

Johnson's Island Bridge

Summary of Richland Engineering Inspection Report Summary- August 2007

	Span 1 South Bridge	Span 2	Span 3 High Bridge	Span 4	Span 5 North Bridge
Overall Condition	Satisfactory	Fair	Satisfactory	Satisfactory	Satisfactory
Abutment Conditions	Good	Satisfactory	Satisfactory. Includes piers. Some pier spalling.	Satisfactory	Satisfactory
Box Beam Conditions	Satisfactory, With few local problems.	Fair. East beam delaminated where railing post was hit.	Satisfactory	Good	Good
Rock Channel Protection	Good	Satisfactory	Satisfactory	Satisfactory	Satisfactory
Asphalt Condition	Good	Good	Good	Good	Good
Abutment cracks in Asphalt	Yes- Small	Yes- Minor	Yes. Also over Piers	Yes	Yes
Key cracks in asphalt	Yes- Several	Yes- Minor	No	Yes. One with slight hump.	No

Maintenance and Repair Work Now Needed.	Replace missing railing post, fix anchor bolt problems.	Repair damaged east beam.	Patch spall and honeycomb areas of piers		
	Patch or seal spall areas of beams.		Paint or replace railing rail.		
			Clean gravel off deck.		
			Cut/ remove vegetation from slopes of abutments.		
			Add crushed aggregate slope protection as required.		
			Clean debris from pier and abutment seats.		
Annual Inspection & Maintenance Recommendations.	Maintain the rock channel protection around abutments.	Maintain the rock channel protection around abutments.	Maintain the rock channel protection around abutments. More rock could be added around piers.	Maintain the rock channel protection around abutments. Add material around wing wall corner as needed.	Maintain the rock channel protection around abutments.
	Seal abutment and key cracks in asphalt.	Seal abutment and key cracks in asphalt.	Seal abutment and key cracks in asphalt.	Seal abutment and key cracks in asphalt.	Seal abutment and key cracks in asphalt.
Consider for Future.	Consider upgrading railing to deep beam with tubular backup.	Consider upgrading railing to deep beam with tubular backup.	Consider upgrading railing to deep beam with tubular backup.	Consider upgrading railing to deep beam with tubular backup.	Consider upgrading railing to deep beam with tubular backup.
	Add membrane waterproofing and stainless steel drip pan when paving.	Add membrane waterproofing and stainless steel drip pan when paving.	Add membrane waterproofing and stainless steel drip pan when paving.	Add membrane waterproofing and stainless steel drip pan when paving.	Add membrane waterproofing and stainless steel drip pan when paving.
Notes related to possible long term improvements.	Remove asphalt wear surface. Replace with a 6" to 8" reinforced concrete deck slab. Must be analyzed for feasibility. GRB Comments: Slab weight of +/- 100,000# for a 51 ft span could be major issue. Would require one lane traffic on each bridge for a two to three month period (4 to 6 weeks per side) while concrete cures. High Rise bridge would require an automated traffic light control system. This work could cost almost as much as putting new beams on bridges, while leaving the old beams in place.				
	Clean and seal all concrete surfaces with an epoxy- urethane sealer. GRB Comments: This would contribute to extending the life of the present abutments and beams, as will sealing cracks. Replacement of the rubber membrane, and installing stainless steel drip plates the next time we pave, are also good recommendations.				