## Bridge Inspection

| | | | |
|---|---|---|---|
| Bridge File Number | 73823 E-1 Bridge | Form Type | PCS |
| Year Built/Year Supstr | 1977/1977 | Lot No. | 2 |
| | | Inspector Name | Jon Davies |
| Bridge or Town Name | BASSANO | Inspector Class | BR CLS B |
| Located Over | EID - IRRIGATION C, WATERCRS-IC | Assistant Name | |
| Located On | 1:16 R1 39.849 | Assistant Class | |
| Water Body Cl./Year | | Inspection Date | 05-Feb-2012 |
| Navigabil. Cl./Year | | Data Entry By | Lauren Korte |
| Legal Land Location | NE SEC 8 TWP 20 RGE 16 W4M | Data Entry Date | 08-Mar-2012 |
| Longitude, Latitude | -112:11:02, 50:41:10 | Reviewer Name | Garry Roberts |
| Road Authority | Alberta Transportation (AIT) | Review Date | 12-Feb-2012 |
| Contract Main. Area | CMA23 | Dept. Reviewer Name | Tim Davies |
| Clear Roadway/Skew | 13.7 / -30 deg. (LHF) | Dept. Review Date | 11-Mar-2012 |
| AADT/Year | 6,860 / 2010 (A) | Follow-Up By | |
| Road Classification | RFD-412.4-130 | | |
| Detour Length (km) | 1 | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Allowable Load (t): | Single | CS1 28 | Semi | CS2 49 | Train | CS3 62 | ---> On Critical Spans<br>--->Critical Member |
| Design Loading: | | HS25 | | | | | ---> 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) | | In Advance (Y/N) | | At Bridge (Y/N) | |
| Remarks | Not required | | | | | | | |

| | |
|---|---|
| Hazard Marker At Bridge (Y/N) | Yes |
| Remarks | |
| Other Sign Types | CANAL I.D.(Springhill Canal) |

## Utilities (Located at)

| | | | |
|---|---|---|---|
| Utility Attachments | | | |
| Telephone | South ditch and north r/w | Gas | |
| Power | S r/w - 1 wire - 30m FROM C/L | Municipal | |
| Others | Fibre optic in North ROW. | Problem (Y/N) | No |
| Remarks | | | |

## Approach Road

| | | Last | Now | Explanation of Condition |
|---|---|---|---|---|
| Horizontal Alignment | | 8 | 8 | Limited site distance West |
| Vertical Alignment | | 6 | 6 | |
| Roadway Width (m) | 13.000 | | | Minor rutting at West and East in both lanes. |
| Approach Bump | | 6 | 6 | |
| Guardrail (Y/N) | Yes | | | Missing 4 splice bolts at NW |
| Guardrail | | 4 | 4 | Not thriebeam |
| Length (m) | 34.000 | | | |
| Current Standard (Y/N) | No | | | |
| Termination Type | TURNED DOWN | | | |
| Drainage | | 7 | 4 | NW abutment head slope erosion gully from road drainage. |
| **Approach Road General Rating** | | **6** | **6** | |

| Superstructure | | | | | |
|---|---|---|---|---|---|
| **Bridge Component** | | | **Last** | **Now** | **Explanation of Condition** |
| (Primary Span : **VS, 4 Spans, Lengths(m): 7.6-10.7-10.7-7.6, A-Ident Number:** ) | | | | | |
| **Special Features** | | | | | |
| Special Feature | | | 8 | 8 | 3 per span. |
| (Type : **UNDERSLUNG DIAPHR**) | | | | | |
| Special Feature | | | | X | |
| (Type : ) | | | | | |
| Wearing Surface/Deck Top Detail Ratings | | | | | |
| | N (%) | 1 (%) | 2 (%) | 3 (%) | |
| **Last** | 0 | 0 | 0 | 0 | |
| **Now** | 0.0 | 0.0 | 0.0 | 0.0 | |
| Wearing Surface | | | 7 | 6 | Chipcoat on epoxy w/s on conc<br>Some cracks @ koch joints |
| (Material Type : **CONCRETE - CONVENTIONAL CHIP SEAL COAT**) | | | | | |
| (Thickness(mm) : **50**) | | | | | |
| Lateral Connection Problem (Y/N) | No | | | | |
| Deck Top | | | N | N | |
| Deck Rideability | | | 7 | 6 | |
| Deck Joints | | | 5 | N | ("Koch" joints).<br>Paved. |
| Bump (Y/N) | No | | | | |
| Deck Drainage | | | 6 | 6 | No Drains.<br>Some staining & peeling @ pier caps. 2+3 at center. |
| Drains Clogged (Y/N) | No | | | | |
| Curbs/Median | | | 4 | 4 | Some vertical cracks esp. @ post anchor bolts.<br>LIGHT SCALING @ CURB FACE<br>Spall @ base of post @ NE corner of s-4 |
| (Curb Type : **Standard**) | | | | | |
| Scaling (Percent Area) | 5 | | | | |
| Bridge Rail | | | 6 | 6 | ESTIMATE 20% FAILURE OF GROUT PADS<br>Most patches have failed mostly @ edges |
| (Type : **BRIDGE TUBE**) | | | | | |
| Bridge Rail Posts | | | 4 | 4 | Isolated corrosion |
| (Type : **GALVANIZED POST STEEL**) | | | | | |
| Bridge Rail/Posts Coating | | | 4 | 4 | |
| (Type : ) | | | | | |
| Sidewalk | | | X | X | |
| Girder Detail Ratings | | | | | |
| | N (count) | 1 (count) | 2 (count) | 3 (count) | |
| **Last** | 0 | 0 | 0 | 0 | |
| **Now** | 0 | 0 | 0 | 0 | |
| Girders | | | 6 | 6 | Hairline diagonal crack @ bottom of 4/8 curb units-MINOR CHIPS<br>Coating peeling on exterior face of girders<br>Open lift pocket at NE and NW curbs |
| Last Complete Inspection Date | 05-Feb-2012 | | | | |
| Cracking (Y/N) | Yes | | | | |
| Spalling (Percent Area) | 0 | | | | |
| Lift or Connector Pocket Grouted (Y/N) | No | | | | |
| (Number Of Girders : **48**) | | | | | |
| **Span Alignment Problems** | | | | | |
| Vertical (Y/N) | No | | | | |
| Horizontal (Y/N) | No | | | | |
| **Superstructure General Rating** | | | **6** | **6** | |

