

Bridge Inspection										
Bridge File Number	77349 -1 Bridge					Form Type	PSR			
Year Built/Year Supstr	1978/1978					Lot No.	1			
Bridge or Town Name	PENHOLD					Inspector Name	Owen Salava			
Located Over	2:24 L1 15.678;2:24 R1 15.686;RAMP 45-1 B;RAMP 45-1 F					Inspector Class	BR CLS A			
Located On	42:08 C1 3.938					Assistant Name				
Water Body Cl./Year						Assistant Class				
Navigabil. Cl./Year						Inspection Date	14-Mar-2013			
Legal Land Location	SE SEC 5 TWP 37 RGE 27 W4M					Data Entry By	Marcia Chavez			
Longitude, Latitude	-113:48:53, 52:08:35					Data Entry Date	27-Mar-2013			
Road Authority	Alberta Transportation (AIT)					Reviewer Name	John O'Brien			
Contract Main. Area	CMA19					Review Date	17-Mar-2013			
Clear Roadway/Skew	14 /					Dept. Reviewer Name	Chris Black			
AADT/Year	1,330 / 2011 (A)					Dept. Review Date	28-Mar-2013			
Road Classification	RAU-213.4-120					Follow-Up By				
Detour Length (km)	10									
Allowable Load (t):	Single	CS1 28			Semi	CS2 49		Train	CS3 62	----> On Critical Spans ---->Critical Member
Design Loading:	MS23								----> Primary Span	

Posting Information												
Required Vert. Clearance Posting (m)			UNDER: 2 L1 5.5m, 2 R1 5.5m									
Posted Vertical Clearance (Y/N)			Yes									
Posted:	Lane	NB	On Bridge (m)	5.7	In Advance (Y/N)	Yes	Lane	SB	On Bridge (m)	5.4	In Advance (Y/N)	Yes
Remarks		Service road 6.1m NB & 5.3m SB, also posted in advance.										
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	At Bridge (Y/N)	No		
Posted:	Lane	WB	At Junction (Y/N)	No	In Advance (Y/N)	No	At Bridge (Y/N)	No	At Bridge (Y/N)	No		
Remarks		Not required.										
Hazard Marker At Bridge (Y/N)		No										
Remarks												
Other Sign Types												

Utilities (Located at)									
Utility Attachments									
Telephone	South side.					Gas			
Power	3 wires East & West interchange r/w.					Municipal			
Others						Problem (Y/N)	No		
Remarks									

Approach Road				
		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	Typical crest curve on grade separation.
Vertical Alignment		7	7	
Roadway Width (m)	14.700			ACP 35mm above paving lip at NE.
Approach Bump		6	6	
Guardrail (Y/N)	Yes			Insufficient posts/spacing next to bridge, all corners - minor. Not thrie beam.
Guardrail		7	7	
Length (m)	68.000			
Current Standard (Y/N)	No			
Termination Type	TURNED DOWN			
Drainage		3	3	(Erosion @ SW & NE sideslopes - photos. 13Sep2011) - Snow covered. NE corner eroded along curtain wall and undermining slope protection. Minor erosion along NW wingwall.

Approach Road				
		Last	Now	Explanation of Condition
<b>Approach Road General Rating</b>		7	7	
Superstructure				
Bridge Component		Last	Now	Explanation of Condition
(Primary Span : <b>FM, 4 Spans, Lengths(m): 22-26-26-26, A-Ident Number: )</b>				
Special Features				
Special Feature		7	7	
(Type : <b>EXT LATER POST TENS</b> )				
Special Feature		7	7	
(Type : <b>UNDERSLUNG DIAPHR</b> )				
Wearing Surface/Deck Top Detail Ratings				
	N (%)	1 (%)	2 (%)	3 (%)
<b>Last</b>	0	0	0	0
<b>Now</b>	5.0	0.0	0.0	0.0
Wearing Surface		6	6	Chip sealed.
(Material Type : <b>CONCRETE - CONVENTIONAL CHIP SEAL COAT</b> )				
(Thickness(mm) : <b>50</b> )				
Lateral Connection Problem (Y/N)	No			
Deck Top		N	N	
Deck Rideability		7	7	
Deck Joints		4	4	Water overtoping plumbing when it ices up staining backwalls randomly. Icing at A2; drain plumbing appears to be rusted through.
Temperature (deg. C)	-14			
(Expansion Type : <b>FINGER PLATES</b> )				
(Fixed Type : <b>GLAND (WABO-MAUER, TRANSFLEX, ETC)</b> )				
Gap Size (mm)	Gap Location			
65	W. abut			
110	E. abut			
74	W. pier			
70	E. pier			
73	Cen pier			
Deck Drainage		7	4	No drains. Backwall stains from plumbing leaks. Icing at NE bearing seat.
Drains Clogged (Y/N)				
Curbs/Median		6	6	Sealed.
(Curb Type : <b>Standard</b> )				
Scaling (Percent Area)	1			
Bridge Rail		8	8	Rusting at base of posts.
(Type : <b>GALVANIZED STEEL BRIDGE TUBE</b> )				
Bridge Rail Posts		7	7	
(Type : <b>GALVANIZED POST STEEL; GALVANIZED POST STEEL</b> )				
Bridge Rail/Posts Coating		5	5	
(Type : <b>GALVANIZED</b> )				
Sidewalk		X	X	
Girder Detail Ratings				
	N (count)	1 (count)	2 (count)	3 (count)
<b>Last</b>	0	0	0	2
<b>Now</b>	0	0	0	3

