturated.	EROSION AT BRIDGE ABUTMENT
Instability of substructure members due to scour/ erosion.	Notify TxDOT Area Engineer, TxDOT District Bridge Engineer, or structural engineer consultant to determine if the bridge should be closed.	Backfill to compensate for erosion that has extended below the existing at-grade line. Backfill is susceptible to collapse and further erosion when saturated. Bolt or weld any members to the substructure. This can further compromise the bridge's stability.	SEVERE EROSION AT BRIDGE BENT
Debris caught on the substructure and lower truss members.	Remove debris to prevent scour around substructure. Clean lower truss members, connections, and bearings with high pressure water spray.	Attempt to straighten or repair impacted members as it can result in subsequent fracturing of members, particularly when members were previously heat-straightened. Allow debris to remain as it can cause corrosion and weakening of members.	DEBRIS CAUGHT ON TRUSS MEMBERS AND BETWEEN THE STRINGERS



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PROBLEM	SUGGESTIONS		EXAMPLE IMAGES
	DO:	DO NOT:	
Debris on the upstream side of the bridge.	•Remove debris, if possible.	• Do not allow debris to remain as it increases the velocity of water on substructure members and can increase scour at the base of the substructure supports.	DEBRIS ON THE UPSTREAM SIDE OF THE BRIDGE