

	GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Infrastructure	<b>BRIDGE INSPECTION REPORT</b> <b>B11172021-5</b>	
<b>Date:</b> 10/17/2021	<b>Inspected By:</b> Mike Button	<b>Category:</b> Office - Bridge Office	
<b>BRIDGE INFORMATION</b>			
<b>Site:</b>	1-124 - NORTHEAST RIVER BRIDGE, PLACENTIA		
<b>Route:</b>	100	<b>Overall Length:</b>	22.7 m
<b>Year Built:</b>	1972	<b>Est: Yes</b>	<b>Overall Width:</b> 10.4 m
<b>Year Last Rehab.:</b>	1985	<b>Est: Yes</b>	<b>Roadway Width:</b> 9.6 m
<b>Region:</b>	AVALON PENINSULA		<b>Sidewalk Width:</b> 0.4 m
<b>Jurisdiction:</b>	Provincial		<b>Clearance to R.D. or N.W.L.:</b> 3 m
<b>Type of Structure:</b>	02 - Double Tee		<b>Max Depth of N.W.L.:</b> 1.5 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>	01 - Concrete		1            9.9        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>	U - Uninspectable
		<b>Bearing Seat:</b>	P3 - Poor
<b>Comments:</b>	- Southwest wingwall and side of abutment in fair condition with mild map cracking. Erosion along the back side of the wall. Remaining wingwalls in good condition, F2. - Both abutment faces have mild efflorescence through the horizontal extension construction joint. - North abutment has light cracking with efflorescence on both exterior corners. - Northeast abutment corner/bearing seat has a large wedged section of concrete cracked and possibly starting to separate from the main structure. Monitor on future inspections, P3. There is also a medium sized spall behind along the creep block construction joint in the same area, P3. - The original and extensions of the center pier have mild cracking throughout. The upstream nose has a small to medium scour hole, F1. The upstream pier bearing seat under the creep block has a small spall likely caused from the expansion joint leakage above.		
<b>SUPERSTRUCTURE</b>			
<b>Condition:</b>	F1 - Fair	<b>Expansion Joints:</b>	P3 - Poor
	- All three expansion joints filled with road gravels and not clearly visible from above. The expansion joint over the		

**Comments:** pier is leaking with evidence of water running down over the pier and has caused severe disintegration to the exterior curb, P3. Other expansion joints appear to be intact/not leaking. - Double tees have exposed stirrups in isolated locations. Isolated double tee panel to panel joints are leaking with mild efflorescence, F1 for now. Monitor progression on future inspections. In isolated locations the rebar mat is exposed on the bottom of the pre-cast sections.

**DECK**

<b>Condition:</b>	F1 - Fair	<b>Curbs:</b>	P3 - Poor
<b>Hand Rail:</b>	F1 - Fair	<b>Roadway Condition:</b>	P3 - Poor
<b>Approach Rail:</b>	I - Inapplicable		
<b>Comments:</b>	- No asphalt on deck nor approaches. Approaches have numerous potholes in the gravels, P3. Concrete surface in fair condition on the deck, F1. - Handrail damaged on the northeast corner, P3. Handrail in fair condition on the rest of the structure. - No end blocks, hazard markers or approach/exit guiderail. - Roadway curb in fair condition with mild cracks and spalling throughout. Curb chaulking cracked in most locations. Both exterior curb/fascia's around the pier expansion joint has severe disintegration/spalling with wide cracks and efflorescence propagating from the spall/hole, P3. Remainder of both exterior curb/fascia's in fair condition, F1.		

**HYDROLOGY**

<b>Water Velocity:</b>	1 m/s	<b>Ice Problem:</b>	N - No Problem
<b>Water Depth:</b>	0.8 m	<b>Scour Problem:</b>	K - Known Problem
<b>Waterway:</b>	01 - Adequate	<b>Debris Problem:</b>	N - No Problem
<b>Comments:</b>	- No hydraulic rip-rap around pier nose or on any abutment corners upstream. Downstream rip-rap and gabions in good condition and have good placement on the southwest side.		

**REPLACEMENT/REHABILITATION**

<b>Next Rehab. Date:</b>	2024	<b>Replacement Year:</b>	2035
<b>Antic. Rehab. Cost:</b>	\$100,000	<b>Replacement Cost:</b>	\$1,500,000
<b>Recommendations:</b>	- Install approach/exit guiderail and hazard markers. Repair curbs over the pier. Re-chaulk all curbs. - Repair upstream pier and northeast creep block areas. Repair pier nose scour and place a steel nose if possible. - Replace expansion joints with asphaltic plug joints, this will function better on a gravel road. Place hydraulic rip-rap as required.		

**OBSERVATIONS**

<b>Overall Condition:</b>	F1 - Fair	<b>Requires Further Inspection:</b>	No
<b>Additional Observations:</b>	- Extension on this structure is upstream, downstream and vertical. - Hazards, mild traffic and steep slopes. Various elements are P3, structure deemed in fair condition overall.		

**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, P, or C  
 ● Any evidence of known ice, scour, debris, waterway problems

**INSPECTION PHOTOS**