

		GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Infrastructure		BRIDGE INSPECTION REPORT B01282025-8	
Date: 1/24/2025		Inspected By: T Upshall / M Button		Category: Eng. - Engineering	
BRIDGE INFORMATION					
Site:		1-107 - AQUAFORTE RIVER BRIDGE - R			
SUBSTRUCTURE					
Condition:	F1 - Fair	Bearings:	U - Uninspectable		
		Bearing Seat:	U - Uninspectable		
Comments:	- Both abutments have light erosion to waterline concrete. Isolated locations on the north abutment with rust staining. F1 overall. - Abutment corners/bearing seat edges rehabilitated and have some hairline cracks throughout, F1. - All wingwalls have light to moderate scaling throughout with some hairline to narrow cracks, F1. - South abutment has a built-out plinth/corbel on the west side. No observed defects, F1.				
SUPERSTRUCTURE					
Condition:	F1 - Fair	Expansion Joints:	P - Poor		
Comments:	- Expansion joints paved over which may cause restricted movement of the structure. - Expansion joints visibly leaking onto the girders/diaphragms and bearing seats below, P. - Efflorescent leachate visible between the deck and curb construction joint on both the north and south sides. - West deck cantilever has moderate scaling throughout with isolated spalls exposing reinforcement (low cover). - Deck soffit has isolated locations with hairline cracks leaching efflorescent material near the expansion joints, F1 to P3. - Deck soffit looks damp throughout with isolated pockets of efflorescent leachate and spalls to reinforcement (low cover), F1 to P3.				
DECK					
Condition:	F1 - Fair	Curbs:	F1 - Fair		
Hand Rail:	F2 - Fair	Roadway Condition:	P3 - Poor		
Approach Rail:	F1 - Fair				
Comments:	*Assumed condition of deck top (covered in asphalt) based on condition of deck soffit below. - Guiderail not of type "Guiderail Structures". Both buried ends on the north side of the structure are damaged, P3. F1 remainder. - Steel railing in fair to good condition with no observed defects, F2. - End blocks have hairline map cracks throughout, F1. - All hazard markers in place. - Curb tops covered in snow, not inspectable. Exterior faces of the curb have light map cracking throughout but is more concentrated around the expansion joints, F1 overall. - Asphalt patched by back dragging a loader, thin layers of asphalt failing in various locations on the bridge deck, P3. - Asphalt cracked with isolated potholes throughout, P1.				
HYDROLOGY					
Water Velocity:	Fast m/s	Ice Problem:	N - No Problem		
Water Depth:	Deep m	Scour Problem:	P - Possible Problem		
Waterway:	01 - Adequate	Debris Problem:	N - No Problem		
Comments:	- Fast flowing deep water. - River in a steep ravine below the bridge. Waterfalls immediately downstream of the structure.				
REPLACEMENT/REHABILITATION					
Next Rehab. Date:	2030	Replacement Year:	2045		
Antic. Rehab. Cost:	\$350,000	Replacement Cost:	\$5,000,000		

Recommendations:	- Deck repairs + waterproof + pave structure. - Replace expansion joints and consider conversion to semi-integral. - Upgrade approach guiderail to "Guiderail Structures". Replace 2 buried ends. - Isolated concrete repairs and crack injections.		
OBSERVATIONS			
Overall Condition:	F1 - Fair	Requires Further Inspection:	No
Additional Observations:	- Structure in fair condition overall. Some concerns surrounding all the different colors of concrete on the underside of the deck soffit which could indicate water ingress from above. Monitor on future inspections. - Conduit attached to the downstream side of the structure.		

Department of Transportation and Infrastructure, Government of Newfoundland and Labrador 2026.