

	GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Infrastructure	<b>BRIDGE INSPECTION REPORT</b> <b>B05252022-22</b>	
<b>Date:</b> 5/13/2021	<b>Inspected By:</b> Butler	<b>Category:</b> Eng. - Engineering	
<b>BRIDGE INFORMATION</b>			
<b>Site:</b>	2-029 - RED HARBOUR RIVER WEST BRIDGE		
<b>Route:</b>	210	<b>Overall Length:</b>	70 m
<b>Year Built:</b>	1971	<b>Est:</b> No	<b>Overall Width:</b> 11.3 m
<b>Year Last Rehab.:</b>	2002	<b>Est:</b> No	<b>Roadway Width:</b> 9.3 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>	1.3 m
<b>Type of Structure:</b>	01 - AASH to Girder	<b>Max Depth of N.W.L.:</b>	1 m
<b>Purpose of Structure:</b>	04 - Over Non-Navigable Waters		
<b>Type of Handrail:</b>	01 - Aluminum Rail	<b>Spans:</b>	
<b>Roadway Surface:</b>	01 - Concrete	<b>Span No.:</b>	<b>Length</b>
<b>Alignment Vertical:</b>	01 - Good	1	31.5
<b>Alignment Horizontal:</b>	02 - Adequate	2	31.5
<b>Restrictions:</b>	No	3	0
		4	0
		5	0
		6	0
<b>BRIDGE PHOTOS</b>			
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**SUBSTRUCTURE**

<b>Condition:</b>	P3 - Poor	<b>Bearings:</b>	P3 - Poor
		<b>Bearing Seat:</b>	P3 - Poor
<b>Comments:</b>	Concrete abutments, pier and wingwalls. Concrete erosion and heavy cracking of the centre pier footing. Pier pedestal has severe cracking with efflorescence, disintegration along top edge. Three columns light cracking. Pier cap has cracking with efflorescence and disintegration of the ends from leaking joints. Cracking with efflorescence of abutment wall, mostly corners. Bearing pads squat, cracked and some exposed steel. Bearing seats have debris and formwork left. Span 1 girder 3 has concrete erosion at abutment. Abutment 2 right has a severe crack through it. Abutment 2 bearing pad 1 is cracked. Abutment 1 bearing pads 4 and 5 bearing seats cracked. Rip rap abutment one left is undermined and will slide, exposing wingwall and allow fill loss at the corner. old timber crib abutment one right side is significantly undermined and slope will fail if collapse happens.		

**SUPERSTRUCTURE**

<b>Condition:</b>	P3 - Poor	<b>Expansion Joints:</b>	P3 - Poor
<b>Comments:</b>	6 AASHTO girders. Some cracking and delamination of girder 6, both spans. Expansions joints are leaking, impact damage to armour and dams, some deterioration around curb sections. Span 1 girder 4 has exposed rebar. Girder 4, span 2 showing excessive rust staining and a check crack at midpoint of span (2017) now has large spall and mid point and several other places.		

**DECK**

<b>Condition:</b>	F2 - Fair	<b>Curbs:</b>	P3 - Poor
<b>Hand Rail:</b>	F2 - Fair	<b>Roadway Condition:</b>	P3 - Poor
<b>Approach Rail:</b>	P3 - Poor		
<b>Comments:</b>	Exposed concrete deck, abrasion, cracking and a few potholes with exposed rebar - expansion joints rough. Underside of deck has several areas of honeycombing with exposed rebar and some cracking with efflorescence. 4 rail aluminum hand rail with concrete end blocks, minor impact damage to end block abutment one left side. Approach rail is leaning, rusted and rotting posts. Left curb face significant deterioration and several sections of the fascia and soffit poor, Right curb fair, minor issues. There is excessive sand buildup on the deck. ID signs missing.		

**HYDROLOGY**

<b>Water Velocity:</b>	2 m/s	<b>Ice Problem:</b>	N - No Problem
<b>Water Depth:</b>	1 m	<b>Scour Problem:</b>	P - Possible Problem

<b>Waterway:</b>	01 - Adequate	<b>Debris Problem:</b>	N - No Problem
<b>Comments:</b>	Minor scour at centre pier, 0.1-0.2m depth - founded on bedrock. High rock fill banks in front of abutments, rip rap protection abutment two - undermining and sliding of fill may lead to exposed/undermined abutment footings.		
<b>REPLACEMENT/REHABILITATION</b>			
<b>Next Rehab. Date:</b>		<b>Replacement Year:</b>	
<b>Antic. Rehab. Cost:</b>	\$tbd	<b>Replacement Cost:</b>	\$tbd
<b>Recommendations:</b>	Rehab structure. Latex repairs, expansion joints, deck repairs, curb repairs, rip rap placement, guide rail. Install MSE wall at abutment 1 to retain fill. Replace ID signs.		
<b>OBSERVATIONS</b>			
<b>Overall Condition:</b>	P3 - Poor	<b>Requires Further Inspection:</b>	No
<b>Additional Observations:</b>			

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