## Bridge Inspection

| | | | |
|---|---|---|---|
| Bridge File Number | 70546 -1 Bridge | Form Type | PCS |
| Year Built/Year Supstr | 1979/1979 | Lot No. | 2 |
| | | Inspector Name | Brian Pientsch |
| Bridge or Town Name | GRIMSHAW | Inspector Class | BR CLS A |
| Located Over | CARDINAL CREEK, 8.10.48.3, WATERCRS-ST | Assistant Name | Clem Guenette |
| | | Assistant Class | BR CLS B |
| Located On | 737:02 C1 33.993 | Inspection Date | 25-Mar-2013 |
| Water Body Cl./Year | | Data Entry By | Theresa Lacusta |
| Navigabil. Cl./Year | | Data Entry Date | 10-Apr-2013 |
| Legal Land Location | SE SEC 26 TWP 84 RGE 24 W5M | Reviewer Name | Eric Carcoux |
| Longitude, Latitude | -117:40:32, 56:18:21 | Review Date | 03-Apr-2013 |
| Road Authority | Alberta Transportation (AIT) | Dept. Reviewer Name | |
| Contract Main. Area | CMA04 | Dept. Review Date | |
| Clear Roadway/Skew | 10.1 / | Follow-Up By | |
| AADT/Year | 320 / 2012 (A) | | |
| Road Classification | RCU-209-110 | | |
| Detour Length (km) | 5 | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Allowable Load (t): | Single | CS1 28 | Semi | CS2 49 | Train | CS3 62 | ---> On Critical Spans<br>--->Critical Member |
| Design Loading: | | MS23 | | | | | ---> Primary Span |

## Posting Information

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Required Load Posting (t) | | | Single | | Semi | | Truck Train | |
| Posted Loading (t) | | | Single | | Semi | | Truck Train | |
| Posted: | Lane | EB | At Junction (Y/N) | No | In Advance (Y/N) | No | At Bridge (Y/N) | No |
| Posted: | Lane | WB | At Junction (Y/N) | No | In Advance (Y/N) | No | At Bridge (Y/N) | No |
| Remarks | Not required. | | | | | | | |

| | |
|---|---|
| Hazard Marker At Bridge (Y/N) | Yes |
| Remarks | Installed too low & SE & SW signs facing wrong direction. |
| Other Sign Types | Bump, both directions. |

## Utilities (Located at)

| | | | |
|---|---|---|---|
| Utility Attachments | | | |
| Telephone | SOUTH DITCH | Gas | |
| Power | 11 M N. OF C/L-2 wire | Municipal | |
| Others | | Problem (Y/N) | No |
| Remarks | | | |

## Approach Road

| | | Last | Now | Explanation of Condition |
|---|---|---|---|---|
| Horizontal Alignment | | 7 | 7 | Bump in WBL. |
| Vertical Alignment | | 8 | 8 | |
| Roadway Width (m) | 9.400 | | | Bump in WBL.<br>ACP cracked on both abutments. |
| Approach Bump | | 4 | 4 | |
| Guardrail (Y/N) | Yes | | | |
| Guardrail | | 8 | 7 | |
| Length (m) | 22.800 | | | |
| Current Standard (Y/N) | No | | | |
| Termination Type | TURN DOWN | | | |
| Drainage | | 7 | 6 | Some ponding @ West approach due to snow melt. |
| **Approach Road General Rating** | | **7** | **7** | |

