| Newfoundland Labrador | GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Infrastructure | | BRIDGE INSPECTION REPORT B12082021-1 | | | | | |
|--------------------------|---|---------------------------|---|----------------------------------|------------|--|--------|--|
| Date: 10/29/2021 | Inspected By: Mike Button | | | Category: Office - Bridge Office | | | | |
| BRIDGE INFORMATION | | | | | | | | |
| Site: | 5-074 - CHURCHILL RIVE | R BRIDGE | | | | | | |
| Route: | 500 | | | Overall Leng | th: | 320 m | | |
| Year Built: | 2006 | Est: No | | Overall Widt | h: | 9.5 m | | |
| Year Last Rehab.: | | Est: No | | Roadway Wi | dth: | 7.35 m | | |
| Region: | LABRADOR | : | Sidewalk Width: | | 0 m | | | |
| Jurisdiction: | Provincial | | | Clearance to R.D. or N.W.L.: | | 6.5 m | | |
| Type of Structure: | 10 - Callender-Hamilton or | Other Stress Truss Bridge | | Max Depth of N.W.L.: | | 25 m | | |
| Purpose of Structure: | 03 - Over Navigable Water | : | Spans: | | | | | |
| Type of Handrail: | 06 - None | | | Span No.: | Length | Span No.: | Length | |
| Roadway Surface: | 04 - Steel | | | 1 | 120 | 4 | 0 | |
| Alignment Vertical: | 01 - Good | | | 2 | 120 | 5 | 0 | |
| Alignment Horizontal: | 01 - Good | | | 3 | 120 | 6 | 0 | |
| Restrictions: | No | | | | | | | |
| SUBSTRUCTURE | 10/30/2006 | | 10/30/2006 | the second second | 4 | 10000000000000000000000000000000000000 | | |
| Condition: | F2 - Fair Bearings: | | • | F2 - F | | | | |
| | | Bearings | | F2 - F | | | | |
| Comments: | - Both concrete piers appear in fair condition looking through the deck grating and looking from the abutment level with binoculars. Assumed condition of sub-surface concrete North abutment bearing seat has a small spall on the northwest side. Grout pads under pot bearings cracking and forming small spalls. North abutment concrete and wingwalls in fair condition South abutment bearing seat covered in roadway sand. Concrete in fair condition. | | | | | | | |
| SUPERSTRUCTURE | | | | | | | | |
| Condition: | G - Good | Expansio | on Joints: | G - G | ood | | | |
| Comments: | - Expansion joint slip plates appear to be in working order The top of two handrail posts were impacted/twisted on the northwest corner of the bridge. This caused the associated stringers to twist below as well 1 nut loose on the top chord splice plate near the west side 10th node from the north abutment 1 bolt/nut missing from the horizontal cross bracing in bay 5 from the north abutment 1 bolt/nut missing at bottom chord node 16 on the | | | | | | | |

| guiderail ends are heavily damaged, are connected to end to blocks, and are complete with hazard markers End block jeraffiti Structure handrail/post damaged on the northwest twisted Steel deck grating has isolated locations of damage heavy map cracking on the south exit. HYDROLOGY Water Velocity: 1 m/s Ice Problem: Water Depth: Deep m Scour Problem Waterway: 01 - Adequate Obscourd rip-rap before tapering back off to the river. South p it to good rip-rap before tapering back off to the river. South p seen all around the pier. REPLACEMENT/REHABILITATION Next Rehab. Date: 2022 Replacement C Replacement C Replacement C OBSERVATIONS Overall Condition: G - Good | west side from the south abutment Inspected all visible elements of the "through truss" bridge walking across the deck looking up at the truss members and top chord, looking below through the decking at the girder/stringer connections, looking over the handrails at the bottom chords and by using binoculars from below at the abutment levels. All gusset plates/batten plates/splice plates/bolts/nuts, stringer to girder connections, and the various types of members used were found to be in good condition unless otherwise noted above. | | | | | | |
|--|---|--|--|--|--|--|--|
