

	GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Works	BRIDGE INSPECTION REPORT B10082021-3 Printed: Friday, October 8, 2021	
Date: 10/5/2021	Inspected By: Mike Button	Category: Office - Bridge Office	
BRIDGE INFORMATION			
Site:	TCH-016 - DARK HOLE BROOK BRIDGE		
Route:	1	Overall Length:	19.5 m
Year Built:	1965	Est: No	Overall Width: 18.4 m
Year Last Rehab.:	1997	Est: No	Roadway Width: 16.2 m
Region:	CENTRAL EAST	Sidewalk Width:	0 m
Jurisdiction:	Provincial	Clearance to R.D. or N.W.L.:	3.5 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:	01 - Aluminum Rail	<u>Span No.:</u>	<u>Length</u>
Roadway Surface:	02 - Asphalt	<u>Span No.:</u>	<u>Length</u>
Alignment Vertical:	01 - Good	1	10.5
Alignment Horizontal:	01 - Good	2	0
Restrictions:	No	3	0
		4	0
		5	0
		6	0
BRIDGE PHOTOS			
			
SUBSTRUCTURE			
Condition:	F1 - Fair (Inspection within 1 Year)	Bearings:	U - Uninspectable
		Bearing Seat:	U - Uninspectable
Comments:	- South abutment footing construction joint starting to open. Face has medium staining throughout, F1. Southwest abutment corner has a vertical crack propagating from the bearing seat to the footing construction joint. Monitor corner for future spalls that could undermine the exterior double tee. East extension face in fair condition. Southeast corner has medium efflorescence around exterior creep block construction joint. - North abutment footing construction joint starting to open. Face has medium staining throughout. Area of mild scour around the mid-transverse point. East extension face in fair condition. Northeast corner has medium efflorescence around exterior creep block construction joint. - West wingwalls have medium-heavy cracking with efflorescence throughout. Corners to abutment faces rehabbed in the past and poured back. Patched construction joints have medium cracking with efflorescence. - East wingwalls in fair condition.		
SUPERSTRUCTURE			
Condition:	P3 - Poor (Repair within 3 Years)	Expansion Joints:	P3 - Poor (Repair within 3 Years)

Comments: - West fascia/curb has mild alligator cracking throughout. Chaulking cracked at south expansion joint. At approximately mid-span, wide oval shaped crack under handrail post, likely about to spall. Curb at north expansion joint has a large wide crack with mild efflorescence possibly no expansion joint here. - East fascia/curb has mild alligator cracking throughout. Chaulking cracked at south expansion joint. Curb at north expansion joint has a large wide crack with mild efflorescence, possibly no expansion joint here. - Bottom of deck has heavy efflorescence and rust staining between all double tee pre-cast panel sections. Rebar grid can be seen due to low cover or is exposed across most of the sections. One double tee is severely vertically split up through the web over 50% of its length, P1, superstructure P3.

DECK

Condition:	P3 - Poor (Repair within 3 Years)	Curbs:	F1 - Fair (Inspection within 1 Year)
Hand Rail:	F1 - Fair (Inspection within 1 Year)	Roadway Condition:	F1 - Fair (Inspection within 1 Year)
Approach Rail:	F1 - Fair (Inspection within 1 Year)		

Comments: - Asphalt in fair condition, wide transverse cracks in center lane & shoulder area. - Structural handrail in fair condition. - Curbs have mild-medium cracking throughout on the roadway side. - Approach/exit rail damaged on the northwest corner of structure, P3. Remainder of guiderail in fair condition, connected to end blocks complete with hazard markers. - Deck likely heavily cracked due to leakage between pre-cast sections, P3.

HYDROLOGY

Water Velocity:	0.4 m/s	Ice Problem:	N - No Problem
Water Depth:	0.3 m	Scour Problem:	P - Possible Problem
Waterway:	01 - Adequate	Debris Problem:	K - Known Problem

Comments: - Old washed out beaver dam located under structure. New beaver dam built upstream and has at least 1.5m of head built up behind it.

REPLACEMENT/REHABILITATION

Next Rehab. Date:	2024	Replacement Year:	2030
Antic. Rehab. Cost:	\$100,000.00	Replacement Cost:	\$1,500,000.00

Recommendations: - Complete superficial rehab of concrete defects, replace expansion joints and some sections of guiderail within 3-5 years. Replace structure within the next 10 years.

OBSERVATIONS

Overall Condition:	P3 - Poor (Repair within 3 Years)	Requires Further Inspection:	No
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Additional Observations: - F1 = substructure. P3 = superstructure & deck. Hazards, high speed traffic. Use rubber boots for inspection.

LEGEND:

Condition Definitions:			Problem Definitions:	Category Definitions:
1 - *Good - [discontinued code].	F2 - Fair (Inspection within 2 Years).	C - Unsafe (Closed to Public).	N - No Problem.	Maint. - Maintenance.
2 - *Fair - [discontinued code].	F1 - Fair (Inspection within 1 Year).	U - Uninspectable.	P - Possible Problem.	Eng. - Engineering.
3 - *Poor - [discontinued code].	P3 - Poor (Repair within 3 Years).	I - Inapplicable.	K - Known Problem.	Office - Bridge Office.
4 - *Unsafe - [discontinued code].	P1 - Poor (Repair within 1 Year).		NA - Not Applicable.	
G - Good (Inspection within 2 Years).	P - Poor (Immediate Repair).			

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