Bridge Inspection

Bridge File Number	07938 -1 Bridge	Form Type	PSR
Year Built/Year Supstr	1978/1978	Lot No.	2
		Inspector Name	Jason Saly
Bridge or Town Name	BROWNFIELD	Inspector Class	BR CLS A
Located Over	BATTLE RIVER, 5, WATERCRS-ST	Assistant Name	
Located On	872:04 C1 35.637	Assistant Class	
Water Body Cl./Year		Inspection Date	09-Mar-2011
Navigabil. Cl./Year		Data Entry By	Marcia Chavez
Legal Land Location	NW SEC 32 TWP 39 RGE 10 W4M	Data Entry Date	29-Mar-2011
Longitude, Latitude	::, ::	Reviewer Name	John O'Brien
Road Authority	Alberta Transportation (AIT)	Review Date	19-Mar-2011
Contract Main. Area	CMA21	Dept. Reviewer Name	Chris Black
Clear Roadway/Skew	10.7 / -10 deg. (LHF)	Dept. Review Date	06-Apr-2011
AADT/Year		Follow-Up By	
Road Classification	RCU-209-110		
Detour Length (km)	25		

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 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								

Hazard Marker At Bridge (Y/N)	Yes
Remarks	
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		5	5	Long winding curves to North 400 m. Long steep grades of approx 6% in both directions.
Vertical Alignment		5	5	
Roadway Width (m)	9.600			
Approach Bump		7	7	
Guardrail (Y/N)	Yes			Mostly covered by snow.
Guardrail		6	N	
Length (m)	30.400			Insufficient length + posts.
Current Standard (Y/N)	No			
Termination Type	TURNED DOWN			
Drainage		7	N	
Approach Road General Rating		**5**	**5**	

Superstructure

Bridge Component		Last	Now	Explanation of Condition
(Primary Span : **FM, 3 Spans, Lengths(m): 10-38-10, 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	15.0	0.0	0.0	0.0
				Snow covered.
Wearing Surface		6	6	2 key cracks @ each end span. 3 key cracks @ center span.
(Material Type : **CONCRETE - CONVENTIONAL CHIP SEAL COAT**)				
(Thickness(mm) : **50**)				
Lateral Connection Problem (Y/N)	Yes			
Deck Top		N	N	
Deck Rideability		7	7	
Deck Joints		3	3	(Scaling at edges of waterstops on curb faces at abut joints. 18Jun2008).
Temperature (deg. C)	-11			
(Expansion Type : **ARMOURED GLAND (WABO UNDER FINGER OR SLIDING PLATES)**)				
(Fixed Type : **COMPRESSION SEAL (ACME SEALS)**)				
Gap Size (mm)	Gap Location			
67	Pier 2			
8	Pier 1			Pier joints leak at gutters. P1 is compression seal with caulking at P1 curbs. Both curb coverplates at N pier are broken. W cover plate worst condition. Allow leakage onto N pier.
Deck Drainage		4	4	Due to leakage comment + stains @ piers + center span between girders 4 + 5. Also leakage onto P2 due to cover plate damage.
Drains Clogged (Y/N)	No			
Curbs/Median		7	N	Snow covered.
(Curb Type : **Standard**)				
Scaling (Percent Area)	2			
Bridge Rail		7	7	850 mm tube type railing.
(Type : **GALVANIZED STEEL BRIDGE TUBE**)				
Bridge Rail Posts		4	4	Cap on 5th post from SE missing.
(Type : **POST STEEL;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	0	0	0	0
Now	0	0	0	0
Girders		5	4	Typical "FC" cracks in chamfer area of center span girders - narrow width. S3G7 has end girder ck'ng above the N pier. Girder ends are stained.
Cracking (Y/N)	Yes			
Spalling (Percent Area)	0			
(Number Of Girders : **21**)				

Superstructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
(Primary Span : **FM, 3 Spans, Lengths(m): 10-38-10, A-Ident Number:**)				
Diaphragms/Cross Frame		5	5	
Bearings		7	5	Minor damage to the bearing pads at the N pier.
Temperature (deg. C)	-11			
(Expansion Type : **REINFORCED PAD BEARING**)				
(Fixed Type : **REINFORCED PAD BEARING**)				
Coating Adequate (Y/N)	Yes			
Functioning (Y/N)	Yes			
Deck Underside		7	7	Staining btwn G4-5 @ center span.
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		7	7	
(Type : **CONCRETE**)				
Backwalls/Breastwalls		7	7	
Wingwalls		7	7	
Piles		N	N	
Paint/Coating		6	6	
Abutment Stability		7	7	
Scour/Erosion		7	7	
Piers/Bents				
(Type : **PIER-COLUMN**)				40 in diameter pipe piles. Rust spot at end of P2 W.
Bearing Seats/Caps		6	6	
(Type : **CONCRETE**)				
(Total Number of Bearing Piles : **0:0**)				
Pier Shaft/Piles		7	7	
Bracing/Struts/Sheathing		X	X	
Nose Plate		X	X	
Paint/Coating		4	4	Conc finish flaking under gutters.
(Colour Description :)				
(Colour Code :)				
Pier Stability		7	7	
Scour		9	N	
Debris (Y/N)	No			
Substructure General Rating		**6**	**6**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel				
(U/S Direction : **W**)				
(D/S Direction : **E**)				
Alignment		8	8	
Bank Stability		5	N	
HWM (m below Top of Curb)	5.0			
Drift (Y/N)	No			
Slope Protection		7	6	
(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**	**6**	

Maintenance Recommendations

Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
REPAIR/REPLACE BRIDGE RAIL						
GALVANIZE/PAINT BRIDGE RAIL	2011	Install cap @ SE.				
SEAL CURBS						
PATCH DECK						
SEAL DECK						
OVERLAY DECK						
REPAIR/REPLACE DECK JOINTS	2011	Re-attach curb cover plates at P2.				
RESET/ PAINT BEARINGS						
WASHING						
SHOTCRETE REPAIRS						
REPAIR ABUTMENT SCOUR/EROSION						
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**61.1/61.1**	**Sufficiency Rating (Last/Now) (%)**	**64.5/63.2**	Est. Repl. Yr	2038	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection	Install lateral stressing & underslung beams at the next rehab.	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	Tom Carey	Previous Assistant's Name			
Next Inspection Date	09-Jun-2014	Previous Inspection Date	18-Jul-2008		
Inspection Cycle (Default) (months)	39				
Comment					