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|  | GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Infrastructure | BRIDGE INSPECTION REPORT B11222021-2 | |
| Date: 10/22/2021 | Inspected By: Chantel Finn | Category: Office - Bridge Office | |
| BRIDGE INFORMATION | | | |
| Site: | 1-019 - SMELT RIVER BRIDGE, PLACENTIA | | |
| Route: | 91 | Overall Length: | 11.5 m |
| Year Built: | 1966 | Est: No | Overall Width: 9.3 m |
| Year Last Rehab.: | 1975 | Est: No | Roadway Width: 8.8 m |
| Region: | AVALON PENINSULA | | Sidewalk Width: 0.25 m |
| Jurisdiction: | Provincial | | Clearance to R.D. or N.W.L.: 1.7 m |
| Type of Structure: | 04 - Rigid Frame | | Max Depth of N.W.L.: 0.3 m |
| Purpose of Structure: | 04 - Over Non-Navigable Waters | | Spans: |
| Type of Handrail: | 02 - Concrete Rail | | <u>Span No.:</u> <u>Length</u> <u>Span No.:</u> <u>Length</u> |
| Roadway Surface: | 02 - Asphalt | 1 | 4 4 0 |
| Alignment Vertical: | 01 - Good | 2 | 0 5 0 |
| Alignment Horizontal: | 01 - Good | 3 | 0 6 0 |
| Restrictions: | No | | |
| BRIDGE PHOTOS | | | |
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| SUBSTRUCTURE | | | |
| Condition: | F1 - Fair | Bearings: | U - Uninspectable |
| | | Bearing Seat: | U - Uninspectable |
| Comments: | P3 - Abutment corners/wingwalls, F1 - remainder - Light/medium scour under some areas of footings - Mild map cracking in east footing - Medium wide cracks with severe efflor. deposits in all 4 wingwalls. - Medium to severe alligator cracking and vertical cracks in abutment corners with medium/severe efflor. deposits - Wide vertical crack at the mid transverse point of the east abutment | | |
| SUPERSTRUCTURE | | | |
| Condition: | F1 - Fair | Expansion Joints: | F1 - Fair |
| Comments: | P3 - Exterior curb beams, F1 - Remainder - Numerous medium cracks with heavy efflor. deposits in both exterior curb beams - Expansion gaps in curbs have no chaulking, northeast gap is visibly leaking - Deck bottom in good condition (F2) | | |
| DECK | | | |

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|-----------------------|--|---------------------------|-----------|
| Condition: | F1 - Fair | Curbs: | F1 - Fair |
| Hand Rail: | P1 - Poor | Roadway Condition: | P3 - Poor |
| Approach Rail: | P3 - Poor | | |
| Comments: | - Some narrow cracks in deck soffit with light efflor. deposits - Severe damage/disintegration to Northeast and Northwest endblocks. Some damage to Southwest endblock with some concrete missing. SE endblock has cracks with efflor. deposits - Bend in guiderail at South corner, guiderail is not connected to endblocks - Existing approach and exit rail has damage with posts tipping out and rotting, numerous posts snapped - No hazard markers at structure corners. - Concrete handrails are damaged with sections missing. Numerous horizontal cracks in concrete handrail. - Asphalt in okay condition, some small/medium potholes along center of road and deck approaches. - Missing energy absorbing posts in guiderail - Vegetation growth on curbs | | |

HYDROLOGY

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|------------------------|--|------------------------|----------------------|
| Water Velocity: | 0.4 m/s | Ice Problem: | N - No Problem |
| Water Depth: | 0.4 m | Scour Problem: | P - Possible Problem |
| Waterway: | 01 - Adequate | Debris Problem: | N - No Problem |
| Comments: | - Some slope erosion on all 4 corners (especially NW corner). - Hydraulic rip rap has shifted. | | |

REPLACEMENT/REHABILITATION

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| Next Rehab. Date: | 2023 | Replacement Year: | 2035 |
| Antic. Rehab. Cost: | \$180000 | Replacement Cost: | \$1400000 |
| Recommendations: | - Replace concrete handrails and endblocks. - Install new approach and exit rail c/w hazard markers. - Fix remaining concrete defects and scour under footings. - Resurface over deck and approaches. | | |

OBSERVATIONS

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| Overall Condition: | P3 - Poor | Requires Further Inspection: | Yes |
| Additional Observations: | P - Downstream endblocks and concrete handrail. P1 - Upstream endblocks and concrete handrails, approach and exit rail and scour under footings. F1 - Remainder. | | |

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