Bridge Inspection

Bridge File Number	75535 N-1 Bridge	Form Type	PSR
Year Built/Year Supstr	1964/1964	Lot No.	2
		Inspector Name	Owen Salava
Bridge or Town Name	PONOKA	Inspector Class	BR CLS A
Located Over	BATTLE RIVER, 5, WATERCRS-ST	Assistant Name	
Located On	2:26 R1 43.044	Assistant Class	
Water Body Cl./Year		Inspection Date	08-Mar-2013
Navigabil. Cl./Year		Data Entry By	Marcia Chavez
Legal Land Location	SE SEC 34 TWP 42 RGE 26 W4M	Data Entry Date	26-Mar-2013
Longitude, Latitude	-113:39:40, 52:39:28	Reviewer Name	John O'Brien
Road Authority	Alberta Transportation (AIT)	Review Date	16-Mar-2013
Contract Main. Area	CMA17	Dept. Reviewer Name	Chris Black
Clear Roadway/Skew	12.2 /	Dept. Review Date	28-Mar-2013
AADT/Year	23,260 / 2011 (A)	Follow-Up By	
Road Classification	RFD-412.4-130		
Detour Length (km)	1		

Allowable Load (t):	Single	CS1 37 GIRDER	Semi	CS2 53 GIRDER	Train	CS3 73 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)		In Advance (Y/N)		At Bridge (Y/N)	
Posted:	Lane	SB	At Junction (Y/N)		In Advance (Y/N)		At Bridge (Y/N)	
Remarks	Not required.							

Hazard Marker At Bridge (Y/N)	No
Remarks	Not required.
Other Sign Types	

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	Curve to South.
Vertical Alignment		7	7	Grade rise North of bridge.
Roadway Width (m)	11.600			
Approach Bump		6	6	
Guardrail (Y/N)	Yes			S end only.
Guardrail		9	9	
Length (m)	76.000			
Current Standard (Y/N)	No			
Termination Type	TURNED DOWN			
Drainage		6	6	
Approach Road General Rating		**7**	**7**	

Superstructure

Bridge Component		Last	Now	Explanation of Condition
(Primary Span : **PQ, 3 Spans, Lengths(m): 15.8-16.8-15.8, A-Ident Number:**)				
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	5.0	0.0	0.0	0.0

Wearing Surface		4	6	ACP starting to deteriorate N abut paving lip.
(Material Type : **CONCRETE - CONVENTIONAL CHIP SEAL COAT**)				
(Thickness(mm) : **50**)				
Lateral Connection Problem (Y/N)	No			
Deck Top		N	N	
Deck Rideability		7	7	
Deck Joints		7	6	
Temperature (deg. C)	-10			
(Expansion Type : **GLAND (WABO-MAUER, TRANSFLEX, ETC)**)				
(Fixed Type :)				

Gap Size (mm)	Gap Location
85	N. abut
70	S. abut

Deck Drainage		7	7	
Drains Clogged (Y/N)	No			
Curbs/Median		3	3	Spalling btwn control jnts, 2 locations, exposing steel in S3 West curb - photos.
(Curb Type : **Standard**)				
Scaling (Percent Area)	1			
Bridge Rail		7	7	Minor accident damage to E1 & E2 panels with some bent vertical - no problem. Retrofit rail installed.
(Type : **GALVANIZED STEEL VERTICAL BAR**)				
Bridge Rail Posts		7	7	
(Type : **GALVANIZED POST STEEL;GALVANIZED POST STEEL**)				
Bridge Rail/Posts Coating		7	7	
(Type : **GALVANIZED**)				
Sidewalk		X	X	

Girder Detail Ratings				
	N (count)	1 (count)	2 (count)	3 (count)
Last	11	0	0	0
Now	0	0	0	0

Girders		4	4	U/S of top flange in S3G1 rust staining & cracking in 3 localized spots. Delam started near pier, S3G1. Localized spot rusting in girder underside at connectors.
Cracking (Y/N)	Yes			
Spalling (Percent Area)	0			
(Number Of Girders : **33**)				

Superstructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
(Primary Span : **PQ, 3 Spans, Lengths(m): 15.8-16.8-15.8, A-Ident Number:**)				
Diaphragms/Cross Frame		5	5	Med. scaling & cracking S1G1,2 @ abut diaphragm-photo. S1G11 diaphragm has spall at A1.
Bearings		5	5	Superficial corrosion on masonary & shoe plates - typical.
Temperature (deg. C)	-10			
(Expansion Type : **REINFORCED NEOPRENE BEARING WITH TEFLON AND STAINLESS STEEL**)				
(Fixed Type :)				
Coating Adequate (Y/N)	No			
Functioning (Y/N)	Yes			
Deck Underside		X	5	Localized spot rusting in girder underside at connectors.
Stains (Percent Area)	0			
Span Alignment Problems				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			
Superstructure General Rating		**4**	**4**	

Substructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
Abutments				
Bearing Seats/Caps		7	7	
(Type : **CONCRETE**)				
Backwalls/Breastwalls		7	7	
Wingwalls		7	7	
Piles		N	N	
Paint/Coating		X	X	
Abutment Stability		7	7	
Scour/Erosion		5	5	Minor drip gullies.
Piers/Bents				
(Type : **PIER-SOLID**)				Cracking P1 both ends under bearing anchor bolts (vertical narrow - med crack 500mm long.)
Bearing Seats/Caps		5	5	
(Type : **CONCRETE**)				
(Total Number of Bearing Piles : **0:0**)				
Pier Shaft/Piles		6	6	
Bracing/Struts/Sheathing		7	7	
Nose Plate		7	7	
Paint/Coating		5	4	25% corrosion with some pitting.
(Colour Description :)				Silver.
(Colour Code :)				
Pier Stability		7	7	
Scour		7	7	
Debris (Y/N)	No			
Substructure General Rating		**5**	**5**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel				
(U/S Direction : **W**)				
(D/S Direction : **E**)				
Alignment		6	6	
Bank Stability		7	7	
HWM (m below Top of Curb)				HWM not visible.
Drift (Y/N)	No			
Slope Protection		5	5	Minor headslope erosion - no problem.
(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		**5**	**5**	

Maintenance Recommendations

Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
REPAIR/REPLACE BRIDGE RAIL						
GALVANIZE/PAINT BRIDGE RAIL						
SEAL CURBS	2013	Rehab required on curbs - S3 1m3 O/H-V.				
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	2015	Paint nose plates.				
OTHER ACTION	2013	Patch S3G1 delam, 0.1m3 OH-V.				
OTHER ACTION	2013	Assess repair options for pier cracks under bearings; possibly inject with epoxy.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**50.0/50.0**	**Sufficiency Rating (Last/Now) (%)**	**55.8/55.8**	Est. Repl. Yr	2023	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection		Department Comments	

Maintenance Reviewed By		Date		Estimated Total	0

Proposed Long-Term Strategy	Installation of retrofit bridge rail programmed for 2008. Bridge should be adequate until 2025. CB
On 3-Year Program (Y/N)	
Proposed Action	

Previous Inspector's Name	Owen Salava	Previous Assistant's Name	
Next Inspection Date	08-Dec-2014	Previous Inspection Date	16-Sep-2011
Inspection Cycle (Default) (months)	21		
Comment			