

	GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Infrastructure	<b>BRIDGE INSPECTION REPORT</b> <b>B07102024-8</b>	
<b>Date:</b> 7/8/2024	<b>Inspected By:</b> D. Burns/J. Rowe/B. Grandy	<b>Category:</b> Eng. - Engineering	
<b>BRIDGE INFORMATION</b>			
<b>Site:</b>	2-054 - SUGAR LOAF BROOK BRIDGE		
<b>Route:</b>	212	<b>Overall Length:</b>	27.4 m
<b>Year Built:</b>	1972	<b>Est:</b> No	<b>Overall Width:</b> 10 m
<b>Year Last Rehab.:</b>	2008	<b>Est:</b> No	<b>Roadway Width:</b> 8.6 m
<b>Region:</b>	CENTRAL EAST	<b>Sidewalk Width:</b>	0 m
<b>Jurisdiction:</b>	Provincial	<b>Clearance to R.D. or N.W.L.:</b>	3.6 m
<b>Type of Structure:</b>	01 - AASH to Girder	<b>Max Depth of N.W.L.:</b>	1.5 m
<b>Purpose of Structure:</b>	03 - Over Navigable Waters		
<b>Type of Handrail:</b>	02 - Concrete Rail	<b>Spans:</b>	
<b>Roadway Surface:</b>	01 - Concrete	<b>Span No.:</b>	<b>Length</b>
<b>Alignment Vertical:</b>	01 - Good	1	19
<b>Alignment Horizontal:</b>	01 - Good	2	0
<b>Restrictions:</b>	No	3	0
		4	0
		5	0
		6	0
<b>BRIDGE PHOTOS</b>			
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**SUBSTRUCTURE**

<b>Condition:</b>	F1 - Fair	<b>Bearings:</b>	F1 - Fair
		<b>Bearing Seat:</b>	P3 - Poor
<b>Comments:</b>	Abutments have moderate map cracking with efflorescence throughout. Spalling on abutment 1 right. Abutment corners are moderately deteriorated. Visible cold joint through the entire width of abutment 2. Previous inspection mentions that bearings are undersized. Spalling on wingwall 2 corner. Disintegration with exposed rebar on abutment 1 left wingwall corner.		

**SUPERSTRUCTURE**

<b>Condition:</b>	F1 - Fair	<b>Expansion Joints:</b>	P3 - Poor
<b>Comments:</b>	Visible erosion and rust/efflorescence staining on girder 1 (downstream) due to drainage running off deck, hairline map cracking observed on this girder as well. Exposed rebar on girders 1 and 3 near abutment 2. exposed rebar on girder 4 near abutment 1. Previous report mentions that expansion joints are suspected to be leaking.		

**DECK**

<b>Condition:</b>	F1 - Fair	<b>Curbs:</b>	P3 - Poor
<b>Hand Rail:</b>	P1 - Poor	<b>Roadway Condition:</b>	F1 - Fair
<b>Approach Rail:</b>	P3 - Poor		
<b>Comments:</b>	Asphalt has alligator cracking throughout. left curb is in poor condition with moderate disintegration. Minor pothole on right side near approach 2. Hand rail concrete is dead in some areas, with some areas being deteriorated. Structural rail is rotting on abutment 2 left with erosion of asphalt near end block. Guide rail is not bolted to end blocks, terminal ends present at ends of guard rail.		

**HYDROLOGY**

<b>Water Velocity:</b>	Tidal m/s	<b>Ice Problem:</b>	N - No Problem
<b>Water Depth:</b>	Tidal m	<b>Scour Problem:</b>	N - No Problem
<b>Waterway:</b>	01 - Adequate	<b>Debris Problem:</b>	N - No Problem
<b>Comments:</b>	Deep streambed.		

**REPLACEMENT/REHABILITATION**

<b>Next Rehab. Date:</b>	2026	<b>Replacement Year:</b>	2045
<b>Antic. Rehab. Cost:</b>	\$200,000	<b>Replacement Cost:</b>	\$3,500,000
<b>Recommendations:</b>	Previous inspection - Replace structure rail, end blocks, curbs, deck drains expansion joints and portions of the deck. - Concrete repairs as required. - Upgrade guiderail post spacing and connect to new end blocks. Remove all gravels from the bridge deck. - Time frames are estimates only.		

**OBSERVATIONS**

<b>Overall Condition:</b>	F1 - Fair	<b>Requires Further Inspection:</b>	No
<b>Additional Observations:</b>	Biggest concern is the deck drains running on to girder 1.		

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