| Hand Rail: G - Good Roadway Cond Approach Rail: P3 - Poor Comments: - Approach/exit guiderail has lost corrugation in several sect guiderail ends are heavily damaged, are connected to end the blocks, and are complete with hazard markers End block j graffiti Structure handrail/post damaged on the northwest twisted Steel deck grating has isolated locations of damage heavy map cracking on the south exit. HYDROLOGY Vater Velocity: 1 m/s Ice Problem: Water Velocity: 1 m/s Ice Problem: Water Depth: Deep m Scour Problem Waterway: 01 - Adequate Debris Problem: Comments: - North pier has a trench in the rip-rap around most of the pi to good rip-rap before tapering back off to the river. South p seen all around the pier. REPLACEMENT/REHABILITATION Next Rehab. Date: 2022 Replacement C Replacement C Recommendations: - Replace sections of guiderail as required Replace/tighte Superstructure section of the report Remove sand from section Andrail posts/stringers. OBSERVATIONS G - Good Requires Furth Inspection: Additional Observations: - Hazards, heavy traffic, slopes and traversing rip-rap. Inspectron: * Proor : Insection Mind codel; - Geood Muter codel; - Secord Heaver Superstructure section of the report Replaceble. - Hazards, heavy traf | | | | | | | |
| Approach Rail: P3 - Poor Comments: - Approach/exit guiderail has lost corrugation in several sect guiderail ends are heavily damaged, are connected to end to blocks, and are complete with hazard markers End block j graffiti Structure handrail/post damaged on the northwest twisted Steel deck grating has isolated locations of damage heavy map cracking on the south exit. HYDROLOGY Water Velocity: 1 m/s Ice Problem: Water Depth: Deep m Scour Problem Waterway: 01 - Adequate Ogod rip-rap before tapering back off to the river. South p seen all around the pier. REPLACEMENT/REHABILITATION Next Rehab. Date: 2022 Replacement C Recommendations: - Replace sections of guiderail as required Replace/fighter Superstructure section of the report Remove sand from so handrail posts/stringers. OBSERVATIONS G - Good Overall Condition: G - Good CEGND: - Hazards, heavy traffic, slopes and traversing rip-rap. Inspection: Contraster (discontinued code]. - Hazards, heavy traffic, P - Poor. P - Poor. P - Poor. P - Poor. P - Poor. | I - Inapplicable | | | | | | |
| Comments: - Approach/exit guiderail has lost corrugation in several sect guiderail ends are heavily damaged, are connected to end b blocks, and are complete with hazard markers End block j graffiti Structure handrail/post damaged on the northwest twisted Steel deck grating has isolated locations of damage heavy map cracking on the south exit. HYDROLOGY HYDROLOGY Water Velocity: 1 m/s Image: Comments: 1 m/s Image: Comments: - North pier has a trench in the rip-rap around most of the pi to good rip-rap before tapering back off to the river. South p seen all around the pier. REPLACEMENT/REHABILITATION Next Rehab. Date: 2022 Replacement C Replacement C Recommendations: - Replace sections of guiderail as required Replace/tighter Superstructure section of the report Remove sand from sc handrail posts/stringers. OBSERVATIONS Overall Condition: G - Good Requires Furth Inspection: Control needed for inspection. - Hazards, heavy traffic, slopes and traversing rip-rap. Inspe Traffic control needed for inspection. EGEND: - Hazards, heavy traffic, slopes and traversing rip-rap. Inspe Traffic control needed for inspection. EGEND: - Hazards, heavy traffic, slopes and traversing rip-rap. Inspe Traffic control needed for inspection. EGEND: - Hazards, heavy traffic, slopes and traversing rip-rap. Inspe Traffic control needed for inspection. | lition: F1 - Fair | | | | | | |
| guiderail ends are heavily damaged, are connected to end the blocks, and are complete with hazard markers End block is graffiti Structure handrail/post damaged on the northwest twisted Steel deck grating has isolated locations of damage heavy map cracking on the south exit. HYDROLOGY Im/s Ice Problem: Water Velocity: 1 m/s Ice Problem: Water Depth: Deep m Scour Problem Waterway: 01 - Adequate Debris Problem: Comments: - North pier has a trench in the rip-rap around most of the pi to good rip-rap before tapering back off to the river. South p seen all around the pier. REPLACEMENT/REHABILITATION Next Rehab. Date: 2022 Replacement Y Antic. Rehab. Cost: \$15,000 Replacement C Recommendations: - Replace sections of guiderail as required Replace/tighted Superstructure section of the report Remove sand from sc handrail posts/stringers. OBSERVATIONS Overall Condition: G - Good Requires Furth Inspection: T-frood - [discontinued code]. - Hazards, heavy traffic, slopes and traversing rip-rap. Inspection: Additional Observations: - Hazards, heavy traffic, slopes and traversing rip-rap. Inspection: F1 - Fair. U- Uninspectable. U- Uninspectable. - Traffic control needed for inspection. P - Poor. <td></td> | | | | | | | |
