

Bridge Inspection									
Bridge File Number	01496 -1 Bridge				Form Type	PT TT			
Year Built/Year Supstr	1970/1969				Lot No.	3			
Bridge or Town Name	MOUND				Inspector Name	Jason Saly			
Located Over	LITTLE RED DEER RIVER, 3.89, WATERCRS-ST				Inspector Class	BR CLS A			
Located On	766:06 C1 24.699				Assistant Name				
Water Body Cl./Year					Assistant Class				
Navigabil. Cl./Year					Inspection Date	15-Feb-2012			
Legal Land Location	SE SEC 3 TWP 34 RGE 3 W5M				Data Entry By	Marcia Chavez			
Longitude, Latitude	-114:20:18, 51:52:57				Data Entry Date	08-Mar-2012			
Road Authority	Alberta Transportation (AIT)				Reviewer Name	John O'Brien			
Contract Main. Area	CMA29				Review Date	29-Feb-2012			
Clear Roadway/Skew	7.3 /				Dept. Reviewer Name	Andrew Smikles			
AADT/Year	210 / 2010 (A)				Dept. Review Date	09-Mar-2012			
Road Classification	RCU-208-110				Follow-Up By				
Detour Length (km)	30								
Allowable Load (t):	Single	CS1 28		Semi	CS2 49		Train	CS3 62	
Design Loading:	HS25							----> On Critical Spans ---->Critical Member	
								----> 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	Not required.								
Hazard Marker At Bridge (Y/N)	Yes								
Remarks									
Other Sign Types	Narrow Bridge, Max 80km/hr.								
Utilities (Located at)									
Utility Attachments									
Telephone	South r/w.				Gas				
Power	2 wires 17.0m north of c/l.				Municipal				
Others					Problem (Y/N)	No			
Remarks									
Approach Road									
			Last	Now	Explanation of Condition				
Horizontal Alignment			8	7	Junction of county road 45m west. No passing. Crest curve to West.				
Vertical Alignment			7	7					
Roadway Width (m)	8.000				Slight bump @ approaches, rough ACP.				
Approach Bump			5	5					
Guardrail (Y/N)	Yes								
Guardrail			5	5					
Length (m)	11.400								
Current Standard (Y/N)	No				Insufficient posts/length.				
Termination Type	Turn Down								
Drainage			7	7					
Approach Road General Rating			7	7					

Superstructure						
Bridge Component		Last	Now	Explanation of Condition		
(Primary Span : PT, 4 Spans, Lengths(m): 6.1-30.5-8.5-6.1, A-Ident Number: A0629-01)						
Special Features						
Special Feature			X	At W pier tie back to W abut.		
(Type :)						
Special Feature			X			
(Type :)						
Wearing Surface/Deck Top Detail Ratings						
	N (%)	1 (%)	2 (%)	3 (%)	Snow/gravel covered.	
Last				10		
Now	10.0	0.0	0.0	0.0		
Wearing Surface/Deck Top				3	4	5% planks showing rot @ ends.
(Material Type : UNTREATED TIMBER)						
(Plank Thickness(mm) : 75)						
(Plank Width(mm) : 305)						
Deck Rideability				5	5	
Deck Joints				X	X	
Temperature (deg. C)						
(Expansion Type :)						
(Fixed Type :)						
Gap Size (mm)		Gap Location				
Curbs/Wheel Guards				5	5	Minor plow scrapes.
(Curb Type : Standard)						
(Type : TREATED TIMBER)						
(Thickness(mm) : 100)						
(Width(mm) : 305)						
Bridge Rail		8	7	Steel channel 255mm x 65mm, not continuous between spans.		
(Type : STEEL BRIDGE TUBE)						
Bridge Rail Posts/Blocking		8	7	75 x 75 angle clips & steel end posts.		
(Type : POST STEEL;POST STEEL)						
Bridge Rail/Posts Coating		4	5	Some superficial corrosion.		
(Type : PAINT)						
Sidewalk		X	X			

