

	GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Infrastructure	BRIDGE INSPECTION REPORT B09102021-11	
Date: 8/26/2021	Inspected By: Mike Button	Category: Office - Bridge Office	
BRIDGE INFORMATION			
Site:	1-082 - RIVERHEAD BRIDGE, ST. MARY'S		
Route:		Overall Length:	16.4 m
Year Built:	1970	Est: No	Overall Width: 9.6 m
Year Last Rehab.:		Est: No	Roadway Width: 7.3 m
Region:	AVALON PENINSULA	Sidewalk Width:	1.5 m
Jurisdiction:	Provincial	Clearance to R.D. or N.W.L.:	1.9 m
Type of Structure:	02 - Double Tee	Max Depth of N.W.L.:	1.4 m
Purpose of Structure:	04 - Over Non-Navigable Waters	Spans:	
Type of Handrail:	02 - Concrete Rail	<u>Span No.:</u>	<u>Length</u>
Roadway Surface:	01 - Concrete	<u>Span No.:</u>	<u>Length</u>
Alignment Vertical:	01 - Good	1	10.4
Alignment Horizontal:	01 - Good	2	0
Restrictions:	No	3	0
		4	0
		5	0
		6	0
BRIDGE PHOTOS			
			
SUBSTRUCTURE			
Condition:	P3 - Poor	Bearings:	U - Uninspectable
		Bearing Seat:	P3 - Poor
Comments:	- Southeast wingwall/curb area has heavy erosion causing undermining. Southwest bearing area has a medium sized spill undermining the exterior creep block. Remaining exterior bearing areas have medium cracking with efflorescence, P3. *Interior bearing seat area looks intact from the shoreline, F1.* - Water too deep for a detailed abutment face inspection but from a distance, east abutment has minor rust staining on the surface. Mild erosion to abutment/footing construction joint with possible scour below the surface with medium erosion to concrete on the southeast corner. West abutment same comments but has med-severe erosion to northwest corner concrete due to lack of rip rap, P3.		
SUPERSTRUCTURE			
Condition:	F1 - Fair	Expansion Joints:	P3 - Poor
Comments:	- All double tee pre-cast panels have rebar to a mild-medium extent, rebar medium-severe corrosion. No evidence of leakage between pre-cast sections (no efflorescence running down double tees. Underdeck		

inspection not possible with current equipment). - Areas around deck drains on the underside of deck have exposed reinforcement all around with a small spall, monitor of future inspections, P3. - Light efflorescence running down face of both abutments indicating expansion joints are leaking from above. Evidence of leaking expansion joints, P3.

DECK

Condition:	P3 - Poor	Curbs:	F1 - Fair
Hand Rail:	P1 - Poor	Roadway Condition:	F1 - Fair
Approach Rail:	I - Inapplicable		
Comments:	- No approach/exit rails, hazard markers on end blocks. - No asphalt, deck concrete has potholes in some locations. Most of deck not visible due to gravel overlay, P3. - Handrails disintegrated in two sections on the north side, and in one section on the south side, only rebar left, P1. F1 elsewhere. - Curbs/fascia in fair condition, medium weathering with a possible cold joint on the north side. Mild cracking with efflorescence on the south side.		

HYDROLOGY

Water Velocity:	Tidal m/s	Ice Problem:	N - No Problem
Water Depth:	Tidal m	Scour Problem:	P - Possible Problem
Waterway:	01 - Adequate	Debris Problem:	N - No Problem
Comments:	- Corner rip-rap washed away and what is remaining no longer provided effective protection.		

REPLACEMENT/REHABILITATION

Next Rehab. Date:		Replacement Year:	2030
Antic. Rehab. Cost:	\$0	Replacement Cost:	\$800000
Recommendations:	- Replace gravels on southeast wingwall/curb and install drainage ditch. - Install new rip-rap. - Repair double tees. - Repair areas around deck drains. - Repair potholes in deck. - Rehab scheduled for later this fall (2021).		

OBSERVATIONS

Overall Condition:	P3 - Poor	Requires Further Inspection:	No
Additional Observations:	- P3 southeast wingwall erosion and bearing seat spalls/cracking. F1 remainder. - Clean deck of road gravels for proper inspection. Hazards, very light traffic, mild slopes and working around water.		

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