| Water Velocity: 1 m/s Ice Problem: Water Depth: Deep m Scour Problem Waterway: 01 - Adequate Debris Problem Comments: - North pier has a trench in the rip-rap around most of the pi to good rip-rap before tapering back off to the river. South p seen all around the pier. REPLACEMENT/REHABILITATION Next Rehab. Date: 2022 Replacement Y Antic. Rehab. Cost: \$15,000 Replacement C Recommendations: - Replace sections of guiderail as required Replace/tighter Superstructure section of the report Remove sand from so handrail posts/stringers. OBSERVATIONS Overall Condition: G - Good Requires Furthe Inspection: T-fic control needed for inspection. - Hazards, heavy traffic, slopes and traversing rip-rap. Inspection: Condition Definitions: - Hazards, heavy traffic, slopes and traversing rip-rap. Inspection of Giscontinued code], P3 - Poor. T-fic air. Y- Door. Y- Poor. PHOTO GUIDELINES: P- Poor. | - Approach/exit guiderail has lost corrugation in several sections, has several split posts and the south side guiderail ends are heavily damaged, are connected to end blocks, have collision dampening posts prior to end blocks, and are complete with hazard markers End block jersey barriers have light cracking and are covered in graffiti Structure handrail/post damaged on the northwest corner of the bridge. Top of post impacted and twisted Steel deck grating has isolated locations of damage No curbs Approach asphalt in fair condition, heavy map cracking on the south exit. | | | | | | |
| Water Depth: Deep m Scour Problem Waterway: 01 - Adequate Debris Problem Comments: - North pier has a trench in the rip-rap around most of the pi to good rip-rap before tapering back off to the river. South p seen all around the pier. REPLACEMENT/REHABILITATION Rescommendations: 2022 Replacement Y Antic. Rehab. Date: 2022 Replacement C Recommendations: - Replace sections of guiderail as required Replace/tightel Superstructure section of the report Remove sand from so handrail posts/stringers. OBSERVATIONS Overall Condition: G - Good Requires Furthuis Inspection: Additional Observations: - Hazards, heavy traffic, slopes and traversing rip-rap. Inspection: Inspection: 2 'Fair - filscontinued code]. F1 - Fair. C - Unsafe (Closed to Public): 1 - Inapplicable. 2 'Fair - Giscontinued code]. P3 - Poor. P- Poor. 1 - Inapplicable. 1 - Inapplicable. 3 - Poor - Idiscontinued code]. P3 - Poor. P- Poor. 1 - Inapplicable. 1 - Inapplicable. | | | | | | | |
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| to good rip-rap before tapering back off to the river. South p seen all around the pier. REPLACEMENT/REHABILITATION Next Rehab. Date: 2022 Replacement Y Antic. Rehab. Cost: \$15,000 Replacement C Recommendations: - Replace sections of guiderail as required Replace/tighter Superstructure section of the report Remove sand from so handrail posts/stringers. OBSERVATIONS Overall Condition: G - Good Requires Further Inspection: Additional Observations: - Hazards, heavy traffic, slopes and traversing rip-rap. Inspection: 1 "Good - [discontinued code]. F1 - Fair. U-unsafe (Closed to Public). 2 "Fair. [discontinued code]. F1 - Fair. U-Unsafe (Closed to Public). 3 "Poor - [discontinued code]. P3 - Poor. I- Inapplicable. 9 - Poor. P - Poor. P - Poor. | n: N - No Problem | | | | | | |
| Next Rehab. Date: 2022 Replacement Y Antic. Rehab. Cost: \$15,000 Replacement C Recommendations: - Replace sections of guiderail as required Replace/tighter Superstructure section of the report Remove sand from so handrail posts/stringers. OBSERVATIONS Overall Condition: G - Good Requires Further Inspection: Additional Observations: - Hazards, heavy traffic, slopes and traversing rip-rap. Inspection: T-Good - [discontinued code]. F2 - Fair. C - Unsafe (Closed to Public). 2 * Fair - [discontinued code]. F1 - Fair. U - Uninspectable. 3 * Poor - [discontinued code]. P3 - Poor. I - Inapplicable. 9HOTO GUIDELINES: nspection Photos: P1 - Poor. P - Poor. | - North pier has a trench in the rip-rap around most of the pier, water depth plunges in the trench coming back up to good rip-rap before tapering back off to the river. South pier has no visible surface rip-rap and vortex currents seen all around the pier. | | | | | | |
