

Bridge Inspection									
Bridge File Number	02431 -1 Bridge				Form Type	PSR			
Year Built/Year Supstr	1908/1976				Lot No.	4			
Bridge or Town Name	PENHOLD				Inspector Name	Owen Salava			
Located Over	RED DEER RIVER, 3, WATERCRS-ST				Inspector Class	BR CLS A			
Located On	592:02 C1 8.818				Assistant Name				
Water Body Cl./Year					Assistant Class				
Navigabil. Cl./Year					Inspection Date	24-Oct-2011			
Legal Land Location	SE SEC 5 TWP 37 RGE 28 W4M				Data Entry By	Marcia Chavez			
Longitude, Latitude	-113:58:05, 52:08:39				Data Entry Date	24-Nov-2011			
Road Authority	Alberta Transportation (AIT)				Reviewer Name	John O'Brien			
Contract Main. Area	CMA19				Review Date	13-Nov-2011			
Clear Roadway/Skew	8.5 /				Dept. Reviewer Name	Andrew Smikles			
AADT/Year	1,490 / 2010 (A)				Dept. Review Date	24-Nov-2011			
Road Classification	RAU-209-110				Follow-Up By				
Detour Length (km)	20								
Allowable Load (t):	Single	CS1 28	Semi	CS2 49	Train	CS3 62	----> On Critical Spans ---->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)	No	In Advance (Y/N)	No	At Bridge (Y/N)	No	
Remarks	Not required.								
Hazard Marker At Bridge (Y/N)	No								
Remarks	Not required.								
Other Sign Types									

Utilities (Located at)									
Utility Attachments									
Telephone	South r/w - on curb. (S)				Gas				
Power	North r/w - 2 line.				Municipal				
Others					Problem (Y/N)	Yes			
Remarks									

Approach Road									
		Last	Now	Explanation of Condition					
Horizontal Alignment		7	7	Farm entrance to NW. Crest curve to west.					
Vertical Alignment		7	7						
Roadway Width (m)		8.500							
Approach Bump		7	7						
Guardrail (Y/N)		Yes		Type VI section bent NW corner, posts leaning. NE approach railing has a few bent sections.					
Guardrail		6	6	SW - 36.6m; NW - 19m type IV; NE & SE - 99m. Deep erosion at NW ditch pipe outfall, well vegetated. Thrie beam transition.					
Length (m)		19.000							
Current Standard (Y/N)		No							
Termination Type		TURNED DOWN							
Drainage		5	5						
<b>Approach Road General Rating</b>		<b>7</b>	<b>7</b>						

Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Primary Span : RD, 5 Spans, Lengths(m): 10.7-38.7-38.7-38.7-10.7, A-Ident Number: )					
<b>Special Features</b>					
Special Feature			X	VF-span 2,3,4	
(Type : )					
Special Feature			X		
(Type : )					
Wearing Surface/Deck Top Detail Ratings					
	N (%)	1 (%)	2 (%)	3 (%)	
<b>Last</b>					
<b>Now</b>	0.0	0.0	0.0	0.0	
Wearing Surface			8	8	Silica fume / fiber
(Material Type : <b>CONCRETE</b> )					
(Thickness(mm) : <b>50</b> )					
Lateral Connection Problem (Y/N)		Yes			
Deck Top			N	N	
Deck Rideability			8	8	
Deck Joints			8	8	
Temperature (deg. C)		1			
(Expansion Type : <b>GLAND (WABO-MAUER, TRANSFLEX, ETC)</b> )					
(Fixed Type : <b>ASPHALTIC FIBRE BOARD</b> )					
Gap Size (mm)		Gap Location			
85		Pier 1-W			
89		Pier 2			
86		Pier 3			
88		Pier 4-E			
Deck Drainage			7	7	
Drains Clogged (Y/N)		No			
Curbs/Median			5	5	Light scaling along top of curb especially SE corner near pier 4. Top of NE curb S5 delam cracking, rusting due to low cover.
(Curb Type : <b>Standard</b> )					
Scaling (Percent Area)		5			
Bridge Rail			7	7	
(Type : <b>STEEL BRIDGE TUBE;GALVANIZED STEEL BRIDGE TUBE</b> )					
Bridge Rail Posts			7	7	
(Type : <b>GALVANIZED POST STEEL;POST STEEL</b> )					
Bridge Rail/Posts Coating			8	8	
(Type : <b>GALVANIZED</b> )					
Sidewalk			X	X	
Girder Detail Ratings					
	N (count)	1 (count)	2 (count)	3 (count)	
<b>Last</b>					
<b>Now</b>	0	0	0	0	
Girders			7	7	Too high for close visual / inspection but no cracks noted. patched.
Cracking (Y/N)		No			
Spalling (Percent Area)		0			
(Number Of Girders : <b>16</b> )					

Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Primary Span : RD, 5 Spans, Lengths(m): 10.7-38.7-38.7-38.7-10.7, A-Ident Number: )					
Diaphragms/Cross Frame		7	7	S2-4 only.	
Bearings		7	7		
Temperature (deg. C)	1				
(Expansion Type : REINFORCED NEOPRENE BEARING WITH TEFLON AND STAINLESS STEEL)					
(Fixed Type : REINFORCED PAD BEARING)					
Coating Adequate (Y/N)	Yes				
Functioning (Y/N)	Yes				
Deck Underside		7	7		
Stains (Percent Area)	0				
<b>Span Alignment Problems</b>					
Vertical (Y/N)	No				
Horizontal (Y/N)	No				
<b>Superstructure General Rating</b>		<b>7</b>	<b>7</b>		
Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Secondary Span : VF)					
<b>Special Features</b>					
Special Feature			7	Span 1 & 5	
(Type : EXT LATER POST TENS)					
Special Feature			7		
(Type : UNDERSLUNG DIAPHR)					
<b>Wearing Surface/Deck Top Detail Ratings</b>					
	N (%)	1 (%)	2 (%)	3 (%)	
<b>Last</b>					
<b>Now</b>	0.0	0.0	0.0	0.0	
Wearing Surface		8	8		
(Material Type : CONCRETE)					
(Thickness(mm) : 50)					
Lateral Connection Problem (Y/N)	No				
Deck Top		N	N		
Deck Rideability		8	8		
Deck Joints		8	8	Compression seals abutments - fixed gland @ piers - fixed.	
Temperature (deg. C)	1				
(Expansion Type : GLAND (WABO-MAUER, TRANSFLEX, ETC))					
(Fixed Type : ASPHALTIC FIBRE BOARD)					
Gap Size (mm)	Gap Location				
Deck Drainage		7	7		
Drains Clogged (Y/N)	No				

Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Secondary Span : VF)					
Curbs/Median		4	4	Top of S5 NE curb low cover rebar.	
(Curb Type : <b>Standard</b> )					
Scaling (Percent Area)	5				
Bridge Rail		7	7		
(Type : <b>STEEL BRIDGE TUBE;GALVANIZED STEEL BRIDGE TUBE</b> )					
Bridge Rail Posts		7	7		
(Type : <b>GALVANIZED POST STEEL;POST STEEL</b> )					
Bridge Rail/Posts Coating		7	7		
(Type : <b>GALVANIZED</b> )					
Sidewalk		X	X		
Girder Detail Ratings					
	N (count)	1 (count)	2 (count)	3 (count)	
<b>Last</b>					
<b>Now</b>	0	0	0	0	
Girders		7	7		
Cracking (Y/N)	No				
Spalling (Percent Area)	0				
(Number Of Girders : <b>18</b> )					
Diaphragms/Cross Frame		X	X		
Bearings		7	7		
Temperature (deg. C)	1				
(Expansion Type : <b>REINFORCED NEOPRENE BEARING WITH TEFLON AND STAINLESS STEEL</b> )					
(Fixed Type : <b>REINFORCED PAD BEARING</b> )					
Coating Adequate (Y/N)	Yes				
Functioning (Y/N)	Yes				
Deck Underside		7	7		
Stains (Percent Area)	1				
<b>Span Alignment Problems</b>					
Vertical (Y/N)	No				
Horizontal (Y/N)	No				
<b>Superstructure General Rating</b>		<b>7</b>	<b>7</b>		
Substructure					
Bridge Component		Last	Now	Explanation of Condition	
<b>Abutments</b>					
Bearing Seats/Caps		7	7		
(Type : <b>CONCRETE</b> )					
Backwalls/Breastwalls		7	7		
Wingwalls		6	6		
Piles		N	N		
Paint/Coating		6	6		
Abutment Stability		7	7		
Scour/Erosion		7	7		

Substructure				
Bridge Component		Last	Now	Explanation of Condition
<b>Piers/Bents</b>				
(Type : <b>PIER-SOLID</b> )				
Bearing Seats/Caps		6	6	
(Type : <b>CONCRETE</b> )				
(Total Number of Bearing Piles : <b>0:0:0:0</b> )				
Pier Shaft/Piles		5	5	Crack in W pier at cold joint line. Exposed rebar W side of P2 near nose plate. Heavy scaling / cracking near waterline, typical all piers - photo. Heavy graffiti at E & W pier.
Bracing/Struts/Sheathing		X	X	
Nose Plate		7	7	
Paint/Coating		X	X	
(Colour Description : )				
(Colour Code : )				
Pier Stability		7	7	
Scour		N	N	
Debris (Y/N)	No			
<b>Substructure General Rating</b>		<b>6</b>	<b>5</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel</b>				
(U/S Direction : <b>S</b> )				
(D/S Direction : <b>N</b> )				
Alignment		7	7	
Bank Stability		5	5	Minor sloughing along E bank.
HWM (m below Top of Curb)				HWM not visible.
Drift (Y/N)	No			
Slope Protection		5	5	Minor erosion along toe of E hslp.
(Type : <b>NATURAL; NATURAL</b> )				
Guidebank/Spurs		X	X	
Adequacy of Opening		8	8	
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				
<b>Channel General Rating</b>		<b>5</b>	<b>5</b>	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
REPAIR/REPLACE BRIDGE RAIL							
GALVANIZE/PAINT BRIDGE RAIL							
SEAL CURBS							
PATCH DECK							
SEAL DECK							
OVERLAY DECK							
REPAIR/REPLACE DECK JOINTS							
RESET/ PAINT BEARINGS							
WASHING							
SHOTCRETE REPAIRS							
REPAIR ABUTMENT SCOUR/EROSION							
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION							
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>72.2/66.7</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>62.2/60.0</b>	Est. Repl. Yr	2043	Maint. Req. (Y/N)	No
Special Comments for Next Inspection			Department Comments				
Maintenance Reviewed By			Date			Estimated Total	0
Proposed Long-Term Strategy							
On 3-Year Program (Y/N)	Y						
Proposed Action	2006.09.27 Fibre reinforced silica fume concrete overlay, six deck joints and possible regalvanizing of existing bridge rails.						
Previous Inspector's Name	Arnold Assenheimer		Previous Assistant's Name	Todd Warshawski			
Next Inspection Date	24-Jan-2015		Previous Inspection Date	14-Nov-2007			
Inspection Cycle (Default) (months)	39						
Comment							