

	GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Infrastructure	BRIDGE INSPECTION REPORT B08202021-3	
Date: 8/12/2021	Inspected By: Mike Button	Category: Office - Bridge Office	
BRIDGE INFORMATION			
Site:	1-100 - RYAN'S BROOK BRIDGE, SPANIARDS BAY		
Route:	70	Overall Length:	21 m
Year Built:	1971	Est: No	Overall Width: 10.3 m
Year Last Rehab.:		Est: No	Roadway Width: 8 m
Region:	AVALON PENINSULA	Sidewalk Width:	1.1 m
Jurisdiction:	Provincial	Clearance to R.D. or N.W.L.:	3.7 m
Type of Structure:	02 - Double Tee	Max Depth of N.W.L.:	1 m
Purpose of Structure:	04 - Over Non-Navigable Waters	Spans:	
Type of Handrail:	02 - Concrete Rail	Span No.:	Length
Roadway Surface:	02 - Asphalt	1	10.3
Alignment Vertical:	01 - Good	2	0
Alignment Horizontal:	01 - Good	3	0
Restrictions:	No	Span No.:	Length
		4	0
		5	0
		6	0
BRIDGE PHOTOS			
			
SUBSTRUCTURE			
Condition:	F2 - Fair	Bearings:	U - Uninspectable
		Bearing Seat:	F2 - Fair
Comments:	- Both the north and south abutment faces towards the river are in good condition. Very mild sporadic cracking in some locations. Both footing to abutment construction joints opening up with mild-medium deterioration to concrete. - Northeast bearing seat has a medium spall with exposed reinforcement. - Horizontal CJ's from abutment bearing seat level to top of curb are starting to open up on all wing walls. - All bearing areas look to be intact and in good condition from the river below.		
SUPERSTRUCTURE			
Condition:	P3 - Poor	Expansion Joints:	U - Uninspectable
Comments:	- Concrete on the underside of the deck around all deck drains has medium-severe deterioration and the draining water/salts have removed a circumferential area of concrete around the drains exposing rebar in the spall. - Double tees around deck drains starting to deteriorate, especially the southwest exterior. Large crack visible with concrete about to spall, stressing strand visible. Double tees generally in good condition. - Rebar grid starting to		

show between double tees on the underside of the deck. - Double tees around deck drains P3, F1 remainder.

DECK

Condition:	F1 - Fair	Curbs:	F2 - Fair
Hand Rail:	F1 - Fair	Roadway Condition:	F2 - Fair
Approach Rail:	F2 - Fair		
Comments:	- Curbs have light spalling/cracking and weathering. - Curbs have no chaulking across them. - Asphalt surface is in good condition. - Approach/exit rail newly installed, no hazard markers as inside a long stretch of guiderail. - Rail not connected to end blocks. - Concrete handrail top caps cracked in half but still attached. Some rails have large cracks to the reinforcement, overall condition ok. Structure likely re-surfaced and had new guard rail installed since last inspection. - Both the upstream and downstream fascia's have light weathering with light-narrow cracking.		

HYDROLOGY

Water Velocity:	0.4 m/s	Ice Problem:	N - No Problem
Water Depth:	0.3 m	Scour Problem:	N - No Problem
Waterway:	01 - Adequate	Debris Problem:	N - No Problem
Comments:	- Can walk under structure with rubber boots on. No scour on either footing.		

REPLACEMENT/REHABILITATION

Next Rehab. Date:	2026	Replacement Year:	2040
Antic. Rehab. Cost:	\$100000	Replacement Cost:	\$1500000
Recommendations:	- Repair concrete around deck drains. Install a 45deg elbow and extend drains 1m below structure. Complete repair/install ASAP to prevent deterioration to otherwise good condition structure. - Install chaulking in expansion joints over curbs. - Repair all other concrete defects.		

OBSERVATIONS

Overall Condition:	F1 - Fair	Requires Further Inspection:	No
Additional Observations:	- Telecoms line? Attached to structure on downstream side (with zip ties). - Abutments have a lot of graffiti. - Rehabbed since last inspection (guardrail & re-surface). - P3 double tees around deck drains and deck concrete around them. - F1 remainder. Hazards: Heavy traffic, steep slopes.		

LEGEND:

Condition Definitions:			Problem Definitions:	Category Definitions:
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