Superstructure				
Bridge Component		Last	Now	Explanation of Condition
(Primary Span : <b>FM, 4 Spans, Lengths(m): 22-26-26-26, A-Ident Number: )</b>				
Girders		3	3	S1G1,9 & S2G1 vertical end cracks - monitor. Repaired cracks @ ends of girders over W pier. Typical FM cracking in chamfer. S1G1,9 & S2G1 have vertical end of girder cracks at P1,2. S1G9 delam.
Cracking (Y/N)	Yes			
Spalling (Percent Area)	0			
(Number Of Girders : <b>36</b> )				
Diaphragms/Cross Frame		6	6	Minor scaling on chamfer of some diaphragms.
Bearings		7	7	
Temperature (deg. C)	-14			
(Expansion Type : <b>NEOPRENE STRIP BEARING</b> )				
(Fixed Type : <b>REINFORCED NEOPRENE BEARING WITH TEFLON AND STAINLESS STEEL</b> )				
Coating Adequate (Y/N)	Yes			
Functioning (Y/N)	Yes			
Deck Underside		5	5	Minor efflorescence @ span #1 South ext.
Stains (Percent Area)	1			
<b>Span Alignment Problems</b>				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			
<b>Superstructure General Rating</b>		<b>3</b>	<b>3</b>	
Substructure				
Bridge Component		Last	Now	Explanation of Condition
<b>Abutments</b>				
Bearing Seats/Caps		7	7	Ice at NE on seat.
(Type : <b>CONCRETE</b> )				
Backwalls/Breastwalls		7	7	Ice at NE on breastwall.
Wingwalls		6	6	
Piles		N	N	
Paint/Coating		4	4	Peeling off wingwalls - photo.
Abutment Stability		8	8	
Scour/Erosion		X	4	Erosion ditches along NE curtain wall; minor erosion at SE wall.
<b>Piers/Bents</b>				
(Type : <b>PIER-COLUMN</b> )				Short delam cracks at S end of W pier. Staining at P1, both ends; P2, S end.
Bearing Seats/Caps		5	5	
(Type : <b>CONCRETE</b> )				
(Total Number of Bearing Piles : <b>5:5:5</b> )				
Pier Shaft/Piles		8	8	
Bracing/Struts/Sheathing		X	X	
Nose Plate		X	X	
Paint/Coating		5	5	N end P1 has corrosion stains & sealer deteriorated; S end P1 has cracks on bottom surfaces. Grey.
(Colour Description : )				
(Colour Code : )				
Pier Stability		8	8	
Scour		X	X	

Substructure				
Bridge Component		Last	Now	Explanation of Condition
Debris (Y/N)	No			
<b>Substructure General Rating</b>		<b>5</b>	<b>5</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Grade Separation</b>				
Road Alignment		9	9	
Traffic Safety Features		4	6	
Type	Guardrail			
Slope Protection		3	3	100mm separation btwn slabs on W abut near top - sealed. 360mm gap near top of E slope filled with asphalt. Eroding at NE.
(Type : <b>CONCRETE; CONCRETE</b> )				
Bank Stability		4	4	Toe of E hslp buckled at base.
Drainage		4	5	Ponding W shoulder at W hslp - minor.
<b>Grade Separation General Rating</b>		<b>4</b>	<b>4</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	2015	Replace finger joints with waterproof joints at abutments.					
RESET/ PAINT BEARINGS							
WASHING							
SHOTCRETE REPAIRS							
REPAIR ABUTMENT SCOUR/EROSION	2013	Fill gap in slope protection with ACP.					
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION							
OTHER ACTION	2013	Grind ACP level at NE paving lip.					
OTHER ACTION	2013	At NE, 2 m3 road crush to repair erosion at corners & divert water onto headslope.					
OTHER ACTION	2013	Scrape and reseal exposed concrete at wingwalls.					
OTHER ACTION	2013	Consider toe wall to stabilize slope protection.					
OTHER ACTION	2013	Seal backwalls, seats, breastwalls & pier caps.					
OTHER ACTION	2013	Repair plumbing to keep water off substructure.					
OTHER ACTION	2013	Assess girders & repair.					
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>44.4/44.4</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>46.4/45.7</b>	Est. Repl. Yr	2035	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Monitor cracked girders.		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	Owen Salava		Previous Assistant's Name				
Next Inspection Date	14-Dec-2014		Previous Inspection Date	13-Sep-2011			
Inspection Cycle (Default) (months)	21						
Comment							