## Substructure

| Bridge Component | | Last | Now | Explanation of Condition |
|---|---|---|---|---|
| **Abutments** | | | | |
| (Extended Backwall Piles (Y/N) : **N**) | | | | |
| (Extended Backwall Piles Spacing(mm) : ) | | | | |
| (Total Number of Caps/Corbels : **1:1**) | | | | Horizontal cracking @ SW |
| Bearing Seats/Caps/Corbels Detail Ratings | | | | |
| | N (count) | 1 (count) | 2 (count) | 3 (count) |
| **Last** | 0 | 0 | 0 | 0 |
| **Now** | 0 | 0 | 0 | 0 |
| Bearing Seats/Caps/Corbels | | 6 | 6 | |
| (Type : **CONCRETE**) | | | | |
| (Depth(mm) : **500**) | | | | |
| (Width(mm) : **400**) | | | | |
| Backwalls/Breastwalls | | X | X | |
| Greatest Height (m) | 1.10 | | | |
| Wingwalls | | 7 | 7 | |
| (Total Number of Bearing Piles : **0:0**) | | | | Buried |
| Piles Detail Ratings | | | | |
| | N (count) | 1 (count) | 2 (count) | 3 (count) |
| **Last** | 20 | 0 | 0 | 0 |
| **Now** | 20 | 0 | 0 | 0 |
| Piles | | N | N | |
| Paint/Coating | | X | X | |
| Abutment Stability | | 7 | 7 | |
| Scour/Erosion | | 5 | 4 | Minor 50mm undermining @ NW Abut. Erosion gully extend down head slope up to 300mm deep. |
| **Piers/Bents** | | | | |
| (Type : **PIER-COLUMN**) | | | | |
| (Total Number of Caps/Corbels : **1:1:1**) | | | | |
| Bearing Seats/Caps/Corbels Detail Ratings | | | | |
| | N (count) | 1 (count) | 2 (count) | 3 (count) |
| **Last** | 0 | 0 | 0 | 0 |
| **Now** | 0 | 0 | 0 | 0 |
| Bearing Seats/Caps/Corbels | | 6 | 4 | |
| (Type : **CONCRETE**) | | | | |
| (Depth(mm) : **600**) | | | | |
| (Width(mm) : **500**) | | | | |
| (Total Number of Bearing Piles : **9:9:9**) | | | | |
| Piles Detail Ratings | | | | |
| | N (count) | 1 (count) | 2 (count) | 3 (count) |
| **Last** | 0 | 0 | 0 | 0 |
| **Now** | 0 | 0 | 0 | 0 |
| Pier Shaft/Piles | | 7 | 7 | |
| Greatest Height (m) | 5.40 | | | |
| Bracing/Struts/Sheathing | | 7 | 7 | |
| Nose Plate | | X | X | |
| Paint/Coating | | 5 | 5 | Corrosion @ bases |
| (Colour Description : **GREEN**) | | | | |
| (Colour Code : **14090**) | | | | |

| Substructure | | | | |
|---|---|---|---|---|
| **Bridge Component** | | **Last** | **Now** | **Explanation of Condition** |
| Pier Stability | | 7 | 7 | |
| Scour | | N | 4 | At West abutment. Pile bases not visible. |
| Debris (Y/N) | Yes | | | 2 old piles in channel. |
| **Substructure General Rating** | | **6** | **4** | |

| 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) | 3.7 | | | No visible HWM |
| Drift (Y/N) | No | | | |
| Slope Protection | | 6 | 5 | Rock and natural. Displaced at West head slope. |
| (Type : **RIP RAP; RIP RAP**) | | | | |
| Guidebank/Spurs | | X | X | |
| Adequacy of Opening | | 7 | 7 | |
| (Fish Compensation Measure 1 : **NONE**) | | | | |
| (Fish Compensation Measure 2 : **NONE**) | | | | |
| **Channel General Rating** | | **6** | **5** | |

## Maintenance Recommendations

| Inspector Recommendations | Year | Inspector Comments | Department Comments | Target Year | Est. Cost | Cat # |
|---|---|---|---|---|---|---|
| REPAIR/REPLACE BRIDGE RAIL | 2012 | Repair spall, grout pads and lift pockets 0.3m3 | | | | |
| SEAL CURBS | | | | | | |
| 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 | | | | | | |
| OTHER ACTION | | | | | | |
| OTHER ACTION | | | | | | |
| OTHER ACTION | | | | | | |

| **Structural Condition Rating (Last/Now) (%)** | **66.7/55.6** | **Sufficiency Rating (Last/Now) (%)** | **65.6/60.1** | Est. Repl. Yr | 2032 | 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 | Garry Roberts | Previous Assistant's Name | |
|---|---|---|---|
| Next Inspection Date | 05-Nov-2013 | Previous Inspection Date | 16-Jul-2010 |
| Inspection Cycle (Default) (months) | 21 | | |
| Comment | | | |