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|  | GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Infrastructure | BRIDGE INSPECTION REPORT B08062021-1 | |
| Date: 8/3/2021 | Inspected By: Mike Button | Category: Office - Bridge Office | |
| BRIDGE INFORMATION | | | |
| Site: | 1-047 - WITLESS BAY BROOK BRIDGE | | |
| Route: | 10 | Overall Length: | 20 m |
| Year Built: | 1966 | Est: No | Overall Width: 9.4 m |
| Year Last Rehab.: | | Est: No | Roadway Width: 7 m |
| Region: | AVALON PENINSULA | Sidewalk Width: | 1.2 m |
| Jurisdiction: | Provincial | Clearance to R.D. or N.W.L.: | 0 m |
| Type of Structure: | 02 - Double Tee | Max Depth of N.W.L.: | 0 m |
| Purpose of Structure: | 03 - Over Navigable Waters | Spans: | |
| Type of Handrail: | 02 - Concrete Rail | Span No.: | Length |
| Roadway Surface: | 02 - Asphalt | 1 | 9.5 |
| Alignment Vertical: | 01 - Good | 2 | 0 |
| Alignment Horizontal: | 01 - Good | 3 | 0 |
| Restrictions: | No | 6 | 0 |
| BRIDGE PHOTOS | | | |
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| SUBSTRUCTURE | | | |
| Condition: | P3 - Poor | Bearings: | U - Uninspectable |
| | | Bearing Seat: | P3 - Poor |
| Comments: | Substructure - All abutment wingwalls showing medium alligator cracking with efflorescence. - Southwest retaining wall has moderate scour/undermining with a ~0.5m x 2m section of concrete missing the most upstream corner at bedrock level. - Northwest timber retaining wall deteriorating. Undermining of the northwest abutment wingwall visible down the whole slope. - Exterior creep blocks severely disintegrated with cracks, vegetation, and exposed rebar, P3. - Interior creep blocks appear in better condition, no great view for inspection but look to be substantially better, F1. - Both abutments have moderate to severe concrete deterioration to the corner at waterline level. Moderate horizontal and vertical cracking across the rest of the face, P3. | | |
| SUPERSTRUCTURE | | | |
| Condition: | P3 - Poor | Expansion Joints: | P3 - Poor |
| Comments: | - Expansion joints not continued through curbs to exterior of structure. This has caused large spalls/deterioration of exterior creep blocks and double tees. - First and second exterior double tees on both the upstream and | | |

downstream sides have medium spalling. Stressing cables are visible in several locations with exposed rebar. Cables and rebar just starting to corrode. Exterior double tees, P1. Stirrups showing moderately on all double tees, P3.

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| Condition: | P3 - Poor | Curbs: | P3 - Poor |
| Hand Rail: | P3 - Poor | Roadway Condition: | F1 - Fair |
| Approach Rail: | P3 - Poor | | |
| Comments: | - Approach rails not connect to end blocks. Several posts missing/not enough installed, P3. - Concrete guard rails on structure have medium spalls, exposing rebar, P3. On the southwest corner, the concrete guard rail post has deteriorated and lost connection with the structure, P1. - End blocks have mild alligator cracking. - No hazard markers. - Asphalt surface has some pot holes but in good condition. - Deck drains clear. | | |

HYDROLOGY

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|------------------------|---|------------------------|----------------------|
| Water Velocity: | 1 m/s | Ice Problem: | P - Possible Problem |
| Water Depth: | 2 m | Scour Problem: | K - Known Problem |
| Waterway: | 02 - InAdequate | Debris Problem: | N - No Problem |
| Comments: | Marked inadequate because structure width has not accounted for rip-rap around abutments. The lack of rip-rap has caused scour issues with the abutments and wingwalls. | | |

REPLACEMENT/REHABILITATION

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| Next Rehab. Date: | | Replacement Year: | 2026 |
| Antic. Rehab. Cost: | \$ | Replacement Cost: | \$2000000 |
| Recommendations: | - Replace Structure | | |

OBSERVATIONS

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|---------------------------------|--------------------------|-------------------------------------|-----|
| Overall Condition: | P3 - Poor | Requires Further Inspection: | Yes |
| Additional Observations: | - Hazards, mild traffic. | | |

LEGEND:

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|------------------------------------|------------|--------------------------------|-----------------------------|------------------------------|
| 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