

	GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Infrastructure	BRIDGE INSPECTION REPORT B09162022-3	
Date: 7/29/2022	Inspected By: M Button	Category: Office - Bridge Office	
BRIDGE INFORMATION			
Site:	4-103 - MIDDLE BROOK BRIDGE		
Route:	431	Overall Length:	32.2 m
Year Built:	1978	Est: Yes	Overall Width: 11.5 m
Year Last Rehab.:		Est: No	Roadway Width: 10.7 m
Region:	WEST COAST/NORTHERN		Sidewalk Width: 0 m
Jurisdiction:	Provincial	Clearance to R.D. or N.W.L.:	3.8 m
Type of Structure:	01 - AASH to Girder	Max Depth of N.W.L.:	0 m
Purpose of Structure:	03 - Over Navigable Waters		
Type of Handrail:	01 - Aluminum Rail	Spans:	
Roadway Surface:	02 - Asphalt	<u>Span No.:</u>	<u>Length</u>
Alignment Vertical:	01 - Good	1	23.8
Alignment Horizontal:	01 - Good	2	0
Restrictions:	No	3	0
		<u>Span No.:</u>	<u>Length</u>
		4	0
		5	0
		6	0
BRIDGE PHOTOS			
			
SUBSTRUCTURE			
Condition:	F1 - Fair	Bearings:	P1 - Poor
		Bearing Seat:	F1 - Fair
Comments:	- East abutment face has various rust stains especially towards the downstream side, F1. - East abutment bearings are cracked and deformed, P3 to P1. - West abutment in fair condition, no observable defects. - West abutment bearings too high for inspection. - Both bearing seats in fair condition with evidence of leakage from the expansion joints above. - Wingwalls in fair to good condition on the upstream side. Downstream wingwalls have various rust stains and small surface spalls, F1.		
SUPERSTRUCTURE			
Condition:	F2 - Fair	Expansion Joints:	P3 - Poor
Comments:	- Downstream girder has isolated rust stains and a wide longitudinal crack along the bottom flange from corrosion to reinforcement. All other girders in fair condition. - Deck soffit in fair condition. Overhang on downstream side (under curb), has numerous spalls exposing reinforcement, P3. This area is part of the downstream curb. - Expansion joints paved over. Some areas visible and steel armor plating severely damaged.		

DECK			
Condition:	F2 - Fair	Curbs:	P3 - Poor
Hand Rail:	P3 - Poor	Roadway Condition:	P3 - Poor
Approach Rail:	I - Inapplicable		
Comments:	- Asphalt settled over expansion joints with wide transverse and map cracks. Area also has potholes, P3. Deck asphalt in fair condition. - Curb tops not visible due to gravel coverage. North exterior corners of the curb has extreme disintegration exposing the expansion joint steel extending back into the deck concrete, P3. - Downstream curb exterior has severe spalling and disintegration along the full length exposing reinforcement with light corrosion, P3. - Structure rail in fair condition upstream. Three posts twisted downstream causing the top rail to become disconnected. - No guiderail or hazard markers.		
HYDROLOGY			
Water Velocity:	0.3 m/s	Ice Problem:	N - No Problem
Water Depth:	0.3 m	Scour Problem:	N - No Problem
Waterway:	02 - InAdequate	Debris Problem:	N - No Problem
Comments:	- Area highly susceptible to floods in mountains. River bed recently rock lined. Southwest structure corner needs new riprap. Slope severely undermined along wingwall.		
REPLACEMENT/REHABILITATION			
Next Rehab. Date:	2025	Replacement Year:	2045
Antic. Rehab. Cost:	\$150,000	Replacement Cost:	\$3,000,000
Recommendations:	- Structure curbs and edges covered in deep gravel, clean bridge. - Remove overgrowth. - Replace three rail posts on the structure downstream. - Install end blocks, hazard markers and regulation guiderails. - Replace expansion joints. - Install new riprap on southwest corner. - Replace downstream curb.		
OBSERVATIONS			
Overall Condition:	F1 - Fair	Requires Further Inspection:	No
Additional Observations:	- Deck and girders in fair condition. Curb and bearings in poor condition.		
LEGEND:			
Condition Definitions:		Problem Definitions:	
1 - *Good - [discontinued code].	F2 - Fair.	C - Unsafe (Closed to Public).	N - No Problem.
2 - *Fair - [discontinued code].	F1 - Fair.	U - Uninspectable.	P - Possible Problem.
3 - *Poor - [discontinued code].	P3 - Poor.	I - Inapplicable.	K - Known Problem.
4 - *Unsafe - [discontinued code].	P1 - Poor.		NA - Not Applicable.
G - Good.	P - Poor.		
Category Definitions:			
Maint. - Maintenance.		Eng. - Engineering.	
Office - Bridge Office.			
PHOTO GUIDELINES:			
Inspection Photos:			
Please provide photos using guidelines below:			
<ul style="list-style-type: none"> ● Any item which inspector feels should be documented by photograph ● All items noted above as being P3, P1, P, or C ● Any evidence of known ice, scour, debris, waterway problems 			
INSPECTION PHOTOS			