Superstructure						
Bridge Component				Last	Now	Explanation of Condition
(Primary Span : PT, 4 Spans, Lengths(m): 6.1-30.5-8.5-6.1, A-Ident Number: A0629-01)						
Wide Load Damage (Y/N)		Yes				Minor dent of lower inside flange at U4 of U3U4N. 2 open holes U3L4N at rail height. 13/bay. 6 bays.
Top Chord				8	7	
Batter Posts				8	8	
Diagonals				8	8	
Verticals				8	8	
Connections				8	7	
Floor Beams				8	8	
Bottom Chord				8	8	
Lateral Bracings				8	8	
(No. of Stringers : 78)						
Stringer Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last						
Now						
Stringers				8	7	
(Type : STEEL)						
(Width(mm) : 165)						
(Depth(mm) : 305)						
(Spacing(mm) : 609)						
Paint Condition				5	5	(Painted 1993) Minor edge of flange corrosion @ floor system. Some corrosion @ connections.
(Colour Description :)						
(Colour Code :)						
Touchup Required (Y/N)		No				
Bearings				7	7	(Fully expanded @ west pier. 28Sep2009).
Temperature (deg. C)		-5				
(Expansion Type : DISC & DOME BEARING)						
(Fixed Type : PINNED BEARING)						
Functioning (Y/N)		Yes				
Sub Deck/Deck Underside				6	6	
(Material Type : TREATED TIMBER)						
(Plank Thickness(mm) : 100)						
(Plank Width(mm) : 300)						
Defects (Percent Area)		0				
Span Alignment Problems						
Vertical (Y/N)		No				
Horizontal (Y/N)		No				
Superstructure General Rating				6	6	
Superstructure						
Bridge Component				Last	Now	Explanation of Condition
(Secondary Span : TT)						
Special Features						
Special Feature					X	
(Type :)						
Special Feature					X	
(Type :)						
Wearing Surface/Deck Top Detail Ratings						
	N (%)	1 (%)	2 (%)	3 (%)		
Last						
Now	0.0	0.0	0.0	0.0		

Superstructure								
Bridge Component				Last	Now	Explanation of Condition		
(Secondary Span : TT)								
Wearing Surface/Deck Top				4	4	Some plank ends showing signs of rot & wear, still functional.		
(Material Type : UNTREATED TIMBER)								
(Plank Thickness(mm) : 75)								
(Plank Width(mm) : 305)								
Deck Rideability				6	6			
Wheel Guards				5	5	Minor plow scrapes.		
(Curb Type : Standard)								
(Type : TREATED TIMBER)								
(Thickness(mm) : 100)								
(Width(mm) : 305)								
Bridge Rail				5	5	Double layer. Not attached to PT rails.		
(Type : GALVANIZED STEEL W-BEAM)								
Bridge Rail Posts				5	5	Corrosion around some bolt holes on West flexbeam.		
(Type : TREATED TIMBER;TREATED TIMBER;TREATED TIMBER;TREATED TIMBER)								
Bridge Rail/Posts Coating				6	6			
(Type : GALVANIZED;CREOSOTE)								
(No. of Stringers : 25;17;27)				S1-27; S3-17; S4-25 (Substandard for 28' span 25 lines).				
Stringer Detail Ratings								
	N (count)	1 (count)	2 (count)				3 (count)	
Last								
Now	0	0	0				0	
Stringers							5	5
(Type : TREATED TIMBER)								
(Width(mm) : 150)								
(Depth(mm) : 350)								
(Spacing(mm) : 320)								
Space varies from 300 to 380, avg. at 320mm.								
Sub Deck/Deck Underside				6	6	S3 sawcut in S int. stringer @ P3. No deterioration.		
(Material Type : TREATED TIMBER)								
(Plank Thickness(mm) : 75)								
(Plank Width(mm) : 300)								
Defects (Percent Area)	0							
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								
(Extended Backwall Piles (Y/N) : Y)								
(Extended Backwall Piles Spacing(mm) : 1600)								

