GOVERNMENT OF
NEWFOUNDLAND
AND LABRADOR
Department of Transportation and Infrastructure

BRIDGE INSPECTION REPORT
B02262025-1

Date: 2/19/2025 **Inspected By:** T Upshall / M Button **Category:** Eng. - Engineering

BRIDGE INFORMATION

Site: 1-301 - CLAM RIVER BRIDGE - R91

SUBSTRUCTURE

Condition: P1 - Poor
Bearings: I - Inapplicable
Bearing Seat: P1 - Poor

Comments: - Structure built in two roughly identical halves. Original structure accommodated a one lane roadway with an extension added to accommodate two lanes of traffic around 1985. - Both upstream abutments and pier have medium map cracking throughout with severe efflorescence. - South abutment has a wide vertical crack near the extension joint. - The upstream abutments and pier bearing seats have severe efflorescent material leaching through the bearing area and heavily staining all abutment and pier faces. - Both downstream abutments and pier in fair condition. - The downstream abutments and pier bearing seats have light efflorescent material leaching through the bearing area. Northwest abutment exterior bearing area has small spalls. - Pier nose has very severe disintegration, P1. Pier tail in has no significant visible defects, F1. - Deck bearing concrete on abutments and piers poor near the pier nose with widespread disintegration and cracking as noted above. F1 remainder. - Overall Substructure - P1 Upstream & F1 Downstream.

SUPERSTRUCTURE

Condition: P1 - Poor
Expansion Joints: P - Poor

Comments: - Upstream deck soffit on both spans have medium width map cracks throughout with severe to very severe efflorescence, P1. - Upstream deck fascia in poor condition with medium cracks and severe efflorescence throughout, P1. - Downstream deck soffit has widespread honeycombs with large boulders visible, F1 to P3. - Downstream deck fascia has 2 new cracks with light efflorescence since last inspection on the northwest corner, F2 to F1. - All structure extension joints and expansion gap over the pier are disintegrating and have very severe efflorescence leaching through. Joints have both water icicles and calcite stalactites formed along the joints. - Overall Superstructure - P1 Upstream & F1 Downstream.

DECK

Condition: P1 - Poor
Curbs: I - Inapplicable
Hand Rail: F1 - Fair
Roadway Condition: U - Uninspectable
Approach Rail: F2 - Fair

Comments: - Exposed concrete deck not inspectable due to snow cover. Carrying forward notes from previous inspection: "- Exposed concrete deck covered with sporadic gravels. - Water ponding on the northwest corner. - Possible exposed rebar, however, cannot be certain due to the abundance of gravel. Severe potholes on the southwest corner of the deck. - Bridge extension joints open with spalled edges. Joints leaching very severe efflorescent material below. " - No visible constructed curb on either side of the bridge. Structure rail appears to be deck mounted. - Structure rails are the three rail aluminum system. Downstream rails appear to have a sag. Various rails have dents and scrapes throughout. Various missing end caps, F1 to P3. - Approach rail/guiderail has no significant defects. Guiderail not of type "Guiderail Structures". - One of four hazard markers are missing. - Overgrowth noted on previous inspection around approach/exit rails. - Southeast end block impacted and is tipped/spalled away from the curb, P. Remaining end blocks smaller than current specification but are generally defect free, F1. - Bridge approach/exit is a gravel road and snow/ice covered at the time of inspection, not inspectable but has a smooth riding surface, F2.

HYDROLOGY

Water Velocity: < 1 **m/s**
Ice Problem: P - Possible Problem

Water Depth:	~1 **m**	**Scour Problem:**	P - Possible Problem
Waterway:	01 - Adequate	**Debris Problem:**	N - No Problem
Comments:	- South span has shallower water than the north. Scour could not be checked due to river ice.		

REPLACEMENT/REHABILITATION

Next Rehab. Date:		**Replacement Year:**	2030
Antic. Rehab. Cost:	$N/A	**Replacement Cost:**	$2,000,000
Recommendations:	- Replace upstream pier, abutments & deck. Use downstream half for one way traffic. Downstream half may have 35-40 years of service life remaining. - Downstream Half & Joint: Complete various concrete repairs on the abutments, deck soffit & deck top. - Install expansion joints – asphalt plug or complete semi-integral conversion. - Waterproof and protect. Consider asphalt on bridge deck only? - Install curbs on new structure and on older downstream. - Replace structure railings.		

OBSERVATIONS

Overall Condition:	P1 - Poor	**Requires Further Inspection:**	No
Additional Observations:	- P1 Upstream, F2 to F1 Downstream. - Replace upstream half within 5 years.		