

	GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Infrastructure	BRIDGE INSPECTION REPORT B10132021-6	
Date: 10/6/2021	Inspected By: Mike Button	Category: Office - Bridge Office	
BRIDGE INFORMATION			
Site:	2-143 - CHAPEL ARM BRIDGE NO.3		
Route:	201	Overall Length:	4 m
Year Built:	1960	Est: No	Overall Width: 8.2 m
Year Last Rehab.:		Est: No	Roadway Width: 7.9 m
Region:	CENTRAL EAST	Sidewalk Width:	0 m
Jurisdiction:	Provincial	Clearance to R.D. or N.W.L.:	2 m
Type of Structure:	03 - Reinforced Concrete Beam/Slab	Max Depth of N.W.L.:	1 m
Purpose of Structure:	04 - Over Non-Navigable Waters	Spans:	
Type of Handrail:	06 - None	<u>Span No.:</u>	<u>Length</u>
Roadway Surface:	02 - Asphalt	1	3
Alignment Vertical:	01 - Good	2	0
Alignment Horizontal:	01 - Good	3	0
Restrictions:	No	4	0
		5	0
		6	0
BRIDGE PHOTOS			
			
SUBSTRUCTURE			
Condition:	P3 - Poor	Bearings:	I - Inapplicable
		Bearing Seat:	I - Inapplicable
Comments:	- East frame legs have medium disintegration caused from runoff. Water path also eroding fill from the concrete face/timber retaining wall joint, P3. - West frame legs have medium cracking and rust staining throughout. - South frame leg face has medium cracking with mild efflorescence throughout. Construction joint about 1m off bedrock on the west half of the structure has a medium-large spall. Southeast corner of the frame has a wide crack on an approximate 45 degree angle to the west, P1. - North frame leg face has mild scour near the midpoint of the structure, and medium cracking with efflorescence throughout. - Both downstream (east) concrete retaining structure footings have medium scour. Timber retaining structures in fair condition. - No retaining structures upstream.		
SUPERSTRUCTURE			
Condition:	P3 - Poor	Expansion Joints:	I - Inapplicable
	- East fascia has medium-severe disintegration at the roadway level due to runoff and medium horizontal cracking		

Comments: throughout the face. - West fascia has severe disintegration throughout. Frame leg to fascia transition has medium 45 degree cracks, P3. - Frame leg transition to bottom of deck (under structure) has medium-severe cracking with efflorescence throughout, P3, especially at structure exteriors, P1. Heavy leakage seen running down both frame leg faces, P3. - Bottom of deck has medium longitudinal cracks with efflorescence throughout.

DECK

Condition:	P3 - Poor	Curbs:	I - Inapplicable
Hand Rail:	F2 - Fair	Roadway Condition:	F2 - Fair
Approach Rail:	F2 - Fair		
Comments:	- Asphalt in fair condition. - Approach/exit rail in good condition, properties around structure impact its effectiveness. - No hazard markers, end blocks or curbs. - Deck cracked and leaking, indicated by efflorescence on bottom of deck, P3.		

HYDROLOGY

Water Velocity:	1 m/s	Ice Problem:	N - No Problem
Water Depth:	0.2 m	Scour Problem:	K - Known Problem
Waterway:	01 - Adequate	Debris Problem:	N - No Problem
Comments:	- Mild scour issues under frame legs and retaining structure footings. Bedrock grade steep through structure.		

REPLACEMENT/REHABILITATION

Next Rehab. Date:		Replacement Year:	2024
Antic. Rehab. Cost:	\$REPLACE	Replacement Cost:	\$1,000,000
Recommendations:	- Replace structure. Replacement has to be cast in place due to bedrock geometry below.		

OBSERVATIONS

Overall Condition:	P3 - Poor	Requires Further Inspection:	No
Additional Observations:	- Replace within 3 years. - Hazards, mild traffic, structure on a horizontal curve, steep slopes and slippery bedrock travelling under the structure.		

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