

		GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Infrastructure		BRIDGE INSPECTION REPORT B08302022-2	
Date: 7/28/2022		Inspected By: M Button		Category: Office - Bridge Office	
BRIDGE INFORMATION					
Site:		4-129 - BALLAM BRIDGE - R440			
SUBSTRUCTURE					
Condition:	P3 - Poor	Bearings:	P3 - Poor		
		Bearing Seat:	P3 - Poor		
Comments:	- Both abutments have various cracks and large repair areas about to spall. Repairs extend from bearing seat down the abutment face (see bearing seat). - North abutment has severe erosion below the waterline. Bearings and bearings seat too high for in-depth inspection. Need a bucket truck for inspection. However, there are several spalls along both abutment bearing seat edges beginning to undermining several of the beams. Old repairs are delaminated and about to spall. - Pier bearing viewed from a distance appear to have moderate to severe corrosion with rust staining leaching onto the pier faces. - Both piers have moderate disintegration and erosion around the waterline. Nose of piers has no ice shield. Wide crack on both faces of each pier just downstream of the middle bearing. - Wingwalls in fair condition with narrow map cracks. Northwest wingwall has moderate to severe map cracking with efflorescence.				
SUPERSTRUCTURE					
Condition:	F1 - Fair	Expansion Joints:	P3 - Poor		
Comments:	- Girders have numerous rust stains on the bottom flange. Various wide longitudinal cracks to corroded reinforcement on the exterior members, F1 to P3. - Deck soffit in fair condition, F1. - Expansion joints over both abutments leaking. Efflorescent material visible behind diaphragms. No expansion joints over the piers. No chaulking in expansion gaps, P3. - No inspection to girders and deck soffit in the middle span.				
DECK					
Condition:	F1 - Fair	Curbs:	F1 - Fair		
Hand Rail:	F1 - Fair	Roadway Condition:	P - Poor		
Approach Rail:	P3 - Poor				
Comments:	- Remaining asphalt is heavily rutted. Most asphalt has worn to the concrete deck, P. - Concrete deck has several pot holes exposing reinforcement. Others have been patched with asphalt. - Curb exteriors in good condition. Efflorescent leakage between the deck and curb construction joint along the length of the bridge on the upstream side. - Curbs along the roadway are mostly covered in gravels but appear to be in fair condition. - Structure rail has minor dents and scrapes, F1. - Guiderail in poor condition, connected to end blocks, does not have current specification post spacing and is missing all hazard markers.				
HYDROLOGY					
Water Velocity:	0.5 m/s	Ice Problem:	P - Possible Problem		
Water Depth:	10 m	Scour Problem:	P - Possible Problem		
Waterway:	01 - Adequate	Debris Problem:	P - Possible Problem		
Comments:	- Water is fast flowing and deep (Humber River).				
REPLACEMENT/REHABILITATION					
Next Rehab. Date:	2025	Replacement Year:	2030		
Antic. Rehab. Cost:	\$250,000	Replacement Cost:	\$6,000,000		

Recommendations: - Complete proper repairs to deck pot holes. - Waterproof and resurface structure. - Inject cracks on piers. - Patch all spalls and old repairs on abutments. - Install new guiderail and posts complete with hazard markers. - Replace expansion joints. - Complete repairs to piers around waterline. - Consider a structure replacement within 5-10 years.

OBSERVATIONS

Overall Condition:	P3 - Poor	Requires Further Inspection:	No
Additional Observations:	- Bridge overall P3. Deck with F1. - Watch proximity to water. Need a boat, traffic control and a bucket truck for a detailed inspection.		

Department of Transportation and Infrastructure, Government of Newfoundland and Labrador 2024.