

Bridge Inspection											
Bridge File Number	07870 -1 Bridge				Form Type	PSR					
Year Built/Year Supstr	1976/1976				Lot No.	2					
Bridge or Town Name	CARSELAND				Inspector Name	Tom Carey					
Located Over	LOCAL ROAD;BOW RIVER, 2.13, WATERCRS-ST				Inspector Class	BR CLS A					
Located On	24:04 C1 0.013				Assistant Name						
Water Body Cl./Year					Assistant Class						
Navigabil. Cl./Year					Inspection Date	21-Feb-2013					
Legal Land Location	NW SEC 33 TWP 21 RGE 25 W4M				Data Entry By	Anne Roberts					
Longitude, Latitude	-113:25:10, 50:49:49				Data Entry Date	19-Mar-2013					
Road Authority	Alberta Transportation (AIT)				Reviewer Name	Garry Roberts					
Contract Main. Area	CMA30				Review Date	03-Mar-2013					
Clear Roadway/Skew	9.8 / -10 deg. (LHF)				Dept. Reviewer Name	Tim Davies					
AADT/Year	2,420 / 2011 (A)				Dept. Review Date	25-Mar-2013					
Road Classification	RAU-210-110				Follow-Up By						
Detour Length (km)	87										
Allowable Load (t):	Single	CS1 28			Semi	CS2 49			Train	CS3 62	----> On Critical Spans ---->Critical Member
Design Loading:	HS25									----> Primary Span	

Posting Information												
Required Vert. Clearance Posting (m)												
Posted Vertical Clearance (Y/N)			Yes									
Posted:	Lane	EB	On Bridge (m)		In Advance (Y/N)	Yes	Lane	WB	On Bridge (m)	4.3	In Advance (Y/N)	No
Remarks		No V.C sign on bridge E/B. W/B advance V.C sign is missing.										
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)		At Bridge (Y/N)					No
Remarks		Not Required										
Hazard Marker At Bridge (Y/N)			Yes									
Remarks												
Other Sign Types			Trucks crossing, River ID, curve, bridge ices.									

Utilities (Located at)			
Utility Attachments	TELEPHONE UTILITIES-PHONE LINE		
Telephone	East side		Gas
Power	W. side - 3 wire 25m from c.l.		Municipal
Others			Problem (Y/N) No
Remarks			

Approach Road				
		Last	Now	Explanation of Condition
Horizontal Alignment		5	5	Curves both ends. Hills both ends.
Vertical Alignment		5	5	
Roadway Width (m)	14.300			Partial welded splice at NW. Not Thriebeam 1 broken post at SE
Approach Bump		5	5	
Guardrail (Y/N)	Yes			
Guardrail		3	4	
Length (m)	87.000			
Current Standard (Y/N)	No			
Termination Type	TURNED DOWN			

Approach Road					
		Last	Now	Explanation of Condition	
Drainage		7	7		
<b>Approach Road General Rating</b>		<b>5</b>	<b>5</b>		
Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Primary Span : LF, 5 Spans, Lengths(m): 38.1-38.1-38.1-38.1-38.1, A-Ident Number: )					
<b>Special Features</b>					
Special Feature			5	Dwydag bar lateral stressing. Ped. rail at west.	
(Type : <b>EXT LATER POST TENS</b> )					
Special Feature			5		
(Type : )					
Wearing Surface/Deck Top Detail Ratings					
	N (%)	1 (%)	2 (%)	3 (%)	
<b>Last</b>	0	0	0	0	
<b>Now</b>	0.0	0.0	0.0	0.0	
Wearing Surface		4	4	Chip coat on epoxy overlay 20mm total thickness.	
(Material Type : <b>CONCRETE - CONVENTIONAL CHIP SEAL COAT</b> )				Longitudinal cracks	
(Thickness(mm) : <b>50</b> )				50% of S/B lane has no chip seal - S1, S2 and S4 are the worst.	
Lateral Connection Problem (Y/N)	Yes				
Deck Top		N	N		
Deck Rideability		6	6		
Deck Joints		3	3	Trough @ backwall @ S abut too short drains on side of abut. Gravel in joints. 2500 mm Paving lips broken P2 NB & SB (4 broken finger welds at abut.1) 1 broken at A1 NB lane seen 2013. 2 broken finger welds at A2 NB. P4 joint 90% covered in concrete repair. Abut. fingers gravel filled. 700 mm paving lip broken at P3 NB and 200 mm SB.	
Temperature (deg. C)	-2				
(Expansion Type : <b>FINGER PLATES;GLAND (WABO-MAUER, TRANSFLEX, ETC)</b> )					
(Fixed Type : )					
Gap Size (mm)	Gap Location				
130	2 abut				
50	4 pier				
90	3 pier				
55	2 pier				
85	1 pier				
60	1 abut				
Deck Drainage		4	4	No deck drains. Bridge on grade.	
Drains Clogged (Y/N)				Trough @ abut deck joints are short and drains on abut.	
Curbs/Median		5	5	Isolated surface spalls - minor	
(Curb Type : <b>Standard</b> )					
Scaling (Percent Area)	2				
Bridge Rail		4	4	Steel Vertical bar pedestrian rail @ West	
(Type : <b>GALVANIZED STEEL BRIDGE TUBE</b> )				21 A/B with insufficient thread at nuts-All but one at East side.	
Bridge Rail Posts		4	4	Isolated scrapes and corrosion.	
(Type : <b>GALVANIZED POST STEEL;GALVANIZED POST STEEL</b> )				29 splice bolts missing in rails.	
Bridge Rail/Posts Coating		4	4		
(Type : <b>GALVANIZED</b> )					
Sidewalk		N	N	(EPOXY OVERLAYED - 10% abraded off) 90% covered in gravel.	

