Bridge Inspection

Bridge File Number	01153 -1 Bridge	Form Type	PSR
Year Built/Year Supstr	1959/1959	Lot No.	1
		Inspector Name	Garry Roberts
Bridge or Town Name	LUNDBRECK	Inspector Class	BR CLS A
Located Over	OLDMAN RIVER, 2.12, WATERCRS-ST	Assistant Name	
Located On	22:08 C1 0.038	Assistant Class	
Water Body Cl./Year		Inspection Date	18-Jun-2012
Navigabil. Cl./Year		Data Entry By	Erin Roberts
Legal Land Location	NW SEC 1 TWP 10 RGE 2 W5M	Data Entry Date	16-Jul-2012
Longitude, Latitude	-114:09:07, 49:47:54	Reviewer Name	Joel Wozney
Road Authority	Alberta Transportation (AIT)	Review Date	26-Jun-2012
Contract Main. Area	CMA26	Dept. Reviewer Name	Tim Davies
Clear Roadway/Skew	7.9 /	Dept. Review Date	17-Jul-2012
AADT/Year	2,210 / 2011 (A)	Follow-Up By	
Road Classification	RAU-211.8-110		
Detour Length (km)	10		

Allowable Load (t):	Single	CS1 46 GIRDER	Semi	CS2 55 GIRDER	Train	CS3 65 GIRDER	---> 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	Not required							

Hazard Marker At Bridge (Y/N)	Yes
Remarks	
Other Sign Types	River I.D. and Highway I.D.

Utilities (Located at)

Utility Attachments	TELEPHONE UTILITIES-PHONE LINE		
Telephone	Conduit on West & East side under curb	Gas	
Power	2 wire 20m East	Municipal	
Others	Fibre optics @ West RW	Problem (Y/N)	Yes
Remarks			

Approach Road

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	
Vertical Alignment		6	6	
Roadway Width (m)	11.500			
Approach Bump		5	5	
Guardrail (Y/N)	Yes			Has 6 steel posts @ 1m spacing Minor damage throughout Wrong lap at NW and SE. Missing timber block at SE wing Not thriebeam.
Guardrail		4	3	
Length (m)	38.000			
Current Standard (Y/N)	No			
Termination Type	TURNED DOWN			
Drainage		6	6	
Approach Road General Rating		**6**	**6**	

Superstructure

Bridge Component		Last	Now	Explanation of Condition
(Primary Span : **PO, 4 Spans, Lengths(m): 20.7-29-29-26.8, A-Ident Number:**)				
Special Features				
Special Feature		7	7	
(SType : **EXT SHEAR STIRRUP**)				
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	3.0	

Wearing Surface		4	3	CHIPCOAT ON EPOXY ON CONCRETE Numerous patches
(Material Type : **CONVENTIONAL CHIP SEAL COAT**)				
(Thickness(mm) :)				Approx 8 locations of spalling in concrete. 1m2 spall in N/B lane of Sp.1 and S/B lane of Sp.3
Lateral Connection Problem (Y/N)	No			
Deck Top		N	N	
Deck Rideability		6	6	
Deck Joints		7	7	
Temperature (deg. C)	12			
(Expansion Type : **GLAND (WABO-MAUER, TRANSFLEX, ETC)**)				
(Fixed Type :)				

Gap Size (mm)	Gap Location
80	N abutment
75	Pier 3
75	Pier 2
70	Pier 1
80	S abutment

Deck Drainage		7	7	Retrofit drains @ North
Drains Clogged (Y/N)	No			
Curbs/Median		5	4	VERTICAL CRACKS AT APPROX 500 mm O.C. Scaling @ curb underside and fascia with minor spalls.
(Curb Type : **Standard**)				
Scaling (Percent Area)	10			
Bridge Rail		6	6	2 bolt/nut missing at post base - at pier 1. East & West sides.
(Type : **STEEL NON-STANDARD RAIL**)				
Bridge Rail Posts		3	3	10% EDGE CORROSION
(Type : **POST STEEL;POST STEEL**)				
Bridge Rail/Posts Coating		4	4	
(Type : **PAINT**)				
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		7	7	Typical Minor shoe plate cracks and spalls.
Cracking (Y/N)	Yes			
Spalling (Percent Area)	5			
(Number Of Girders : **19**)				
Diaphragms/Cross Frame		7	7	

Superstructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
(Primary Span : **PO, 4 Spans, Lengths(m): 20.7-29-29-26.8, A-Ident Number:**)				
Bearings		5	5	Painted with galvacon. Cracks at piers indicate bearings may be frozen -worst at P1 and P3.
Temperature (deg. C)	12			
(Expansion Type : **SLIDING PLATE**)				
(Fixed Type : **PINNED BEARING**)				
Coating Adequate (Y/N)	Yes			
Functioning (Y/N)	Yes			
Deck Underside		6	6	Isolated minor cracks with staining at Sp. 4
Stains (Percent Area)	2			
Span Alignment Problems				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			
Superstructure General Rating		**5**	**5**	

Substructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
Abutments				
Bearing Seats/Caps		6	6	
(Type : **CONCRETE**)				
Backwalls/Breastwalls		6	6	
Wingwalls		7	7	Missing bridge plaques at wingwalls
Piles		N	N	Buried.
Paint/Coating		X	X	
Abutment Stability		7	7	
Scour/Erosion		5	5	South bank is eroding
Piers/Bents				
(Type : **PIER-COLUMN**)				6mm WIDE SPALL CRACKING @East end of pier 3 BELOW BEARINGS 3+5. 15mm wide crack and spall at P1 east end under bearing. One VERTICAL CRACK IN BOTTOM SOLID SHAFT PER PIER.
Bearing Seats/Caps		3	3	
(Type : **CONCRETE**)				
(Total Number of Bearing Piles : **2:2:2**)				
Pier Shaft/Piles		6	6	
Bracing/Struts/Sheathing		X	X	
Nose Plate		7	7	
Paint/Coating		4	4	SUPERFICIAL RUSTING - 25% @ North Plates.
(Colour Description :)				
(Colour Code :)				
Pier Stability		7	7	
Scour		6	6	
Debris (Y/N)	No			
Substructure General Rating		**3**	**3**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel				
(U/S Direction : **W**)				
(D/S Direction : **E**)				
Alignment		8	7	
Bank Stability		5	3	Vertical bank at South with steep erosion gulley at SW.
HWM (m below Top of Curb)				No Visible HWM
Drift (Y/N)	No			
Slope Protection		7	7	Natural shale at South.
(Type : **NATURAL; NATURAL**)				
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	2012	Install 4 post A/B. Install 220x 400 timber block at SE. Replace 1 approach rail section.				
GALVANIZE/PAINT BRIDGE RAIL						
SEAL CURBS						
PATCH DECK	2012	Approx. 10m2				
SEAL DECK						
OVERLAY DECK	2015	HPC overlay.				
REPAIR/REPLACE DECK JOINTS						
RESET/ PAINT BEARINGS						
WASHING						
SHOTCRETE REPAIRS						
REPAIR ABUTMENT SCOUR/EROSION	2012	Repair SW erosion 25m3 Cl. 2				
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION						
OTHER ACTION	2012	CHIP OUT TO SOUND CONCRETE + REBAR & PATCH P1 and P 5 - may require falsework at pier 1.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**44.4/44.4**	**Sufficiency Rating (Last/Now) (%)**	**45.6/45.4**	Est. Repl. Yr	2028	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection	Use caution when inspecting South headslope due to steep erosion gully.	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	18-Mar-2014	Previous Inspection Date	07-Oct-2010		
Inspection Cycle (Default) (months)	21				
Comment					