

	GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Infrastructure	<b>BRIDGE INSPECTION REPORT</b> <b>B08162023-6</b>	
<b>Date:</b> 11/1/2022	<b>Inspected By:</b> M Button	<b>Category:</b> Office - Bridge Office	
<b>BRIDGE INFORMATION</b>			
<b>Site:</b>	4-076 - BOWING BROOK BRIDGE		
<b>Route:</b>	430	<b>Overall Length:</b>	41.5 m
<b>Year Built:</b>	1970	<b>Est:</b> No	<b>Overall Width:</b> 10.9 m
<b>Year Last Rehab.:</b>		<b>Est:</b> No	<b>Roadway Width:</b> 10.1 m
<b>Region:</b>	WEST COAST/NORTHERN		<b>Sidewalk Width:</b> 0 m
<b>Jurisdiction:</b>	Provincial	<b>Clearance to R.D. or N.W.L.:</b>	8.5 m
<b>Type of Structure:</b>	01 - AASH to Girder	<b>Max Depth of N.W.L.:</b>	0.3 m
<b>Purpose of Structure:</b>	03 - Over Navigable Waters		
<b>Type of Handrail:</b>	01 - Aluminum Rail		
<b>Roadway Surface:</b>	02 - Asphalt	<b>Span No.:</b>	<b>Length</b>
<b>Alignment Vertical:</b>	01 - Good	1	31.3
<b>Alignment Horizontal:</b>	01 - Good	2	0
<b>Restrictions:</b>	No	3	0
		<b>Span No.:</b>	<b>Length</b>
		4	0
		5	0
		6	0
<b>BRIDGE PHOTOS</b>			
<b>SUBSTRUCTURE</b>			
<b>Condition:</b>	P3 - Poor	<b>Bearings:</b>	U - Uninspectable
		<b>Bearing Seat:</b>	U - Uninspectable
<b>Comments:</b>	- North abutment has large spalls exposing severely corroded rebar. There are medium to wide cracks along the abutment surface. The concrete is delaminating throughout the abutment. There is a medium vertical crack on one exterior corner that runs from the base to the top of the abutment. Areas of the concrete surface are stained from corroded steel, P3. - South abutment is in fair condition. There is a wide vertical crack spanning from the base of the abutment to the top near the center. The crack has efflorescence leaching out near the base, F1. - Wing walls have medium map cracking. Some of the cracks have moderate efflorescence leaching out. There is light to medium disintegration over the surface of the wing walls. One wing wall has a very wide, horizontal crack in line with the bearing seat. There are medium and wide cracks propagating out of the wide crack. The concrete surface has areas that are stained from corroded steel, F1 to P3. - Bearings and bearing seats – Uninspectable		
<b>SUPERSTRUCTURE</b>			
<b>Condition:</b>	P1 - Poor	<b>Expansion Joints:</b>	U - Uninspectable
<b>Comments:</b>	- Girders – All girders have numerous areas of concrete spalling all around exposing rebar with medium corrosion. There are narrow cracks throughout, P1. - Diaphragms are in fair condition with light rust staining, F1. - Deck soffit has numerous small to medium spalls exposing severely corroded rebar. Areas of the concrete around the spalls are starting to delaminate. Areas of the concrete surface are stained from corroded steel. On one fascia, there is a spall around rail post exposing the anchors, P3 to P1. - Underside of deck small to medium spalls that are exposing severely corroded rebar. Areas of the concrete around the spalls are starting to delaminate. Areas of the concrete surface are stained from corroded steel, P3. - Expansion joints have been paved over. Uninspectable.		
<b>DECK</b>			

<b>Condition:</b>	P3 - Poor	<b>Curbs:</b>	I - Inapplicable
<b>Hand Rail:</b>	F1 - Fair	<b>Roadway Condition:</b>	F1 - Fair
<b>Approach Rail:</b>	F1 - Fair		
<b>Comments:</b>	- Roadway is in fair condition. The asphalt covering the expansion joints has light to medium map cracking along the joints. There are small spalls around the map cracks. There is one severe pothole in the center of the deck, F1. - Curbs – N/A - End blocks – N/A - Handrail is in fair condition. One of the posts is bent and detached from the top rail. The top rail is bent in one area, F1. - Guiderail are in fair condition. A number of posts have light cracks. One posts has light splintering and is disconnecting from the base. All hazard markers are present and posts spacing is acceptable, F1.		

**HYDROLOGY**

<b>Water Velocity:</b>	0 m/s	<b>Ice Problem:</b>	N - No Problem
<b>Water Depth:</b>	0 m	<b>Scour Problem:</b>	N - No Problem
<b>Waterway:</b>	01 - Adequate	<b>Debris Problem:</b>	N - No Problem
<b>Comments:</b>			

**REPLACEMENT/REHABILITATION**

<b>Next Rehab. Date:</b>		<b>Replacement Year:</b>	2030
<b>Antic. Rehab. Cost:</b>	\$	<b>Replacement Cost:</b>	\$4,000,000
<b>Recommendations:</b>	Replace by 2030 or sooner. Bridge is beyond saving.		

**OBSERVATIONS**

<b>Overall Condition:</b>	P1 - Poor	<b>Requires Further Inspection:</b>	Yes
<b>Additional Observations:</b>	- Bridge is in overall poor condition, P1 with some fair areas. Bridge should be inspected each year until replacement.		

<b>LEGEND:</b>				
<b>Condition Definitions:</b>		<b>Problem Definitions:</b>		<b>Category Definitions:</b>
1 - *Good - [discontinued code].	F2 - Fair.	C - Unsafe (Closed to Public).	N - No Problem.	Maint. - Maintenance.
2 - *Fair - [discontinued code].	F1 - Fair.	U - Uninspectable.	P - Possible Problem.	Eng. - Engineering.
3 - *Poor - [discontinued code].	P3 - Poor.	I - Inapplicable.	K - Known Problem.	Office - Bridge Office.
4 - *Unsafe - [discontinued code].	P1 - Poor.		NA - Not Applicable.	
G - Good.	P - Poor.			
<b>PHOTO GUIDELINES:</b>				
<b>Inspection Photos:</b>				
Please provide photos using guidelines below:				
<ul style="list-style-type: none"> <li>● Any item which inspector feels should be documented by photograph</li> <li>● All items noted above as being P3, P1, P, or C</li> <li>● Any evidence of known ice, scour, debris, waterway problems</li> </ul>				

**INSPECTION PHOTOS**