

	GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Infrastructure	BRIDGE INSPECTION REPORT B11182021-3	
Date: 10/22/2021	Inspected By: Mike Button	Category: Office - Bridge Office	
BRIDGE INFORMATION			
Site:	1-014 - ANGEL'S COVE BRIDGE		
Route:		Overall Length:	21.4 m
Year Built:	1969	Est: No	Overall Width: 9 m
Year Last Rehab.:		Est: No	Roadway Width: 7.5 m
Region:	AVALON PENINSULA	Sidewalk Width:	0 m
Jurisdiction:	Provincial	Clearance to R.D. or N.W.L.:	5.7 m
Type of Structure:	02 - Double Tee	Max Depth of N.W.L.:	0.5 m
Purpose of Structure:	04 - Over Non-Navigable Waters	Spans:	
Type of Handrail:	03 - Timber Rail	Span No.:	Length
Roadway Surface:	02 - Asphalt	Span No.:	Length
Alignment Vertical:	02 - Adequate	1	9.4
Alignment Horizontal:	03 - Poor	2	0
Restrictions:	No	3	0
		4	0
		5	0
		6	0
BRIDGE PHOTOS			
			
SUBSTRUCTURE			
Condition:	F1 - Fair	Bearings:	U - Uninspectable
		Bearing Seat:	F1 - Fair
Comments:	- South abutment built on bedrock and has light efflorescence coming from the footing to abutment construction joint. All abutment corners have a medium crack with efflorescent build up propagating from the bearing seat on steep angle to the abutment exterior corner. - Northwest and southeast wingwalls have moderate map cracking with efflorescence. Northeast wingwall has light vertical cracking and efflorescence. - North abutment poured on bedrock and has moderate scour throughout the length of the footing, F1. Footing construction joint opening up on the northeast corner.		
SUPERSTRUCTURE			
Condition:	F1 - Fair	Expansion Joints:	F1 - Fair
Comments:	- Double tees and the bottom of precast sections have rebar exposed throughout. Areas around deck drains has moderate spalling and severe corrosion to exposed rebar. Some locations around the mid transverse point of the bridge have heavy rust-stain leakage between pre-cast sections. - No visible leakage from bearing seats to		

indicate leaking expansion joints, F1.

DECK

Condition:	P3 - Poor	Curbs:	P3 - Poor
Hand Rail:	F1 - Fair	Roadway Condition:	P3 - Poor
Approach Rail:	P3 - Poor		
Comments:	- Approach/exit guiderail in fair condition, connected to end blocks, complete with energy dampening posts prior to end blocks and are heavily overgrown with alders. P3 due to overgrowth. No hazard markers. - Asphalt on structure and approaches has numerous potholes, P3. - Handrails in fair condition but have several dent/bends and twists. - Roadway curbs buried in sand/gravel with mild vegetation growth and were uninspectable, P3. - Both fascia's construction joint between the deck and pre-cast double tee sections have moderate rust staining with efflorescent stalactites hanging from the joint, indicating a corrosion path through the deck/curb, P3. Leakage likely accelerated by the gravel/salt deposits against the curbs on the roadway surface. - Both fascia's/curb exterior has moderate horizontal cracking with efflorescence.		

HYDROLOGY

Water Velocity:	0.7 m/s	Ice Problem:	N - No Problem
Water Depth:	0.5 m	Scour Problem:	K - Known Problem
Waterway:	01 - Adequate	Debris Problem:	N - No Problem
Comments:	- Moderate scour on the north abutment. Existing rip-rap has migrated into channel or has been washed away.		

REPLACEMENT/REHABILITATION

Next Rehab. Date:	2022	Replacement Year:	2030
Antic. Rehab. Cost:	\$100,000	Replacement Cost:	\$1,300,000
Recommendations:	- Need a bush clearing contract around structure/approaches. Install hazard markers. - Remove gravel against curbs to remove the curbs from an extreme chloride environment. Remove vegetation atop curbs. Repair curb concrete defects, if any, after removal of gravels. - Resurface structure and approaches. - Repair scour under the north abutment and place hydraulic rip-rap. - Chaulk expansion joint gaps in curb.		

OBSERVATIONS

Overall Condition:	F1 - Fair	Requires Further Inspection:	No
Additional Observations:	- Alignment from both ends of the structure creates blind hills & turns. - Hazards, medium traffic, very steep slopes and movable rocks down the slope. - Old structure just upstream.		

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