

		GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Infrastructure		BRIDGE INSPECTION REPORT B09052023-5	
Date: 8/28/2023		Inspected By: Darrell Avery		Category: Eng. - Engineering	
BRIDGE INFORMATION					
Site:		2-143 - CHAPEL ARM BRIDGE NO.3 - R201			
SUBSTRUCTURE					
Condition:	P3 - Poor	Bearings:	I - Inapplicable		
		Bearing Seat:	I - Inapplicable		
Comments:	Previous inspection - 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. New inspection - Abut. #2 right crib retaining wall structure separating from structure & loosing fill at end.				
SUPERSTRUCTURE					
Condition:	P3 - Poor	Expansion Joints:	I - Inapplicable		
Comments:	Previous inspection - East fascia has medium-severe disintegration at the roadway level due to runoff and medium horizontal cracking 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:	F1 - Fair	Roadway Condition:	F2 - Fair		
Approach Rail:	F2 - Fair				
Comments:	Previous inspection - 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. New inspection - Right bridge guiderail post dislodged from structure.				
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:	Previous inspection - 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:	Previous inspection - 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:	Previous inspection - Replace within 3 years. - Hazards, mild traffic, structure on a horizontal curve, steep slopes and slippery bedrock travelling under the structure.		

Department of Transportation and Infrastructure, Government of Newfoundland and Labrador 2024.