

GOVERNMENT OF **NEWFOUNDLAND** AND LABRADOR Department of Transportation and Infrastructure

## **BRIDGE INSPECTION REPORT**

Date: 1/30/2020 Inspected By: Alex Ford Category: Eng. - Engineering

## **BRIDGE INFORMATION**

Site: 2-020 - MARYSTOWN UNDERPASS

Route: 220A

1969 Year Built: Est: No 2005 Est: No Year Last Rehab.:

Region: **CENTRAL EAST** 

Jurisdiction: Provincial

Type of Structure: 01 - AASH to Girder

Purpose of Structure: 01 - Highway Grade Separation

01 - Aluminum Rail Type of Handrail: 02 - Asphalt Roadway Surface: 01 - Good

Alignment Vertical: 01 - Good Alignment Horizontal:

Yes Restrictions:

Posted clearance 4.8 metres. **Describe Restrictions:** 

## B01302020-4

**Overall Length:** 42.7 m

10.8 m **Overall Width:** 9.4 **m** Roadway Width:

Sidewalk Width: 1.1 m

Clearance to R.D. or

N.W.L.:

Max Depth of N.W.L.: 0 **m** 

Spans:

| Span No.: | <u>Length</u> | Span No.: | <u>Length</u> |
|-----------|---------------|-----------|---------------|
| 1         | 20            | 4         | 0             |
| 2         | 0             | 5         | 0             |
| 3         | 0             | 6         | 0             |

4.8 m

## **BRIDGE PHOTOS**















**SUBSTRUCTURE** 

**Condition:** F2 - Fair **Bearings:** P3 - Poor

**Bearing Seat:** F2 - Fair

Comments: Concrete abutments, piers and wingwalls. Some disintegration of abument corners from leaking joints, minor

cracking. 2 piers with three columns each and pier caps, some light cracking and spalling of column footings, pier one cap has cracking and delamination under girder 2,3,6. Bearing pads are squat and have some cracking. Significant debris on bearing seats of abutments, especially abutment one left side where the fill is over the bearing seat and against the girder. Concrete slope paving is heaved, cracked and has vegetation growing

through.

**SUPERSTRUCTURE** 

**Condition:** F2 - Fair **Expansion Joints:** P1 - Poor

Comments: 7 AASHTO girders each span. Backwall abutment two has significant disintegration from leaking joint, abutment

one backwall cant be seen, suspected the same. Asphalt plug joints leaking heavily. Formwork left on diaphram

abutment one.

**DECK** 

**Condition:** P3 - Poor **Curbs:** F2 - Fair

**Hand Rail:** F2 - Fair **Roadway Condition:** F2 - Fair

Approach Rail: P - Poor

Comments: Concrete deck with asphalt wearing surface, some pothole patching has been done but more holes are now

present. Underside of deck has cracking, disintegration and efflorescence, worse around old drain holes which are now plugged, active leaking visible throughout the deck. 4 rail aluminum hand rail with concrete endblocks. Approach rail abutment two left only - leaned, too high, missing bolts and one section has been removed from the middle. Curbs have face abrasion and light impact spalls. Sidewalk both sides. there is buildup of sand on the

deck. Hazard markers and clearance signs are old and worn.

**HYDROLOGY** 

Water Velocity:

n/a m/s Ice Problem: NA - Not Applicable

Water Depth: n/a m Scour Problem: NA - Not Applicable

Waterway: 03 - Not Applicable Debris Problem: NA - Not Applicable

**Comments:** Underpass Structure.

REPLACEMENT/REHABILITATION

Next Rehab. Date: Replacement Year:

Antic. Rehab. Cost: \$0 Replacement Cost: \$0

Recommendations: Rehab structure. Latex repairs, expansion joints, deck overlay, waterproof, asphalt, new guide rail, clean debris

from bearing seats. Replace hazard markers and clearance signs.

**OBSERVATIONS** 

Overall Condition: P3 - Poor Requires Further No

| Inspection:  |   |  |  |  |  |  |
|--|---|--|--|--|--|--|
| Additional Observations: Cable attached to right side.   |   |  |  |  |  |  |
| LEGEND:  Condition Definitions:  1 - *Good - [discontinued code]. 2 - *Fair - [discontinued code]. 3 - *Poor - [discontinued code]. 4 - *Unsafe - [discontinued code]. G - Good.  PHOTO GUIDELINES: Inspection Photos:  Please provide photos using guidelines below Any nem which inspector reers sno All items noted above as being P3, F Any evidence of known ice, scour, of | F2 - Fair.<br>F1 - Fair.<br>P3 - Poor.<br>P1 - Poor.<br>P - Poor.<br>In ge documented by pr<br>P1 P, or C | C - Unsafe (Closed to Public).<br>U - Uninspectable.<br>I - Inapplicable.<br>notograpn | Problem Definitions: N - No Problem. P - Possible Problem. K - Known Problem. NA - Not Applicable. | Category Definitions:<br>Maint Maintenance.<br>Eng Engineering.<br>Office - Bridge Office. |  |  |
| INSPECTION PHOTOS  |   |  |  |  |  |  |

Department of Transportation and Infrastructure, Government of Newfoundland and Labrador 2021.