

| Bridge Inspection | | | | | | | | | |
|-------------------------------------|--------------------------------|----|-------------------|----------|---|--|---|----|--|
| Bridge File Number | 74227 -1 Bridge | | | | Form Type | SG | | | |
| Year Built/Year Supstr | 1974/1974 | | | | Lot No. | 1 | | | |
| Bridge or Town Name | FT VERMILION | | | | Inspector Name | Brian Pientsch | | | |
| Located Over | PEACE RIVER, 8.10, WATERCRS-ST | | | | Inspector Class | BR CLS A | | | |
| Located On | 88:18 C1 29.527 | | | | Assistant Name | | | | |
| Water Body Cl./Year | | | | | Assistant Class | | | | |
| Navigabil. Cl./Year | | | | | Inspection Date | 19-Jun-2012 | | | |
| Legal Land Location | SE SEC 29 TWP 108 RGE 13 W5M | | | | Data Entry By | Theresa Lacusta | | | |
| Longitude, Latitude | -116:07:45, 58:24:09 | | | | Data Entry Date | 06-Nov-2012 | | | |
| Road Authority | Alberta Transportation (AIT) | | | | Reviewer Name | Eric Carcoux | | | |
| Contract Main. Area | CMA01 | | | | Review Date | 01-Nov-2012 | | | |
| Clear Roadway/Skew | 8.5 / | | | | Dept. Reviewer Name | David Morrison | | | |
| AADT/Year | 830 / 2011 (A) | | | | Dept. Review Date | 14-Jan-2013 | | | |
| Road Classification | RAU-209-110 | | | | Follow-Up By | | | | |
| Detour Length (km) | 999 | | | | | | | | |
| Allowable Load (t): | Single | | Semi | | Train | | ----> On Critical Spans ---->Critical Member | | |
| Design Loading: | HS20 | | | | | | ----> Primary Span | | |
| Posting Information | | | | | | | | | |
| Required Load Posting (t) | Single | | | Semi | | | Truck Train | | |
| Posted Loading (t) | Single | | | Semi | | | Truck Train | | |
| Posted: | Lane | NB | At Junction (Y/N) | No | In Advance (Y/N) | No | At Bridge (Y/N) | No | |
| Posted: | Lane | SB | At Junction (Y/N) | No | In Advance (Y/N) | No | At Bridge (Y/N) | No | |
| Remarks | | | | | | | | | |
| Hazard Marker At Bridge (Y/N) | Yes | | | | | | | | |
| Remarks | | | | | | | | | |
| Other Sign Types | Peace River information sign | | | | | | | | |
| Utilities (Located at) | | | | | | | | | |
| Utility Attachments | | | | | | | | | |
| Telephone | | | | | Gas | HP gas 50m N of abut 2 and attached to bridge. | | | |
| Power | | | | | Municipal | | | | |
| Others | | | | | Problem (Y/N) | No | | | |
| Remarks | | | | | | | | | |
| Approach Road | | | | | | | | | |
| | | | Last | Now | Explanation of Condition | | | | |
| Horizontal Alignment | | | 7 | 7 | Intersection NE of approach. No Passing. | | | | |
| Vertical Alignment | | | 7 | 7 | | | | | |
| Roadway Width (m) | 8.700 | | | | | | | | |
| Approach Bump | | | 5 | 5 | | | | | |
| Guardrail (Y/N) | Yes | | | | Minor dents throughout. | | | | |
| Guardrail | | | 3 | 4 | Insufficient posts. | | | | |
| Length (m) | 53.000 | | | | Guardrail post bolt missing NW corner 1RST post. | | | | |
| Current Standard (Y/N) | No | | | | | | | | |
| Termination Type | TURNED DOWN ENDS | | | | | | | | |
| Drainage | | | 4 | 4 | No concrete drains @ South end. New drain trough @ N. abut cracked and separating. | | | | |
| Approach Road General Rating | | | 7 | 7 | | | | | |

