

	GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Infrastructure	BRIDGE INSPECTION REPORT B09102021-4																	
Date: 8/26/2021	Inspected By: Michael Button	Category: Office - Bridge Office																	
BRIDGE INFORMATION																			
Site:	1-057 - NEW BRIDGE, CAPE BROYLE																		
Route:		Overall Length:	25 m																
Year Built:	1970	Est: Yes	Overall Width: 8.9 m																
Year Last Rehab.:	1991	Est: No	Roadway Width: 7.3 m																
Region:	AVALON PENINSULA		Sidewalk Width: 0.75 m																
Jurisdiction:	Provincial		Clearance to R.D. or N.W.L.: 4 m																
Type of Structure:	02 - Double Tee		Max Depth of N.W.L.: 0 m																
Purpose of Structure:	04 - Over Non-Navigable Waters		Spans:																
Type of Handrail:	01 - Aluminum Rail		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>Span No.:</u></th> <th style="text-align: left;"><u>Length</u></th> <th style="text-align: left;"><u>Span No.:</u></th> <th style="text-align: left;"><u>Length</u></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>13.9</td> <td>4</td> <td>0</td> </tr> <tr> <td>2</td> <td>0</td> <td>5</td> <td>0</td> </tr> <tr> <td>3</td> <td>0</td> <td>6</td> <td>0</td> </tr> </tbody> </table>	<u>Span No.:</u>	<u>Length</u>	<u>Span No.:</u>	<u>Length</u>	1	13.9	4	0	2	0	5	0	3	0	6	0
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1	13.9	4	0																
2	0	5	0																
3	0	6	0																
Roadway Surface:	02 - Asphalt																		
Alignment Vertical:	01 - Good																		
Alignment Horizontal:	02 - Adequate																		
Restrictions:	No																		
BRIDGE PHOTOS																			
<div style="display: flex; justify-content: space-around;">   </div>																			
SUBSTRUCTURE																			
Condition:	P3 - Poor	Bearings:	U - Uninspectable																
		Bearing Seat:	U - Uninspectable																
Comments:	- Northwest wingwall has heavy-wide cracking in both the horizontal and vertical directions at the northwest corner/abutment face intersection. Light alligator cracking with efflorescence elsewhere. Area also has medium surface spalls. Long-wide and deep joint opening under deck curb, possible old cold joint in the deck. - North abutment is heavy cracked. Wide horizontal/vertical pattern cracking dominate the face. Northwest corner (old patch) cracked from water line to bearing area with efflorescence. Northeast patch heavy cracked and spalling. - South abutment has a long wide horizontal crack about 1m up from the bedrock spanning 2/3 of the abutment, other medium horizontal/vertical cracks form pattern cracking around it. Both the southeast and southwest patches are heavily cracked as well. Southeast patch joint to main structure is disintegrated. Light scour at the mid-point of the abutment. Bearing areas too high to inspect.																		
SUPERSTRUCTURE																			
Condition:	P3 - Poor	Expansion Joints:	U - Uninspectable																

Comments: - Upstream/west double tee precast panels in F2 condition. At about the midpoint of the structure, heavy leaking/efflorescence starts and gets progressively worse headed downstream/east. Downstream double tees, F1 but will degrade quickly due to the severity of the environment/leakage occurring between panels. - Suspect cracking in deck concrete as there is a lot of efflorescence between east pre-cast double tee joints, P3. Underside of deck generally in good condition between double tees. Areas around old patched deck drains have exposed reinforcement with medium-severe corrosion. - Heavy leakage/buildup around the exterior of functional deck drains.

DECK

Condition:	P3 - Poor	Curbs:	F1 - Fair
Hand Rail:	F2 - Fair	Roadway Condition:	F1 - Fair
Approach Rail:	F1 - Fair		

Comments: - Approach/exit rail has minor damage from an impact, F1. - Hazard marker missing on southwest end. - Asphalt surface has been patched, F1. - Mild alligator cracking on end blocks. End blocks connected to approach/exit rail. - Mild cracking on curbs, F1. - Heavy efflorescent leakage through wide cracks on downstream/east fascia. - Medium narrow cracking on upstream/west fascia. - Suspect cracking in deck concrete as there is a lot of efflorescence between east pre-cast double tee joints, P3.

HYDROLOGY

Water Velocity:	0.1 m/s	Ice Problem:	N - No Problem
Water Depth:	3 m	Scour Problem:	P - Possible Problem
Waterway:	01 - Adequate	Debris Problem:	N - No Problem

Comments: - Light scour on south abutment. Water very deep in pool under structure.

REPLACEMENT/REHABILITATION

Next Rehab. Date:	2024	Replacement Year:	2030
Antic. Rehab. Cost:	\$400000	Replacement Cost:	\$1500000

Recommendations: - Investigate condition of deck on downstream side. Abutments degrading. Assess for a replacement or medium-heavy rehab of deck and abutments.

OBSERVATIONS

Overall Condition:	P3 - Poor	Requires Further Inspection:	No
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Additional Observations: - P3 abutments, and downstream double tee leakage. F1 remainder. Conduit of some sort on the upstream side. Swimming area just upstream of structure. Hazards, deep water, traffic and steep slopes.

LEGEND:

Condition Definitions:

1 - *Good - [discontinued code].
 2 - *Fair - [discontinued code].
 3 - *Poor - [discontinued code].
 4 - *Unsafe - [discontinued code].
 G - Good.

F2 - Fair.
 F1 - Fair.
 P3 - Poor.
 P1 - Poor.
 P - Poor.

C - Unsafe (Closed to Public).
 U - Uninspectable.
 I - Inapplicable.

Problem Definitions:

N - No Problem.
 P - Possible Problem.
 K - Known Problem.
 NA - Not Applicable.

Category Definitions:

Maint. - Maintenance.
 Eng. - Engineering.
 Office - Bridge Office.

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