

		GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Infrastructure		BRIDGE INSPECTION REPORT B02052025-5	
Date: 1/30/2025		Inspected By: T Upshall / M Button		Category: Eng. - Engineering	
BRIDGE INFORMATION					
Site:		1-040 - HARBOUR GRACE BRIDGE, RIVERHEAD - R70			
SUBSTRUCTURE					
Condition:	P3 - Poor	Bearings:	U - Uninspectable		
		Bearing Seat:	U - Uninspectable		
Comments:	- All abutment exterior corners and wingwalls corners have light cracking throughout, F1. - Southeast abutment corner has moderate to severe cracking with efflorescence, P3. - All wingwalls in fair condition. Southeast wingwall near the area mentioned above has light to moderate map cracking with efflorescence, F1. - Could not check advancement of scour (if any) on the northeast corner of the structure mentioned in the last inspection report. - Full inspection not possible due to aggressive water.				
SUPERSTRUCTURE					
Condition:	P3 - Poor	Expansion Joints:	P - Poor		
Comments:	- Expansion gaps leaking. Water seen running down abutment faces from the bearing seat, P. - Double tees appear in fair condition from southeast abutment corner. - Deck soffit not visible. - Leakage between double tee precast sections observed. Water getting through cast in place deck above the pre-cast double tees, P3. - Deck drains extended below structure. Leakage between deck and drain observed, P3. - Full inspection not possible due to aggressive water.				
DECK					
Condition:	P3 - Poor	Curbs:	U - Uninspectable		
Hand Rail:	F2 - Fair	Roadway Condition:	F1 - Fair		
Approach Rail:	F2 - Fair				
Comments:	*Assumed condition of deck top (covered in asphalt) based on condition of deck soffit below. - Handrails replaced in 2016. No signs of distress, F2. - End blocks replaced in 2016. No signs of distress, F2. - Approach/exit rails and hazard markers, in fair condition with minor dents and scrapes. Guiderail not of type guiderail structures, F2. - Curbs not inspectable due to snow coverage. Three conduits visible through both curbs. - Asphalt has minor settlement over both abutments fill areas. Isolated wide transverse cracks in these areas, F1. F2 to Good remainder. - Both fascia's/curb exteriors have light to moderate scaling with minor disintegration along an overlay construction joint, F1				
HYDROLOGY					
Water Velocity:	Tidal* m/s	Ice Problem:	P - Possible Problem		
Water Depth:	Tidal* m	Scour Problem:	K - Known Problem		
Waterway:	01 - Adequate	Debris Problem:	N - No Problem		
Comments:	- Rip-rap at 4 corners of structure still has good placement. *Flow reversal occurred 3-4 times during inspection. 0.5 - 1m water level rise/falls during each flow reversal. - Could not check advancement of scour (if any) on the northwest corner of the structure identified on previous inspection. - Full inspection not possible due to aggressive water				
REPLACEMENT/REHABILITATION					
Next Rehab. Date:	2030	Replacement Year:	2040		

Antic. Rehab. Cost:	\$250,000	Replacement Cost:	\$3,500,000
Recommendations:	- Repair abutment corners. - Seal expansion gaps or install expansion joints. - Deck repairs + waterproof + pave. - Rehabilitation and replacement year based on current assessment of structure and its current age. - Evaluate cost against replacement. Rehabilitation will extend life beyond 2040.		
OBSERVATIONS			
Overall Condition:	P3 - Poor	Requires Further Inspection:	Yes
Additional Observations:	- Recommend an investigation for scour and what causes the witnessed flow reversal. - Hazardous area for inspection given the dramatic water level changes and fast current. - Could not check advancement of scour (if any) on the northwest corner of the structure identified on previous inspection. - Full inspection not possible due to aggressive water.		

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