| Superstructure | | | | | | |
|---|-------|--------------|-------|---|--|--|
| Bridge Component | | Last | Now | Explanation of Condition | | |
| (Primary Span : WG, 5 Spans, Lengths(m): 89.9-111.3-111.3-111.3-89.9, A-Ident Number: A0702-01) | | | | | | |
| Special Features | | | | | | |
| Special Feature | | | 3 | Fences cut open-photo. Locks reinstalled. Catwalk | | |
| (Type :) | | | | | | |
| Special Feature | | | X | | | |
| (Type :) | | | | | | |
| Wearing Surface/Deck Top Detail Ratings | | | | | | |
| | N (%) | 1 (%) | 2 (%) | 3 (%) | 30mm deep surface spalls NBL S. end of span1 - photo. Numerous popouts amd cracks throughout-most at South end. | |
| Last | | | | | | |
| Now | | | | 25.0 | | |
| Wearing Surface | | 4 | 3 | There are longitudinal cracks. The ones 3.5m from curb are almost entire length. The ones 2.5m from curb are intermitten(25%) Wide lateral random CKS, numerous 100mm popouts throughout. | | |
| (Material Type : CONCRETE) | | | | | | |
| (Thickness(mm) : 50) | | | | | | |
| Deck Top | | N | N | | | |
| Deck Rideability | | 7 | 7 | | | |
| Deck Joints | | 3 | 2 | MINOR CONCRETE SPALLS ON SE WING & @ SE CORNER UNDER S ABUT. JOINT (PHOTOS) Some patching @ SE corner with forms left on.-photo 400X200mm spall on deck in roof slab in S. bound have @ N end next to deck joint-photo 1 finger broken off @ N figer plate.-photo Approach side of N. finger joint 18mm higher than deck side. 13mm HT differential in fingers @ S. abut. Abut 2 joint on approach side is breaking out of concrete and is "banging" when vehicles cross. | | |
| Temperature (deg. C) | | 20 | | | | |
| (Expansion Type : FINGER PLATES) | | | | | | |
| (Fixed Type :) | | | | | | |
| Gap Size (mm) | | Gap Location | | | | |
| 30 | | Abut 1S | | | | |
| 12 | | Abut 2N | | | | |
| | | | | | | |
| Deck Drainage | | 4 | 4 | Efflorescence around the curb underside at drain locatons. | | |
| Drains Clogged (Y/N) | | No | | | | |
| Curbs/Median | | 3 | 3 | Very small popouts in concrete throughout 10% on curb tops. 450x150x50mm Spall exposing water stop, 12m N. of pier2 - photo. Spall at curb end @ SW corner=photo Numerous cracks at underside of curbs with efforescence. | | |
| (Curb Type : Standard) | | | | | | |
| Scaling (Percent Area) | | 15 | | | | |
| Bridge Rail | | 5 | 5 | 12 posts have deteriorated grout pads. Not all base plate anchor nuts fully ingaged due to bolts not protuding far enough. | | |
| (Type : GALVANIZED STEEL BRIDGE TUBE) | | | | | | |
| Bridge Rail Posts | | 4 | 4 | | | |
| (Type : GALVANIZED POST STEEL;GALVANIZED POST STEEL) | | | | | | |
| Bridge Rail/Posts Coating | | 3 | 5 | | | |
| (Type : GALVANIZED) | | | | | | |
| Sidewalk | | X | X | | | |
| Girder/Beam | | | | | | |
| Cover Plate | | 7 | 7 | | | |
| Flange | | 7 | 7 | | | |
| Web | | 7 | 7 | | | |
| Stiffeners | | 7 | 7 | | | |
| Splice | | 7 | 7 | | | |
| Weld | | 7 | 7 | | | |
| Diaphragms/Cross Frame | | 7 | 7 | | | |

| Superstructure | | | | | |
|---|-----|----------|----------|--|--|
| Bridge Component | | Last | Now | Explanation of Condition | |
| (Primary Span : WG, 5 Spans, Lengths(m): 89.9-111.3-111.3-111.3-89.9, A-Ident Number: A0702-01) | | | | | |
| Paint Condition | | 6 | 6 | Orange | |
| (Colour Description :) | | | | | |
| (Colour Code :) | | | | | |
| Touchup Required (Y/N) | No | | | | |
| Bearings | | 3 | 3 | P4 rocker 100% expanded - photo. Pier 3 fixed. All others rockers. A2 bearings in expanded position. | |
| Temperature (deg. C) | 20 | | | | |
| (Expansion Type : ROCKER BEARING) | | | | | |
| (Fixed Type : PINNED BEARING) | | | | | |
| Coating Adequate (Y/N) | Yes | | | | |
| Functioning (Y/N) | Yes | | | | |
| Deck Underside | | 4 | 3 | Cracks with salt staining in numerous locations-photo Delamination visible in numerous locations. Map cracking and water staining at South end-photo | |
| Stains (Percent Area) | 2 | | | | |
| Span Alignment Problems | | | | | |
| Vertical (Y/N) | Yes | | | Vertical ht differential at both abutment finger joints. | |
| Horizontal (Y/N) | No | | | | |
| Superstructure General Rating | | 3 | 2 | | |
| Substructure | | | | | |
| Bridge Component | | Last | Now | Explanation of Condition | |
| Abutments | | | | | |
| Bearing Seats/Caps | | 4 | 4 | Crack in S. abut. seat with spalls & salt deterioration-photo Large spalls under S. deck joint on the east curtain wall. | |
| (Type : CONCRETE) | | | | | |
| Backwalls/Breastwalls | | 4 | 4 | Concrete deterioration and spalling at base of S. backwall. | |
| Wingwalls | | 3 | 3 | Wide ck and hole at SE curtain wall.-photo Spalling base of NW curtainwall. | |
| Piles | | N | N | | |
| Paint/Coating | | 5 | 5 | | |
| Abutment Stability | | 4 | 4 | Large crack in base of S. abut indicates possible unstabilty and/or headslope movement. | |
| Scour/Erosion | | 5 | 5 | | |
| Piers/Bents | | | | | |
| (Type : PIER-SOLID) | | | | | |
| Bearing Seats/Caps | | 7 | 7 | | |
| (Type : CONCRETE) | | | | | |
| (Total Number of Bearing Piles : 0:0:0:0) | | | | | |
| Pier Shaft/Piles | | 7 | 7 | | |
| Bracing/Struts/Sheathing | | X | X | | |
| Nose Plate | | 4 | 4 | Abrasion occuring at Pier 3 and 4, on nose plate and concrete above.-07-Oct-2010 High water | |
| Paint/Coating | | 4 | 4 | Majority of coating worn. | |
| (Colour Description :) | | | | | |
| (Colour Code :) | | | | | |
| Pier Stability | | 4 | 4 | Pier 4 brg at max expanded position. | |
| Scour | | 7 | 7 | | |