| Superstructure | | | | | | |
|---|---|---|---|---|---|---|
| **Bridge Component** | | | | | **Last** | **Now** | **Explanation of Condition** |
| (Primary Span : **SM, 1 Spans, Lengths(m): 6, A-Ident Number:** ) | | | | | | | |
| **Special Features** | | | | | | | |
| Special Feature | | | | | | X | |
| (Type : ) | | | | | | | |
| Special Feature | | | | | | X | |
| (Type : ) | | | | | | | |
| Wearing Surface/Deck Top Detail Ratings | | | | | | | |
| | N (%) | 1 (%) | 2 (%) | 3 (%) | | | |
| **Last** | | | | | | | |
| **Now** | 10.0 | | | | | | |
| Wearing Surface | | | | | 4 | 5 | ACP is cracked along 4 girder lines.<br><br>Heavy corrosion staining on deck underside from connection pockets. |
| (Material Type : **ACP**) | | | | | | | |
| (Thickness(mm) : **50**) | | | | | | | |
| Lateral Connection Problem (Y/N) | | | Yes | | | | |
| Deck Top | | | | | N | N | |
| Deck Rideability | | | | | 5 | 5 | |
| Deck Joints | | | | | N | N | Covered by ACP. |
| Bump (Y/N) | | | No | | | | |
| Deck Drainage | | | | | 7 | 5 | NO DRAINS |
| Drains Clogged (Y/N) | | | No | | | | |
| Curbs/Median | | | | | 4 | 4 | Lift hook pockets not grouted. |
| (Curb Type : **Standard**) | | | | | | | |
| Scaling (Percent Area) | | | 0 | | | | |
| Bridge Rail | | | | | 4 | 4 | Both bridgerails damaged at east end.<br>North bridgerail is bent up (photo).<br>South bridgerail is bent down (photo). |
| (Type : **GALVANIZED STEEL BRIDGE TUBE**) | | | | | | | |
| Bridge Rail Posts | | | | | 7 | 7 | |
| (Type : **GALVANIZED POST STEEL;GALVANIZED POST STEEL**) | | | | | | | |
| Bridge Rail/Posts Coating | | | | | 7 | 7 | |
| (Type : **GALVANIZED**) | | | | | | | |
| Sidewalk | | | | | X | X | |
| Girder Detail Ratings | | | | | | | |
| | N (count) | 1 (count) | 2 (count) | 3 (count) | | | |
| **Last** | | | | | | | |
| **Now** | | | | 1 | | | |
| Girders | | | | | 7 | 3 | A few rust spots on underside originating from debris left in forms during casting.<br>G1 spall both ends, hole 300m DPx100mmx100mm.<br><br>G8 hairline cracking and efflorescence.<br>Curb lift pockets not grouted. |
| Last Complete Inspection Date | | | 25-Mar-2013 | | | | |
| Cracking (Y/N) | | | No | | | | |
| Spalling (Percent Area) | | | 0 | | | | |
| Lift or Connector Pocket Grouted (Y/N) | | | No | | | | |
| (Number Of Girders : **9**) | | | | | | | |
| **Span Alignment Problems** | | | | | | | |
| Vertical (Y/N) | | | No | | | | |
| Horizontal (Y/N) | | | No | | | | |
| **Superstructure General Rating** | | | | | **7** | **3** | |

| Substructure | | | | | |
|---|---|---|---|---|---|
| **Bridge Component** | | | **Last** | **Now** | **Explanation of Condition** |
| **Abutments** | | | | | |
| (Extended Backwall Piles (Y/N) : **Y**) | | | | | |
| (Extended Backwall Piles Spacing(mm) : **1000**) | | | | | E ABUT CAP MAY BE MOVING IN. MEASURED 111mm FROM PLATE TO EDGE OF CAP @ A2,P2. Still the same. |
| (Total Number of Caps/Corbels : **3:3**) | | | | | |
| Bearing Seats/Caps/Corbels Detail Ratings | | | | | |
| | N (count) | 1 (count) | 2 (count) | 3 (count) | |
| **Last** | | | | | |
| **Now** | | | | | |
| Bearing Seats/Caps/Corbels | | | | 7 | 6 |
| (Type : **TREATED TIMBER**) | | | | | |
| (Depth(mm) : **300**) | | | | | |
| (Width(mm) : **350**) | | | | | |
| Backwalls/Breastwalls | | | | 7 | 6 |
| Greatest Height (m) | 1.30 | | | | SW corner of backwall charred, plank bent inward @ NW side - no loss of material. |
| Wingwalls | | | | 5 | 4 |
| (Total Number of Bearing Piles : **10:10**) | | | | | Tintops missing on SW wingwall (photo). |
| Piles Detail Ratings | | | | | |
| | N (count) | 1 (count) | 2 (count) | 3 (count) | |
| **Last** | | | | | |
| **Now** | | | | | |
| Piles | | | | 6 | 5 |
| Paint/Coating | | | | X | X |
| Abutment Stability | | | | 7 | 6 |
| Scour/Erosion | | | | 7 | 7 |
| **Piers/Bents** | | | | | |
| (Type : ) | | | | | |
| (Total Number of Caps/Corbels : ) | | | | | |
| Bearing Seats/Caps/Corbels Detail Ratings | | | | | |
| | N (count) | 1 (count) | 2 (count) | 3 (count) | |
| **Last** | | | | | |
| **Now** | | | | | |
| Bearing Seats/Caps/Corbels | | | | X | X |
| (Type : ) | | | | | |
| (Depth(mm) : ) | | | | | |
| (Width(mm) : ) | | | | | |
| (Total Number of Bearing Piles : ) | | | | | |
| Piles Detail Ratings | | | | | |
| | N (count) | 1 (count) | 2 (count) | 3 (count) | |
| **Last** | | | | | |
| **Now** | | | | | |
| Pier Shaft/Piles | | | | X | X |
| Greatest Height (m) | | | | | |
| Bracing/Struts/Sheathing | | | | X | X |
| Nose Plate | | | | X | X |