| Antic. Rehab. Cost: \$15,000 Replacement C Recommendations: - Replace sections of guiderail as required Replace/tighter Superstructure section of the report Remove sand from so handrail posts/stringers. - Replace sections of guiderail as required Replace/tighter OBSERVATIONS - Good Requires Further Overall Condition: G - Good Requires Further Additional Observations: - Hazards, heavy traffic, slopes and traversing rip-rap. Inspection: T-"Good - [discontinued code]. - Hazards, heavy traffic, slopes and traversing rip-rap. Inspection: 1-"Good - [discontinued code]. F1 - Fair. C - Unsafe (Closed to Public). 2 - 'Fair - [discontinued code]. F1 - Fair. U - Uninspectable. 3 - 'Poor - [discontinued code]. P1 - Poor. U - Uninspectable. 9 - Poor. P1 - Poor. P - Poor. PHOTO GUIDELINES: P - Poor. P - Poor. Notor Photos: Superstructure code P - Poor. | | | | | | | |
| Recommendations: - Replace sections of guiderail as required Replace/tighter Superstructure section of the report Remove sand from so handrail posts/stringers. OBSERVATIONS - Good Overall Condition: G - Good Additional Observations: - Hazards, heavy traffic, slopes and traversing rip-rap. Inspectratic control needed for inspection. EGEND: - Hazards, heavy traffic, slopes and traversing rip-rap. Inspectrations: 1 ^{- Good} - [discontinued code]. F2 - Fair. 2 - Fair - [discontinued code]. F1 - Fair. 3 - Poor - [discontinued code]. P3 - Poor. 4 - Unsafe - [discontinued code]. P1 - Poor. PHOTO GUIDELINES: P1 - Poor. Repuires in Photos: P1 - Poor. | 'ear: 2080 | | | | | | |
| Superstructure section of the report Remove sand from so handrail posts/stringers. OBSERVATIONS G - Good Requires Furthe Inspection: Additional Observations: - Hazards, heavy traffic, slopes and traversing rip-rap. Inspection: Additional Observations: - Hazards, heavy traffic, slopes and traversing rip-rap. Inspection: EGEND: - Unsafe (Closed to Public). 2 * Fair - [discontinued code]. F1 - Fair. 3 * Poor - [discontinued code]. P3 - Poor. 4 * Unsafe - [discontinued code]. P1 - Poor. 9 - Poor. P - Poor. PHOTO GUIDELINES: P - Poor. Repuises: P - Poor. | Cost: \$10,000,000 | | | | | | |
| Overall Condition: G - Good Requires Further Inspection: Additional Observations: - Hazards, heavy traffic, slopes and traversing rip-rap. Inspection: Additional Observations: - Hazards, heavy traffic, slopes and traversing rip-rap. Inspection. LEGEND: Traffic control needed for inspection. Condition Definitions: 1 - "Good - [discontinued code]. 1 - "Good - [discontinued code]. F1 - Fair. 2 - "Fair - [discontinued code]. F3 - Poor. 3 - "Poor - [discontinued code]. P1 - Poor. 4 - *Unsafe - [discontinued code]. P1 - Poor. PHOTO GUIDELINES: P - Poor. Inspection Photos: P - Poor. | - Replace sections of guiderail as required Replace/tighten bolts in various locations as indicated in Superstructure section of the report Remove sand from south bearing seat Consider replacing twisted handrail posts/stringers. | | | | | | |
| Additional Observations: - Hazards, heavy traffic, slopes and traversing rip-rap. Inspection: Traffic control needed for inspection. LEGEND: Condition Definitions: 1 - "Good - [discontinued code]. F1 - Fair. 2 - "Fair - [discontinued code]. F1 - Fair. 3 - "Poor. I - Inapplicable. 4 - "Unsafe - [discontinued code]. P3 - Poor. PHOTO GUIDELINES: P - Poor. Inspection Photos: P - Poor. | | | | | | | |
| Traffic control needed for inspection. LEGEND: Condition Definitions: 1 - *Good - [discontinued code]. 2 - *Fair - [discontinued code]. 3 - *Poor - [discontinued code]. 4 - *Unsafe - [discontinued code]. P1 - Poor. G - Good. PHOTO GUIDELINES: nspection Photos: | ner No | | | | | | |
| Condition Definitions: F2 - Fair. C - Unsafe (Closed to Public). 2 - *Fair - [discontinued code]. F1 - Fair. U - Uninspectable. 3 - *Poor - [discontinued code]. P3 - Poor. I - Inapplicable. 4 - *Unsafe - [discontinued code]. P1 - Poor. P - Poor. PHOTO GUIDELINES: P - Poots. P - Poots. | - Hazards, heavy traffic, slopes and traversing rip-rap. Inspection limited below structure with use of binoculars. Traffic control needed for inspection. | | | | | | |
| Any evidence of known ice, scour, debris, waterway problems | Problem Definitions: Category Definitions: N - No Problem. Maint - Maintenance. P - Possible Problem. Eng Engineering. K - Known Problem. Office - Bridge Office. NA - Not Applicable. Office - Bridge Office. | | | | | | |
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Department of Transportation and Infrastructure, Government of Newfoundland and Labrador 2021.