| Substructure | | | | |
|--|-----|----------|----------|---|
| Bridge Component | | Last | Now | Explanation of Condition |
| Debris (Y/N) | Yes | | | Test piles at SW corner. Drift accumulation on pier 2 &3. |
| Substructure General Rating | | 4 | 4 | |
| Structure Usage | | | | |
| | | Last | Now | Explanation of Condition |
| Channel | | | | |
| (U/S Direction : W) | | | | |
| (D/S Direction : E) | | | | |
| Alignment | | 9 | 9 | |
| Bank Stability | | 4 | 4 | Erosion at toe of south headslope.photo Not affecting structure. |
| HWM (m below Top of Curb) | | | | HWM not visible. |
| Drift (Y/N) | Yes | | | |
| Slope Protection | | 4 | 4 | Erosion at toe of S. headslope. |
| (Type : NONE) | | | | |
| Guidebank/Spurs | | X | X | |
| Adequacy of Opening | | 9 | 9 | |
| (Fish Compensation Measure 1 : NONE) | | | | |
| (Fish Compensation Measure 2 : NONE) | | | | |
| Channel General Rating | | 4 | 4 | |

| Maintenance Recommendations | | | | | | | |
|---|------------------|--|---------------------|---------------|-----------|-------------------|-----|
| Inspector Recommendations | Year | Inspector Comments | Department Comments | Target Year | Est. Cost | Cat # | |
| REPAIR/REPLACE BRIDGE RAIL | 2013 | Replace missing guardrail post bolts. Replace split approach guardrail posts. | | | | | |
| GALVANIZE/PAINT BRIDGE RAIL | | | | | | | |
| RETROFIT BRIDGE RAIL | | | | | | | |
| SEAL CURBS | | | | | | | |
| PATCH DECK | | | | | | | |
| SEAL DECK | 2013 | | | | | | |
| OVERLAY DECK | 2013 | Review CSE deck testing recommendations. | | | | | |
| REPAIR/REPLACE DECK JOINTS | | | | | | | |
| RESET/ PAINT BEARINGS | 2013 | Pier 4-Reset bearings, shim N. abut brg to level joint. | | | | | |
| REPAINT SUPERSTRUCTURE | | | | | | | |
| STRAIGHTEN/REPLACE MEMBERS | | | | | | | |
| WASHING | | | | | | | |
| SHOTCRETE REPAIRS | | | | | | | |
| REPAIR ABUTMENT SCOUR/EROSION | | | | | | | |
| PLACE ADDITIONAL RIP RAP | | | | | | | |
| REMOVE DRIFT ACCUMULATION | | | | | | | |
| OTHER ACTION | 2013 | Repair bridge post grout pads. | | | | | |
| OTHER ACTION | 2013 | Patch concrete abutment cap backwall and curtailment @ abutment 1. | | | | | |
| OTHER ACTION | 2013 | Remove old test piles. | | | | | |
| OTHER ACTION | 2013 | Repair catwalk fences. | | | | | |
| OTHER ACTION | 2013 | Grout voids below concrete drain troughs and fix broken sections | | | | | |
| OTHER ACTION | 2013 | Repair curb spalls | | | | | |
| OTHER ACTION | | | | | | | |
| OTHER ACTION | | | | | | | |
| OTHER ACTION | | | | | | | |
| OTHER ACTION | | | | | | | |
| OTHER ACTION | | | | | | | |
| OTHER ACTION | | | | | | | |
| OTHER ACTION | | | | | | | |
| OTHER ACTION | | | | | | | |
| OTHER ACTION | | | | | | | |
| OTHER ACTION | | | | | | | |
| OTHER ACTION | | | | | | | |
| OTHER ACTION | | | | | | | |
| Structural Condition Rating (Last/Now) (%) | 38.9/33.3 | Sufficiency Rating (Last/Now) (%) | 48.8/44.4 | Est. Repl. Yr | 2049 | Maint. Req. (Y/N) | Yes |

| | | | | | |
|--------------------------------------|--|---------------------------|---------------------|-----------------|---|
| Special Comments for Next Inspection | Monitor pier 4 movement. Monitor banks-S headslope erosion. AT advised of low rating 20-Jun-2012(D. Morrison advised via phone call @ 3:50 pm 19-Jun-2012 and advised of "2" Rating on Deck joint. | | 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 | Brian Pientsch | Previous Assistant's Name | | | |
| Next Inspection Date | 19-Mar-2014 | Previous Inspection Date | 07-Oct-2010 | | |
| Inspection Cycle (Default) (months) | 21 | | | | |
| Comment | | | | | |