Bridge Inspection

Bridge File Number	74222 -1 Bridge	Form Type	SG
Year Built/Year Supstr	1955/1955	Lot No.	4
		Inspector Name	Owen Salava
Bridge or Town Name	HARDISTY	Inspector Class	BR CLS A
Located Over	BATTLE RIVER, 5, WATERCRS-ST	Assistant Name	
Located On	13:16 C1 41.934	Assistant Class	
Water Body Cl./Year		Inspection Date	28-Jun-2012
Navigabil. Cl./Year		Data Entry By	Marcia Chavez
Legal Land Location	NE SEC 25 TWP 42 RGE 10 W4M	Data Entry Date	15-Jul-2012
Longitude, Latitude	-111:18:19, 52:39:06	Reviewer Name	John O'Brien
Road Authority	Alberta Transportation (AIT)	Review Date	05-Jul-2012
Contract Main. Area	CMA16	Dept. Reviewer Name	Andrew Smikles
Clear Roadway/Skew	8.5 /	Dept. Review Date	19-Jul-2012
AADT/Year	1,610 / 2011 (A)	Follow-Up By	
Road Classification	RAU-211.8-110		
Detour Length (km)	35		

Allowable Load (t):	Single	CS1 42 GIRDER	Semi	CS2 57 GIRDER	Train	CS3 71 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	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)	Yes
Remarks	
Other Sign Types	River ID - missing.

Utilities (Located at)

Utility Attachments			
Telephone	Attached inside South girder & @ North & South r/w.	Gas	80m South.
		Municipal	
Power		Problem (Y/N)	No
Others			
Remarks			

Approach Road

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	At bottom of sag curve.
Vertical Alignment		6	6	
Roadway Width (m)	11.400			
Approach Bump		6	6	
Guardrail (Y/N)	Yes			Type A. Curved section at NW. Minor dents and scrapes.
Guardrail		6	6	
Length (m)	30.000			
Current Standard (Y/N)	Yes			
Termination Type	TURNED DOWN			
Drainage		7	7	
Approach Road General Rating		**6**	**6**	

Superstructure

Bridge Component	Last	Now	Explanation of Condition
(Primary Span : **RB, 3 Spans, Lengths(m): 19.5-24.4-19.5, A-Ident Number: A0217-01**)			
Special Features			
Special Feature		X	
(Type :)			
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	7	
(Material Type : **ACP - CONVENTIONAL CHIP SEAL COAT**)			
(Thickness(mm) : **90**)			
Deck Top	N	N	
Deck Rideability	7	7	
Deck Joints	7	7	
Temperature (deg. C) 20			
(Expansion Type : **OTHER**)			
(Fixed Type :)			

Gap Size (mm)	Gap Location
85	E. abut
85	W. abut

Deck Drainage	7	7	
Drains Clogged (Y/N) No			
Curbs/Median	5	5	Vertical cracks every 400mm on curbs.
(Curb Type : **Standard**)			
Scaling (Percent Area) 5			
Bridge Rail	7	7	Retrofit HSS 152x203 rail installed.
(Type : **GALVANIZED STEEL BRIDGE TUBE**)			
Bridge Rail Posts	7	7	
(Type : **GALVANIZED POST STEEL;GALVANIZED POST STEEL**)			
Bridge Rail/Posts Coating	7	7	
(Type : **GALVANIZED**)			
Sidewalk	X	X	
Girder/Beam			
Cover Plate	7	7	Minor sag in bottom flanges, all spans - typical (photo).
Flange	6	6	
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 : **RB, 3 Spans, Lengths(m): 19.5-24.4-19.5, A-Ident Number: A0217-01**)				
Paint Condition		6	6	Spot rusting on outside web of exterior girders.
(Colour Description : **GREEN**)				
(Colour Code : **14193**)				
Touchup Required (Y/N)	No			
Bearings		5	5	Abutment ext bearings corroding.
Temperature (deg. C)	20			
(Expansion Type : **ROCKER BEARING**)				
(Fixed Type : **PINNED BEARING**)				
Coating Adequate (Y/N)	Yes			
Functioning (Y/N)	Yes			
Deck Underside		7	7	
Stains (Percent Area)	5			
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		7	7	
(Type : **CONCRETE**)				
Backwalls/Breastwalls		7	7	
Wingwalls		7	7	Spall on SE parapet wall.
Piles		N	N	
Paint/Coating		X	X	
Abutment Stability		7	7	
Scour/Erosion		6	6	
Piers/Bents				
(Type : **PIER-SOLID**)				Vertical cracks in both piers - 1mm wide.
Bearing Seats/Caps		7	7	
(Type : **CONCRETE**)				
(Total Number of Bearing Piles : **0:0**)				
Pier Shaft/Piles		7	7	
Bracing/Struts/Sheathing		X	X	
Nose Plate		7	7	No nose plate on East pier. No paint on nose plate.
Paint/Coating		4	4	Unpainted, surface rust.
(Colour Description :)				
(Colour Code :)				
Pier Stability		7	7	
Scour		N	N	Muddy water.
Debris (Y/N)	No			
Substructure General Rating		**7**	**7**	

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)				No visible HWM.
Drift (Y/N)	No			
Slope Protection		6	6	Some scattered Class I at E pier.
(Type : **NATURAL; NATURAL**)				
Guidebank/Spurs		X	X	
Adequacy of Opening		8	8	
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**6**	**6**	

Maintenance Recommendations

Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
REPAIR/REPLACE BRIDGE RAIL						
GALVANIZE/PAINT BRIDGE RAIL						
RETROFIT BRIDGE RAIL						
SEAL CURBS						
PATCH DECK						
SEAL DECK						
OVERLAY DECK						
REPAIR/REPLACE DECK JOINTS						
RESET/ PAINT BEARINGS						
REPAINT SUPERSTRUCTURE						
STRAIGHTEN/REPLACE MEMBERS						
WASHING						
SHOTCRETE REPAIRS						
REPAIR ABUTMENT SCOUR/EROSION						
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**66.7/66.7**	**Sufficiency Rating (Last/Now) (%)**	**57.3/57.3**	Est. Repl. Yr	2040	Maint. Reqd. (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	2007.04.06 Add to 2009 Rehab program. ACP overlay and patch membrane as required.

Previous Inspector's Name	Owen Salava	Previous Assistant's Name	
Next Inspection Date	28-Mar-2014	Previous Inspection Date	31-Aug-2010

Inspection Cycle (Default) (months)	21
Comment	