

Bridge Inspection							
Bridge File Number	01766 -1 Bridge			Form Type	PSR PCS		
Year Built/Year Supstr	1967/1967			Lot No.	2		
Bridge or Town Name	BRUDERHEIM			Inspector Name	Jason Saly		
Located Over	BEAVERHILL CREEK, 6.62, WATERCRS-ST			Inspector Class	BR CLS A		
Located On	38:10 C1 20.146			Assistant Name			
Water Body Cl./Year				Assistant Class			
Navigabil. Cl./Year				Inspection Date	24-Jan-2013		
Legal Land Location	NW SEC 32 TWP 56 RGE 20 W4M			Data Entry By	Marcia Chavez		
Longitude, Latitude	-112:56:60, 53:53:21			Data Entry Date	22-Feb-2013		
Road Authority	Alberta Transportation (AIT)			Reviewer Name	John O'Brien		
Contract Main. Area	CMA14			Review Date	13-Feb-2013		
Clear Roadway/Skew	9.1 /			Dept. Reviewer Name	Chris Black		
AADT/Year	1,550 / 2011 (A)			Dept. Review Date	14-Mar-2013		
Road Classification	RAU-209-110			Follow-Up By			
Detour Length (km)	32						
Allowable Load (t):	Single		Semi		Train		----> 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	Posting not required.							

Hazard Marker At Bridge (Y/N)	Yes						
Remarks	Offline by 0.5m; missing at NW, SW & SE.						
Other Sign Types	Curve.						

Utilities (Located at)			
Utility Attachments			
Telephone	Plowed in South ditch.		Gas
Power	3 wires North r/w.		Municipal
Others			Problem (Y/N) No
Remarks			

Approach Road				
		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Curve to East through a slight vertical grade, no passing EB.
Vertical Alignment		6	6	
Roadway Width (m)	9.300			2 broken posts at NE. Insufficient length and lacks 2 posts per corner.
Approach Bump		5	5	
Guardrail (Y/N)	Yes			
Guardrail		7	4	
Length (m)	38.000			(New drains installed @ approach corners. 16/July/2006) Erosion gullies @ West headslope.
Current Standard (Y/N)	No			
Termination Type	Turned Down			
Drainage		4	4	
Approach Road General Rating		6	6	

Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Primary Span : FC, 3 Spans, Lengths(m): 10.1-25.9-10.1, A-Ident Number:)					
Special Features					
Special Feature		8	7		
(SType : EXT SHEAR STIRRUP)					
Special Feature			X		
(Type :)					
Wearing Surface/Deck Top Detail Ratings					
	N (%)	1 (%)	2 (%)	3 (%)	Snow covered along curb/gutter.
Last	1	0	0	0	
Now	5.0	0.0	0.0	0.0	
Wearing Surface		6	5	Minor areas of lost seal coat.	
(Material Type : CONCRETE - CONVENTIONAL CHIP SEAL COAT)					
(Thickness(mm) : 50)					
Lateral Connection Problem (Y/N)		No			
Deck Top		N	N		
Deck Rideability		8	7		
Deck Joints		N	N	(Both glands leak on gutters. 16/July/2008) Can't confirm this inspection, previous rating=3. Snow/dirt filled gap.	
Temperature (deg. C)		-13			
(Expansion Type : GLAND (WABO-MAUER, TRANSFLEX, ETC))					
(Fixed Type : ASPHALTIC FIBRE BOARD)					
Gap Size (mm)		Gap Location			
58		East pier			
64		West pier			
Deck Drainage		7	4	Minor erosion gullies, W hslp. No drains on deck.	
Drains Clogged (Y/N)		No			
Curbs/Median		N	N	(13Aug2009). Snow covered.	
(Curb Type : Standard)					
Scaling (Percent Area)		5			
Bridge Rail		4	5	Double layer flexbeam. Minor creasing, still functional.	
(Type : GALVANIZED STEEL FLEX BEAM)					
Bridge Rail Posts		N	N	(Insufficient A/B thread in one post in S2, South side. 13Aug2009). Snow/ice covered.	
(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	0	0	0	0	
Now	0	0	0	0	
Girders		4	4	S2G5,6 have cracking over bearings. Minor spalling @ bearing plates. Some small amounts of staining over piers. Some typical FC cracks on ends, medium width. S leg of the N girder has exposed rebar on bottom.	
Cracking (Y/N)		Yes			
Spalling (Percent Area)		1			
(Number Of Girders : 6)					

Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Primary Span : FC, 3 Spans, Lengths(m): 10.1-25.9-10.1, A-Ident Number:)					
Diaphragms/Cross Frame		5	5		
Bearings		N	N	Too high to see.	
Temperature (deg. C)	-13				
(Expansion Type : NEOPRENE STRIP BEARING)					
(Fixed Type : NEOPRENE STRIP BEARING)					
Coating Adequate (Y/N)	Yes				
Functioning (Y/N)	Yes				
Deck Underside		8	7		
Stains (Percent Area)	1				
Span Alignment Problems					
Vertical (Y/N)	No				
Horizontal (Y/N)	No				
Superstructure General Rating		4	4		
Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Secondary Span : SM)					
Special Features					
Special Feature			X		
(Type :)					
Special Feature			X		
(Type :)					
Wearing Surface/Deck Top Detail Ratings					
	N (%)	1 (%)	2 (%)	3 (%)	Snow covered along curb/gutter.
Last	1	0	0	0	
Now	5.0	0.0	0.0	0.0	
Wearing Surface		6	6	Chipseal delaminated at piers, plow damage. ACP delaminated at W abut.	
(Material Type : CONCRETE - CONVENTIONAL CHIP SEAL COAT)					
(Thickness(mm) : 50)					
Lateral Connection Problem (Y/N)	Yes				
Deck Top		N	N		
Deck Rideability		8	8		
Deck Joints		N	N	Buffer angles cast on SM units on abutment. (Leaking @ 5 gutters both pier joints. Oct/2004) Chip coat covered.	
Bump (Y/N)	No				
Deck Drainage		4	4	No drains. Erosion of headslope & spall below connector pocket from deck drainage.	
Drains Clogged (Y/N)	No				
Curbs/Median		N	N	(Curb spall/delam at various locations exposing corroded stirrups. 13Aug2009). Snow/ice covered. Voids exposed at piers, but no moisture accumulating.	
(Curb Type : Standard)					
Scaling (Percent Area)	10				
Bridge Rail		4	4	Double layer flexbeam. Missing 4 splice bolts in one splice, S3 N side.	
(Type : GALVANIZED STEEL FLEX BEAM)					
Bridge Rail Posts		4	N	Snow covered.	
(Type : GALVANIZED POST STEEL;GALVANIZED POST STEEL)					
Bridge Rail/Posts Coating		7	7		
(Type : GALVANIZED)					
Sidewalk		X	X		

Superstructure						
Bridge Component				Last	Now	Explanation of Condition
(Secondary Span : SM)						
Girder Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last	0	0	0	0		
Now	0	0	0	0		
Girders				4	4	
Last Complete Inspection Date		23-Jan-2013				
Cracking (Y/N)		Yes				Typical longit.narrow SM cracks. Diagonal cracks with water leakage & corrosion stains @ piers @ S1G1,8 & S3G1,8. Spall on underside of S1G6. Spall @ NW bottom corner @ S1G8.
Spalling (Percent Area)		1				
Lift or Connector Pocket Grouted (Y/N)		Yes				
(Number Of Girders : 16)						
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						
(Extended Backwall Piles (Y/N) : Y)						
(Extended Backwall Piles Spacing(mm) : 1500)						
(Total Number of Caps/Corbels : 1:1)						
Bearing Seats/Caps/Corbels Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last	0	0	0	0		E abut cap welded to H-piling while W abut cap welded to capitals grouted onto timber piling.
Now	0	0	0	0		
Bearing Seats/Caps/Corbels				6	6	
(Type : STEEL)						
(Depth(mm) : 350)						
(Width(mm) : 350)						
Backwalls/Breastwalls				6	6	
Greatest Height (m)		1.00				
Wingwalls				N	N	Snow covered.
(Total Number of Bearing Piles : 0:0)						
Piles Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last	100	0	0	0		Buried; only tops of P9 seen.
Now	100	0	0	0		
Piles				N	N	
Paint/Coating				4	4	All steel components not painted; scaling & pitted - no action required at this time.
Abutment Stability				7	7	Piles not anchored. Spill through abutments.
Scour/Erosion				4	4	Erosion gullies @ West headslope.

Substructure						
Bridge Component		Last	Now	Explanation of Condition		
Piers/Bents						
(Type : PIER-COLUMN)						
(Total Number of Caps/Corbels : 22:22)						
Bearing Seats/Caps/Corbels Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last	0	0	0	0		
Now	0	0	0	0		
Bearing Seats/Caps/Corbels			7	7		
(Type : STEEL)						
(Total Number of Bearing Piles : 14:14)						
Piles Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last	0	0	0	0		
Now	0	0	0	0		
Pier Shaft/Piles			5	5		
Greatest Height (m)		3.50				
Bracing/Struts/Sheathing			7	6		
Nose Plate			7	7		
Paint/Coating			7	6		
(Colour Description : BROWN)						
(Colour Code : 30252)						
Pier Stability			7	7		
Scour			7	N		
Debris (Y/N)			No			
Substructure General Rating			5	5		
Structure Usage						
		Last	Now	Explanation of Condition		
Channel						
(U/S Direction : S)			(Gentle bends. Dry channel. 07Dec2010).			
(D/S Direction : N)						
Alignment			6	6		
Bank Stability			7	N		
HWM (m below Top of Curb)			HWM not visible.			
Drift (Y/N)			No			
Slope Protection			4	4		
(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			4	4		

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
REPAIR/REPLACE BRIDGE RAIL	2013	Install missing splice bolts (4) in North rail.					
GALVANIZE/PAINT BRIDGE RAIL							
SEAL CURBS	2013	Patch delam/spalled curb & seal, if not yet done.					
PATCH DECK	2013	Patch chipseal wearing surface worn bare by plow.					
SEAL DECK							
OVERLAY DECK							
REPAIR/REPLACE DECK JOINTS	2013	Investigate & seal leakage @ pier ends. Repair if not done.					
RESET/ PAINT BEARINGS							
WASHING							
SHOTCRETE REPAIRS							
REPAIR ABUTMENT SCOUR/EROSION	2013	Repair headslope gullies.					
PLACE ADDITIONAL RIP RAP	2013	Headslope gullies.					
REMOVE DRIFT ACCUMULATION							
OTHER ACTION	2013	Re-install HMs at SW, NW & SE.					
OTHER ACTION	2013	Patch NW SM gider 0.01m3 OHV.					
OTHER ACTION	2013	Upgrade approach guardrail to meet standard & replace borken posts.					
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	50.0/50.0	Sufficiency Rating (Last/Now) (%)	54.6/54.6	Est. Repl. Yr	2024	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Currently no action for girders (FC,SM); continue regular inspections & repair when conditions change.		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	24-Oct-2014		Previous Inspection Date	07-Dec-2010			
Inspection Cycle (Default) (months)	21						
Comment							