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|  | GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Infrastructure | BRIDGE INSPECTION REPORT B11122021-1 | |
| Date: 10/19/2021 | Inspected By: Mike Button | Category: Office - Bridge Office | |
| BRIDGE INFORMATION | | | |
| Site: | 1-083 - WESTERN BAY BROOK BRIDGE NO.1 | | |
| Route: | | Overall Length: | 25.8 m |
| Year Built: | 1970 | Est: No | Overall Width: 10.8 m |
| Year Last Rehab.: | | Est: No | Roadway Width: 6.3 m |
| Region: | AVALON PENINSULA | Sidewalk Width: | 0 m |
| Jurisdiction: | Provincial | Clearance to R.D. or N.W.L.: | 6 m |
| Type of Structure: | 02 - Double Tee | Max Depth of N.W.L.: | 1 m |
| Purpose of Structure: | 04 - Over Non-Navigable Waters | Spans: | |
| Type of Handrail: | 04 - Steel Rail | <u>Span No.:</u> | <u>Length</u> |
| Roadway Surface: | 02 - Asphalt | 1 | 10.6 |
| Alignment Vertical: | 01 - Good | 2 | 0 |
| Alignment Horizontal: | 02 - Adequate | 3 | 0 |
| Restrictions: | No | 6 | 0 |
| BRIDGE PHOTOS | | | |
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| SUBSTRUCTURE | | | |
| Condition: | F2 - Fair | Bearings: | U - Uninspectable |
| | | Bearing Seat: | F1 - Fair |
| Comments: | - South abutment has light vertical cracks with efflorescence on the south exterior corners. Light vertical cracking evident throughout the abutment face. Water slamming into the southwest corner of the south footing, suspect scour in this location. Area needs rip-rap. - North abutment has light scour and concrete disintegration on the northeast corner of the structure. Area is currently out of water. - All wingwalls in fair condition, northeast wingwall has mild map cracking. - Bearing seats showing no signs of spalling or leakage. | | |
| SUPERSTRUCTURE | | | |
| Condition: | F1 - Fair | Expansion Joints: | F1 - Fair |
| Comments: | - South side of bridge is fixed, and the north is the expansion end. - No visible leakage on abutment faces, asphalt is cracked above on both the fixed and expansion ends, F1. - Double tees in fair condition, stirrups exposed on all double tees due to low cover. In some locations, rebar is also exposed on the bottom of the double tee deck pre cast deck sections, F1. No leakage seen between pre-cast sections, indicating waterproofing and | | |

deck concrete above still in good condition.

DECK

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| Condition: | F1 - Fair | Curbs: | F1 - Fair |
| Hand Rail: | P3 - Poor | Roadway Condition: | F1 - Fair |
| Approach Rail: | F1 - Fair | | |
| Comments: | - Asphalt has cracks over approaches, F1. - Guiderail has some split posts, rails are not connected to end blocks and all hazard markers are in place. No additional energy dampening posts at end blocks, F1. - Interior curbs have minor cracks throughout, especially around expansion joints, F1. - Exterior curb/fascia in also in fair condition. No chaulking over curb joint to structure. The east side has mild cracking with efflorescence near mid span. - Handrails have medium to severe corrosion throughout some minor denting/bends. Ends of rails are encased in end block concrete with rusty water slurry leaking from the encasement connection. Some rails are corroded through in this location P3. Some posts have also corroded through near the bottoms, P3. | | |

HYDROLOGY

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| Water Velocity: | 0.4 m/s | Ice Problem: | N - No Problem |
| Water Depth: | 0.8 m | Scour Problem: | P - Possible Problem |
| Waterway: | 02 - InAdequate | Debris Problem: | N - No Problem |
| Comments: | - Water is slamming into southwest corner of the south footing, scour is suspected. Structure is misaligned to river and seems narrow for the flow rate. | | |

REPLACEMENT/REHABILITATION

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| Next Rehab. Date: | 2024 | Replacement Year: | 2035 |
| Antic. Rehab. Cost: | \$30,000 | Replacement Cost: | \$1,300,000 |
| Recommendations: | - Replace handrail and pour back areas where handrails are to be removed from end blocks. Place rip-rap on southwest corner, river slamming into area. Remove road sand/gravel from curbs. Reseal/chaulk curbs over the bearing seats. | | |

OBSERVATIONS

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| Overall Condition: | F1 - Fair | Requires Further Inspection: | No |
| Additional Observations: | - Hazards, medium traffic and steep slopes. | | |

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. |
| 2 - *Fair - [discontinued code]. | F1 - Fair. | U - Uninspectable. | P - Possible Problem. |
| 3 - *Poor - [discontinued code]. | P3 - Poor. | I - Inapplicable. | K - Known Problem. |
| 4 - *Unsafe - [discontinued code]. | P1 - Poor. | | NA - Not Applicable. |
| G - Good. | P - Poor. | | 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