Superstructure						
Bridge Component				Last	Now	Explanation of Condition
(Primary Span : LF, 5 Spans, Lengths(m): 38.1-38.1-38.1-38.1, A-Ident Number: )						
Girder Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last	0	0	0	0		
Now	0	0	0	0		
Girders				4	4	Vertical cracks at girder ends at P2E - all others patched. Wide vertical crack in end of North East. Typical chamfer cracks & med width long cracks @ bottoms of webs @ S-1&5
Cracking (Y/N)		Yes				
Spalling (Percent Area)		0				
(Number Of Girders : 35)						
Diaphragms/Cross Frame				8	8	
Bearings				5	5	Neoprene pad 30mm past stainless steel & teflon debonding @ E bearing @ N abut - Same as previous insp.- Still functional
Temperature (deg. C)		-2				
(Expansion Type : REINFORCED NEOPRENE BEARING WITH TEFLON AND STAINLESS STEEL)						
(Fixed Type : REINFORCED PAD BEARING)						
Coating Adequate (Y/N)		Yes				
Functioning (Y/N)		Yes				
Deck Underside				7	7	All spans seen from ice.
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				4	4	Peeling at abut.1 is graffiti covered.
Abutment Stability				9	9	
Scour/Erosion				6	6	
Piers/Bents						
(Type : PIER-SOLID)						
Bearing Seats/Caps				5	5	Pier2 has a vertical crack in the pier - this goes from water to top 2mm wide.
(Type : CONCRETE)						
(Total Number of Bearing Piles : 0:0:0:0)						
Pier Shaft/Piles				7	7	
Bracing/Struts/Sheathing				X	X	
Nose Plate				7	7	
Paint/Coating				4	4	Galvanized nose plates. Pigmented sealer at pier shafts is peeling. - Worst at P1
(Colour Description : SILVER)						
(Colour Code : SILVER)						

Substructure				
Bridge Component		Last	Now	Explanation of Condition
Pier Stability		8	8	
Scour		N	N	iced over.
Debris (Y/N)	No			
<b>Substructure General Rating</b>		<b>5</b>	<b>5</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel</b>				
(U/S Direction : <b>W</b> )				
(D/S Direction : <b>E</b> )				
Alignment		8	8	
Bank Stability		6	6	
HWM (m below Top of Curb)	6.0			Minor drift
Drift (Y/N)	Yes			Trees at North abut bank.
Slope Protection		7	7	Concrete at North
(Type : <b>CONCRETE; CONCRETE</b> )				Rock at South
Guidebank/Spurs		7	7	
Adequacy of Opening		7	8	
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				
<b>Channel General Rating</b>		<b>7</b>	<b>7</b>	
<b>Grade Separation</b>				
Road Alignment		5	5	
Traffic Safety Features		7	7	
Type	Guardrail			
Slope Protection		7	7	
(Type : <b>CONCRETE; CONCRETE</b> )				
Bank Stability		6	7	
Drainage		6	7	
<b>Grade Separation General Rating</b>		<b>5</b>	<b>5</b>	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
REPAIR/REPLACE BRIDGE RAIL	2014	Install missing splice bolts -29 Some require drilling of splice tube inside rail.					
GALVANIZE/PAINT BRIDGE RAIL							
SEAL CURBS							
PATCH DECK	2014	Chipseal entire SBL					
SEAL DECK							
OVERLAY DECK							
REPAIR/REPLACE DECK JOINTS	2013	Weld finger at A1 & A2- if not done, wash and weld. Patch paving lips at P2 and P3.					
RESET/ PAINT BEARINGS							
WASHING							
SHOTCRETE REPAIRS							
REPAIR ABUTMENT SCOUR/EROSION							
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION							
OTHER ACTION	2013	Install 4.3 advance vertical Cl. sign at W/B of Sp.5. E/B sign on bridge not required is dead end at west.					
OTHER ACTION	2013	Replace gaurdrail posts at South East					
OTHER ACTION	2014	Recoat S abutments and pier exteriors					
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>50.0/50.0</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>36.7/36.8</b>	Est. Repl. Yr	2031	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection			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	21-Nov-2014		Previous Inspection Date	19-May-2011			
Inspection Cycle (Default) (months)	21						
Comment							