Bridge Inspection

Bridge File Number	09333 -1 Bridge	Form Type	PSR
Year Built/Year Supstr	1969/1969	Lot No.	2
		Inspector Name	Eric Carcoux
Bridge or Town Name	CHERHILL	Inspector Class	BR CLS A
Located Over	PEMBINA RIVER, 8.11.84, WATERCRS-ST	Assistant Name	Wade Nanninga
Located On	764:02 C1 12.154	Assistant Class	BR CLS B
Water Body Cl./Year		Inspection Date	08-Sep-2011
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	NW SEC 15 TWP 57 RGE 5 W5M	Data Entry Date	05-Oct-2011
Longitude, Latitude	-114:40:11, 53:55:45	Reviewer Name	Arnold Assenheimer
Road Authority	Alberta Transportation (AIT)	Review Date	26-Sep-2011
Contract Main. Area	CMA12	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	8.6 /	Dept. Review Date	05-Oct-2011
AADT/Year	390 / 2010 (A)	Follow-Up By	
Road Classification	RCU-209-110		
Detour Length (km)	30		

Allowable Load (t):	Single	CS1 28	Semi	CS2 49	Train	CS3 62	---> On Critical Spans --->Critical Member
Design Loading:		CS615					---> 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)	No
Remarks	Not required due to long length of approach rail.
Other Sign Types	

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power	2 lines to west r/w. 2 line power E-W approx 30m south of bridge.	Municipal	
		Problem (Y/N)	No
Others			
Remarks			

Approach Road

		Last	Now	Explanation of Condition
Horizontal Alignment		5	5	
Vertical Alignment		5	5	
Roadway Width (m)	7.900			
Approach Bump		5	6	
Guardrail (Y/N)	No			Minor dents. North end 34.2m; South end 38.0m. NW TD too high. Too low, 400mm T.O.P. to rail c/l, do not meet standard.
Guardrail		5	5	
Length (m)	38.000			
Current Standard (Y/N)	No			
Termination Type	Turned Down			
Drainage		3	4	Bridge on grade, drains to North. Void under NW concrete drain - photo.
Approach Road General Rating		**3**	**5**	

Superstructure

Bridge Component		Last	Now	Explanation of Condition
(Primary Span : **CBT, 5 Spans, Lengths(m): 20-29-29-29-29, A-Ident Number:**)				
Special Features				
Special Feature			X	
(Type : **EXT LATER POST TENS**)				
Special Feature			X	
(Type :)				

Wearing Surface/Deck Top Detail Ratings				
	N (%)	1 (%)	2 (%)	3 (%)
Last				
Now				

Wearing Surface		7	
(Material Type : **CONCRETE - CONVENTIONAL CHIP SEAL COAT**)			
(Thickness(mm) : **150**)			
Lateral Connection Problem (Y/N)	No		
Deck Top		N	
Deck Rideability		8	
Deck Joints		7	
Temperature (deg. C)	22		
(Expansion Type : **GLAND (WABO-MAUER, TRANSFLEX, ETC)**)			
(Fixed Type :)			

Gap Size (mm)	Gap Location
70	S abut

Deck Drainage		7	
Drains Clogged (Y/N)			
Curbs/Median		5	Narrow cracking 1m spacing
(Curb Type : **NEW JERSEY**)			
Scaling (Percent Area)			
Bridge Rail		7	
(Type : **GALVANIZED STEEL BOX BEAM TYPE 1**)			
Bridge Rail Posts		7	
(Type : **GALVANIZED POST STEEL;GALVANIZED POST STEEL**)			
Bridge Rail/Posts Coating		7	
(Type : **GALVANIZED**)			
Sidewalk		X	

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

Girders		8	
Cracking (Y/N)	No		
Spalling (Percent Area)			
(Number Of Girders : **6**)			

Superstructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
(Primary Span : **CBT, 5 Spans, Lengths(m): 20-29-29-29-29, A-Ident Number:**)				
Diaphragms/Cross Frame			X	
Bearings			7	
Temperature (deg. C)	22			
(Expansion Type : **REINFORCED NEOPRENE BEARING WITH TEFLON AND STAINLESS STEEL**)				
(Fixed Type : **REINFORCED NEOPRENE BEARING WITH TEFLON AND STAINLESS STEEL**)				
Coating Adequate (Y/N)	Yes			
Functioning (Y/N)	Yes			
Deck Underside			7	
Stains (Percent Area)				
Span Alignment Problems				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			
Superstructure General Rating			**7**	

Superstructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
(Secondary Span : **FCO**)				
Special Features				
Special Feature			8	
(Type :)				
Special Feature			7	
(Type :)				
Wearing Surface/Deck Top Detail Ratings				
	N (%) / 1 (%) / 2 (%) / 3 (%)			
Last				
Now				
Wearing Surface			7	
(Material Type : **CONCRETE - CONVENTIONAL CHIP SEAL COAT**)				
(Thickness(mm) : **150**)				
Lateral Connection Problem (Y/N)	No			
Deck Top			N	
Deck Rideability			8	
Deck Joints			7	
Temperature (deg. C)	22			
(Expansion Type : **GLAND (WABO-MAUER, TRANSFLEX, ETC)**)				
(Fixed Type :)				
Gap Size (mm)	Gap Location			
65	N abut			
65	S pier			
Deck Drainage			7	
Drains Clogged (Y/N)				

Superstructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
(Secondary Span : **FCO**)				
Curbs/Median			7	Flexural cracking, light scaling.
(Curb Type : **NEW JERSEY**)				
Scaling (Percent Area)	10			
Bridge Rail			7	Not fully threaded bolts-5%
(Type : **GALVANIZED STEEL BOX BEAM TYPE 1**)				
Bridge Rail Posts			4	
(Type : **GALVANIZED POST STEEL;GALVANIZED POST STEEL**)				
Bridge Rail/Posts Coating			7	
(Type : **GALVANIZED**)				
Sidewalk			X	
Girder Detail Ratings				
	N (count)	1 (count)	2 (count)	3 (count)
Last				
Now				
Girders			4	Typ cracking in bottom 1/2 legs, and chamfer hairline-med N abut.
Cracking (Y/N)	Yes			
Spalling (Percent Area)				
(Number Of Girders : **6**)				
Diaphragms/Cross Frame			3	G2 N abut wide crack with corrosion, 2 end dia. spalls at pier 1.
Bearings			3	Pads leaning towards abutment. 6 sheared AB at N abut., rest are bent towards abut. Ouside AB at pier 2 -sheared.
Temperature (deg. C)	22			
(Expansion Type : **REINFORCED NEOPRENE BEARING WITH TEFLON AND STAINLESS STEEL**)				
(Fixed Type : **REINFORCED NEOPRENE BEARING WITH TEFLON AND STAINLESS STEEL**)				
Coating Adequate (Y/N)	Yes			
Functioning (Y/N)	Yes			
Deck Underside			7	
Stains (Percent Area)				
Span Alignment Problems				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			
Superstructure General Rating			**3**	

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	5	5	
Abutment Stability	4	5	
Scour/Erosion	4	7	

Substructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
Piers/Bents				
(Type : **PIER-COLUMN**)				Drains from South headslope draining significant amount of water @ pier 2.
Bearing Seats/Caps		7	7	
(Type : **CONCRETE**)				
(Total Number of Bearing Piles : **6:5:5:5**)				
Pier Shaft/Piles		7	7	
Bracing/Struts/Sheathing		7	7	Narrow random cracking of concrete blocking, in all piers.
Nose Plate		X	X	
Paint/Coating		4	4	Pier 2 extension not painted - photo. red
(Colour Description :)				
(Colour Code :)				
Pier Stability		7	7	
Scour		N	N	
Debris (Y/N)	No			
Substructure General Rating		**4**	**5**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel				
(U/S Direction : **W**)				
(D/S Direction : **E**)				
Alignment		7	7	
Bank Stability		5	6	
HWM (m below Top of Curb)				HWM not visible.
Drift (Y/N)	Yes			
Slope Protection		7	7	Rock on South bottom headslope, North natural.
(Type : **RIP RAP; NATURAL**)				
Guidebank/Spurs		X	X	
Adequacy of Opening		7	7	
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**5**	**6**	

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	2011	Replace sheared/bent A/B's.				
WASHING						
SHOTCRETE REPAIRS						
REPAIR ABUTMENT SCOUR/EROSION	2011	Fill void under NW approach concrete drain.				
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION						
OTHER ACTION	2011	Upgrade approach guardrail to meet standard.				
OTHER ACTION	2011	Paint P2 pile extensions & seal caps; paint P3 piles.				
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**44.4/44.4**	**Sufficiency Rating (Last/Now) (%)**	**45.9/55.8**	Est. Repl. Yr	2030	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection	Monitor movements and cracks in 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	Dave Lam	Previous Assistant's Name	
Next Inspection Date	08-Dec-2014	Previous Inspection Date	09-May-2008
Inspection Cycle (Default) (months)	39		
Comment			