Substructure					
Bridge Component		Last	Now	Explanation of Condition	
(Total Number of Caps/Corbels : 3:3)					
Bearing Seats/Caps/Corbels Detail Ratings					
	N (count)	1 (count)	2 (count)	3 (count)	
Last					
Now	0	0	0	0	
Bearing Seats/Caps/Corbels				5	5
(Type : TREATED TIMBER)					
(Depth(mm) : 250)					
(Width(mm) : 250)					
Backwalls/Breastwalls				6	5
Greatest Height (m)		2.00			
Wingwalls				7	6
(Total Number of Bearing Piles : 6:6)					
Piles Detail Ratings					
	N (count)	1 (count)	2 (count)	3 (count)	
Last					
Now	0	0	0	0	
Piles				6	6
Paint/Coating				X	X
Abutment Stability				6	5
Scour/Erosion				4	4
5m long x 1m wide x .1m deep erosion @ West headslope.					
Piers/Bents					
(Type : PIER-COLUMN)					
Concrete @ U/S P2.					
(Total Number of Caps/Corbels : 18:18:3)					
2 row piles - P1 & 2; P3 single row of 6 piles with 250 x 250 T.T. cap.					
Bearing Seats/Caps/Corbels Detail Ratings					
	N (count)	1 (count)	2 (count)	3 (count)	
Last					
Now	0	0	0	0	
Bearing Seats/Caps/Corbels				7	6
(Type : TREATED TIMBER)					
(Depth(mm) : 305)					
(Width(mm) : 305)					
(Total Number of Bearing Piles : 22:22:6)					
Piles Detail Ratings					
	N (count)	1 (count)	2 (count)	3 (count)	
Last					
Now	34	0	0	0	
Pier Shaft/Piles				4	4
Greatest Height (m)		3.50			
One non bearing cluster pile not fully bearing @ SW of W pier. P1 piles are tied back to A1. Missing outer section in P3P3. P3p3,44 are bowed laterally - photo. Piles at P1,2 are covered by sheathing.					
Bracing/Struts/Sheathing				3	3
Missing/insufficient @ P1, not low enough.					
Nose Plate				5	5
Paint/Coating				4	4
P2 not painted, nose plate.					
(Colour Description :)					
(Colour Code :)					
Pier Stability				5	5
(Anchored W pier to abut. March '93). W pier swept 300mm @ center towards stream. Slight movement from monitoring marks @ W abut to W pier.					
Scour				4	4
Scouring/erosion @ P1.					

Substructure				
Bridge Component		Last	Now	Explanation of Condition
Debris (Y/N)	No			
Substructure General Rating		4	4	
Structure Usage				
		Last	Now	Explanation of Condition
Channel				
(U/S Direction : S)				5.7m deck to water. 7.0m deck to S.B.
(D/S Direction : N)				
Alignment		7	6	
Bank Stability		5	4	Steep cut bank @ SW.
HWM (m below Top of Curb)	3.3			
Drift (Y/N)	No			
Slope Protection		3	3	Eroded @ West headslope exposing tie back wires - photo. Trees @ South side banks.
(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		3	3	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
REPAIR/REPLACE BRIDGE RAIL							
RETROFIT BRIDGE RAIL							
PATCH DECK	2012	Patch 5% fo deck where rotten.					
REPLACE STRIP DECK							
REPLACE SUB DECK							
RESET/ PAINT BEARINGS							
REPAINT SUPERSTRUCTURE							
STRAIGHTEN/REPLACE MEMBERS							
WASHING							
CORE TIMBER CAPS/CORBELS							
REPAIR/REPLACE TIMBER CAPS							
REPAIR ABUTMENT SCOUR/EROSION	2012	Repair A1 headslope.					
PLACE ADDITIONAL RIP RAP	2012	25m3 Class 1 @ west toe, stream side of P1 piles & lower sheathing.					
REMOVE DRIFT ACCUMULATION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	50.0/50.0	Sufficiency Rating (Last/Now) (%)	55.7/55.1	Est. Repl. Yr	2026	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	Dave Lam		Previous Assistant's Name				
Next Inspection Date	15-May-2015		Previous Inspection Date	28-Sep-2009			
Inspection Cycle (Default) (months)	39						
Comment							