

	GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Infrastructure	BRIDGE INSPECTION REPORT B11162021-1	
Date: 10/19/2021	Inspected By: Mike Button	Category: Office - Bridge Office	
BRIDGE INFORMATION			
Site:	1-037 - HEART'S DESIRE TO WINTERTON BRIDGES		
Route:		Overall Length:	7 m
Year Built:	1960	Est: No	Overall Width: 9.9 m
Year Last Rehab.:	1975	Est: Yes	Roadway Width: 9.2 m
Region:	AVALON PENINSULA		Sidewalk Width: 0 m
Jurisdiction:	Provincial		Clearance to R.D. or N.W.L.: 1.5 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:	01 - Aluminum Rail		<u>Span No.:</u> <u>Length</u> <u>Span No.:</u> <u>Length</u>
Roadway Surface:	02 - Asphalt		1 3.3 4 0
Alignment Vertical:	01 - Good		2 0 5 0
Alignment Horizontal:	02 - Adequate		3 0 6 0
Restrictions:	No		
BRIDGE PHOTOS			
			
SUBSTRUCTURE			
Condition:	F1 - Fair	Bearings:	U - Uninspectable
		Bearing Seat:	P3 - Poor
Comments:	- All exterior bearing seats, abutment corners and the adjacent area of the wingwalls have mild spalling and moderate to severe cracking with efflorescence, P3. The northeast bearing seat has concrete disintegrated to the edge of the double tee, monitor area on next inspection for progression, P3. Severe to extreme efflorescent leakage coming from the bearing seat area and has deposited over the east abutment face. Light to medium efflorescent leakage coming from the bearing seat area and falling down over the west abutment face. - Both abutment faces have mild erosion at the waterline, F1.		
SUPERSTRUCTURE			
Condition:	P3 - Poor	Expansion Joints:	P1 - Poor
Comments:	- No clear access under the deck due to high water levels. Some double tee joints on the north side (bridge super elevated to this side) of the structure are leaking with efflorescent stalactite deposits, P3. The south side double tee joints are in fair condition, F1. Double tee bearing blocks have severe cracking with efflorescence at the mid-		

point over the east abutment, P3. Remainder of double tees in fair condition with some exposed stirrups due to low cover, F1.

DECK

Condition:	P3 - Poor	Curbs:	P3 - Poor
Hand Rail:	F2 - Fair	Roadway Condition:	F1 - Fair
Approach Rail:	F1 - Fair		
Comments:	- Guide rail in fair condition with some split posts, F1. No extra energy dampening posts prior to structure. Northwest hazard marker missing, rest are in place. No end blocks. - Asphalt in fair condition with a wide transverse crack over the expansion joint, F1. - Structure handrail in fair condition, F2. Mild to medium sand/gravel build up against the curbs with vegetation growth, P3. - South fascia/curb has mild map cracking with efflorescence across the face, F1. - North exterior curb/deck joint to the double tees has severe disintegration and has created small long void over most of the face. Deck is super elevated towards the north and water/salts appear to have been draining through the void, P3. - No access under the structure due to high water levels however, efflorescent leakage was seen between several double tee precast sections on the north side, indicating the deck has ongoing disintegration and is allowing the penetration of water/road salts through the concrete, P3.		

HYDROLOGY

Water Velocity:	0.2 u/s 1 d/s m/s	Ice Problem:	N - No Problem
Water Depth:	1.5m u/s 0.5m d/s m	Scour Problem:	P - Possible Problem
Waterway:	02 - InAdequate	Debris Problem:	K - Known Problem
Comments:	- Beaver dam directly under the structure, pooling water upstream. Gabion baskets on the upstream side in fair condition.		

REPLACEMENT/REHABILITATION

Next Rehab. Date:	2024	Replacement Year:	2030
Antic. Rehab. Cost:	\$60,000	Replacement Cost:	\$800,000
Recommendations:	- Remove sand/gravel/vegetation from curbs. Install hazard markers. Remove the beaver dam under the structure. Repair the exterior bearing seats, double tee bearing blocks and abutment corners. Repair double tee bearing blocks under the structure over the east abutment. Replace expansion joints. Evaluate for a replacement with box culvert.		

OBSERVATIONS

Overall Condition:	P3 - Poor	Requires Further Inspection:	No
Additional Observations:	- Hazards; mild traffic and deep water on the upstream side.		

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