

	GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Infrastructure	<b>BRIDGE INSPECTION REPORT</b> <b>B08162023-5</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>	4-077 - BOUND BROOK BRIDGE		
<b>Route:</b>		<b>Overall Length:</b>	31.9 m
<b>Year Built:</b>	1970	<b>Est:</b> No	<b>Overall Width:</b> 10.8 m
<b>Year Last Rehab.:</b>		<b>Est:</b> No	<b>Roadway Width:</b> 10 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> 3.9 m
<b>Type of Structure:</b>	01 - AASH to Girder		<b>Max Depth of N.W.L.:</b> 0.5 m
<b>Purpose of Structure:</b>	04 - Over Non-Navigable Waters		<b>Spans:</b>
<b>Type of Handrail:</b>	01 - Aluminum Rail		<u>Span No.:</u> <u>Length</u> <u>Span No.:</u> <u>Length</u>
<b>Roadway Surface:</b>	02 - Asphalt	1	19.1    4    0
<b>Alignment Vertical:</b>	01 - Good	2	0    5    0
<b>Alignment Horizontal:</b>	01 - Good	3	0    6    0
<b>Restrictions:</b>	No		
<b>BRIDGE PHOTOS</b>			
<b>SUBSTRUCTURE</b>			
<b>Condition:</b>	F1 - Fair	<b>Bearings:</b>	P3 - Poor
		<b>Bearing Seat:</b>	F1 - Fair
<b>Comments:</b>	North abutment has light to medium map cracking with efflorescence throughout. There is medium disintegration over the surface of the abutment. There is a medium spall on the exterior corner which is exposing corroded rebar. The concrete surrounding the spall appears to be delaminating, F1 to P3. - South abutment is in fair condition. There is light to medium map cracking on the exterior corners. There are areas of disintegration throughout, with corroded steel exposed in one corner, F1. - Wingwalls have medium map cracking with efflorescence on the exterior corners. There are medium to large spalls throughout. There is exposed rebar with severe corrosion. The concrete surface is stained from the corroded steel. One wingwall has delaminating concrete on the exterior corner, F1 to P3. - Bearings – Elastomeric pads – There are medium to wide cracks on some bearings, bulging on most bearings, F1 to P3. - Bearing seats have light deterioration along the surface. There is gravel and other debris on areas of the bearing seats, F1.		
<b>SUPERSTRUCTURE</b>			
<b>Condition:</b>	P3 - Poor	<b>Expansion Joints:</b>	U - Uninspectable
<b>Comments:</b>	- Girders have light to medium deterioration on the exterior girders. There are narrow cracks in local areas. The exterior girder at the South end has wide cracks on the corners of the girder. The exterior concrete surface is stained from corroded steel. The center girder has wide cracks and delaminating concrete at the North bearing seat, F1 to P3. - Diaphragms are in fair condition, F1. - Underside of deck has small to medium spalls throughout. The spalls are exposing severely corroded rebar. Some of the concrete around the spalls appear to be delaminating. There are narrow cracks throughout, F1. - Deck soffit has very large spalls along the side and underside. The spalls are exposing a large amount of corroded rebar. The concrete surface is stained from the corroded steel. The North end of the deck cantilever has a large spall that is exposing a corroded handrail anchor, P3. - Expansion joints are paved over. One area of exposed expansion joint is lightly corroded. There is exposed		

seal from spalled asphalt. The exposed seal is in fair condition.

**DECK**

<b>Condition:</b>	F1 - Fair	<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. There is light progressive edge and map cracking along the asphalt covering the expansion joints. There are small spalls from the cracked asphalt at the expansion joints. There is light rutting throughout, F1. - Curbs – N/A - End blocks – N/A - Handrails are in overall fair condition. There are minor dents throughout. One of the rails has a small hole with bent steel surrounding it, F1. - Guiderail is in fair condition, 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>	2033	<b>Replacement Year:</b>	2045
<b>Antic. Rehab. Cost:</b>	\$300000	<b>Replacement Cost:</b>	\$0
<b>Recommendations:</b>	- Recommended to rehab wingwalls, deck soffit, and North abutment. Recommended to install new concrete end blocks and curbs.		

**OBSERVATIONS**

<b>Overall Condition:</b>	F1 - Fair	<b>Requires Further Inspection:</b>	No
<b>Additional Observations:</b>	- Bridge is in overall poor condition, F1 with P3 areas.		

**LEGEND:**

<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.			

**PHOTO GUIDELINES:**

**Inspection Photos:**

- Please provide photos using guidelines below:
- Any item which inspector feels should be documented by photograph
  - All items noted above as being P3, P1, P2, or C
  - Any evidence of known ice, scour, debris, waterway problems