| Substructure | | | | |
|---|---|---|---|---|
| **Bridge Component** | | **Last** | **Now** | **Explanation of Condition** |
| Paint/Coating | | X | X | |
| (Colour Description : ) | | | | |
| (Colour Code : ) | | | | |
| Pier Stability | | X | X | |
| Scour | | X | X | |
| Debris (Y/N) | No | | | |
| **Substructure General Rating** | | **6** | **5** | |

| Structure Usage | | | | |
|---|---|---|---|---|
| | | **Last** | **Now** | **Explanation of Condition** |
| **Channel** | | | | |
| (U/S Direction : **S**) | | | | |
| (D/S Direction : **N**) | | | | |
| Alignment | | 7 | 7 | |
| Bank Stability | | 7 | 7 | |
| HWM (m below Top of Curb) | | | | HWM NOT VISIBLE |
| Drift (Y/N) | No | | | |
| Slope Protection | | 7 | N | Snow covered |
| (Type : ) | | | | |
| Guidebank/Spurs | | X | X | |
| Adequacy of Opening | | 7 | 7 | |
| (Fish Compensation Measure 1 : **NONE**) | | | | |
| (Fish Compensation Measure 2 : **NONE**) | | | | |
| **Channel General Rating** | | **7** | **7** | |

## Maintenance Recommendations

| Inspector Recommendations | Year | Inspector Comments | Department Comments | Target Year | Est. Cost | Cat # |
|---|---|---|---|---|---|---|
| REPAIR/REPLACE BRIDGE RAIL | 2013 | | | | | |
| SEAL CURBS | 2013 | Grout lift hook pockets. | | | | |
| PATCH DECK | | | | | | |
| OVERLAY DECK | | | | | | |
| STRAIGHTEN/REPLACE MEMBERS | | | | | | |
| WASHING | | | | | | |
| SHOTCRETE REPAIRS | | | | | | |
| CORE TIMBER CAPS/CORBELS | | | | | | |
| REPAIR/REPLACE TIMBER CAPS | | | | | | |
| REPAIR ABUTMENT SCOUR/EROSION | | | | | | |
| PLACE ADDITIONAL RIP RAP | | | | | | |
| REMOVE DRIFT ACCUMULATION | | | | | | |
| INSTALL STRUTS | | | | | | |
| OTHER ACTION | 2013 | place tintops on SW wingwall. | | | | |
| OTHER ACTION | 2013 | Repair bump on E. Approach. | | | | |
| OTHER ACTION | 2013 | Switch SE with SW Hazard Marker. | | | | |
| OTHER ACTION | 2013 | Patch hole in girder 1. | | | | |
| OTHER ACTION | | | | | | |
| OTHER ACTION | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Structural Condition Rating (Last/Now) (%)** | **72.2/44.4** | **Sufficiency Rating (Last/Now) (%)** | **72.3/60.8** | Est. Repl. Yr | 2033 | Maint. Reqd. (Y/N) | Yes |

| | | | |
|---|---|---|---|
| Special Comments for Next Inspection | | Department Comments | |

| | | | | | |
|---|---|---|---|---|---|
| Maintenance Reviewed By | | Date | | Estimated Total | 0 |
| Proposed Long-Term Strategy | | | | | |
| On 3-Year Program (Y/N) | | | | | |
| Proposed Action | | | | | |
| Previous Inspector's Name | Kris Bosters | Previous Assistant's Name | | | |
| Next Inspection Date | 25-Jun-2016 | Previous Inspection Date | 08-Oct-2009 | | |
| Inspection Cycle (Default) (months) | 39 | | | | |
| Comment | | | | | |