

Bridge Inspection										
Bridge File Number	76099 -1 Bridge					Form Type	TH			
Year Built/Year Supstr	1913/1912					Lot No.	2			
Bridge or Town Name	SUNDRE					Inspector Name	Owen Salava			
Located Over	RED DEER RIVER, 3, WATERCRS-ST					Inspector Class	BR CLS A			
Located On	734:12 C1 0.025					Assistant Name				
Water Body Cl./Year						Assistant Class				
Navigabil. Cl./Year						Inspection Date	29-Nov-2010			
Legal Land Location	NE SEC 13 TWP 31 RGE 10 W5M					Data Entry By	Marcia Chavez			
Longitude, Latitude	-115:17:13, 51:39:25					Data Entry Date	02-Mar-2011			
Road Authority	Alberta Transportation (AIT)					Reviewer Name	John O'Brien			
Contract Main. Area	CMA18					Review Date	22-Feb-2011			
Clear Roadway/Skew	4.8 / 0 deg.					Dept. Reviewer Name	Chris Black			
AADT/Year	100 / 2009 (A)					Dept. Review Date	04-Mar-2011			
Road Classification	RCU-208G-90					Follow-Up By				
Detour Length (km)	80									
Allowable Load (t):	Single	CS1 21			Semi	CS2 37		Train	CS3 56 STRINGER	----> On Critical Spans ---->Critical Member
Design Loading:	HS20									----> Primary Span

Posting Information												
Required Vert. Clearance Posting (m)					ON: 6.0m							
Posted Vertical Clearance (Y/N)					Yes							
Posted:	Lane	NB	On Bridge (m)	6.0	In Advance (Y/N)	Yes	Lane	SB	On Bridge (m)	6.0	In Advance (Y/N)	No
Remarks												
Required Load Posting (t)			Single	21	Semi	37	Truck Train	57				
Posted Loading (t)			Single	21.0	Semi	37.0	Truck Train	57.0				
Posted:	Lane	NB	At Junction (Y/N)	Yes	In Advance (Y/N)	Yes	At Bridge (Y/N)	Yes				
Posted:	Lane	SB	At Junction (Y/N)	Yes	In Advance (Y/N)	Yes	At Bridge (Y/N)	Yes				
Remarks												
May require lower posting due to North abutment bearing / cap failure.												
Hazard Marker At Bridge (Y/N)		Yes										
Remarks		At varying heights, cracked NW hazard marker.										
Other Sign Types		Red Deer River, Steep Hill, Stop for Oncoming, Single Lane Bridge.										

Utilities (Located at)									
Utility Attachments	TELEPHONE UTILITIES-PHONE LINE								
Telephone	On bottom chord - West truss.					Gas			
Power						Municipal			
Others						Problem (Y/N)	No		
Remarks									
One clamp for conduit fallen off near South abutment - photo.									

Approach Road				
		Last	Now	Explanation of Condition
Horizontal Alignment		3	3	Hairpin curve North with 'Y' intersection. 'T' intersection 50m SW.
Vertical Alignment		5	5	
Roadway Width (m)	6.800			Broken post at NW corner. Incorrect laps at exiting ends. Not attached at NW B5 post (photo).
Approach Bump		5	5	
Guardrail (Y/N)	Yes			
Guardrail		3	3	
Length (m)	8.000			
Current Standard (Y/N)	No			
Termination Type	TURNED DOWN			
Drainage		5	5	
Approach Road General Rating		3	3	

Superstructure						
Bridge Component		Last	Now	Explanation of Condition		
(Primary Span : TH, 1 Spans, Lengths(m): 61, A-Ident Number: A0103-06)						
Special Features						
Special Feature			X			
(Type :)						
Special Feature			X			
(Type :)						
Wearing Surface/Deck Top Detail Ratings						
	N (%)	1 (%)	2 (%)	3 (%)	Appears to be EKKI wood in good condition.	
Last	100	0	0	0		
Now	90.0	0.0	0.0	0.0		
Wearing Surface/Deck Top				N	N	(Ends worn due to gravel tracking onto deck. Some isolated rot. photos 2,4 & 5 deck wearing in wheelpaths. 20Dec2006). (Deck not draining water. 22Jun2010). Snow covered.
(Material Type : EKKI WOOD)						
(Plank Thickness(mm) : 75)						
(Plank Width(mm) : 150)						
Deck Rideability			5	5		
Deck Joints			X	X		
Temperature (deg. C)		-10				
(Expansion Type :)						
(Fixed Type :)						
Gap Size (mm)		Gap Location				
Curbs/Wheel Guards			6	N	(2 to 7 ext holes drilled around each bolt. Gravel windrows inhibit drainage. 22Jun2010). Snow covered.	
(Curb Type : Standard)						
(Type : TREATED TIMBER)						
(Thickness(mm) : 150)						
(Width(mm) : 250)						
Bridge Rail			4	4	Double layer, improper splice (not to std S-1405). Missing 65 splice bolts. Splices located away from posts. Steel post broken off @ U1L1W but replaced by TT block. Rail only - peeling to coat.	
(Type : GALVANIZED STEEL FLEX BEAM)						
Bridge Rail Posts/Blocking			5	5		
(Type : GALVANIZED POST STEEL;GALVANIZED POST STEEL)						
Bridge Rail/Posts Coating			4	4		
(Type : PAINT)						
Sidewalk			X	X		

Superstructure						
Bridge Component				Last	Now	Explanation of Condition
(Primary Span : TH, 1 Spans, Lengths(m): 61, A-Ident Number: A0103-06)						
Wide Load Damage (Y/N)	Yes				Minor nick NE batter post. Bend at N portal. Minor dings to bracing. L0U1E has dented coverplate. (Missing 4 bolts at U7E. Open holes at U1W brace connections from original configuration. Diagonals U1L2W - no visible crack at bottom, though paint at connection has stress lines. Blistering @ connections, typical. Clip angles too short so bolts missing from gussets at U5E & open hole at U7E gusset. U7U7 has 10x200mm bend to back channel. 22Jun2010). L4L4 missing bolt at L4W. 2 outside channels 85 x 385. Butt weld splice @ LOL1W & L7L8W. 12/bay x 385. Retrofit stringers: 170x325mm at 870mm spacing.	
High Load Damage (Y/N)	Yes					
Top Chord			6	6		
Batter Posts			5	5		
Sway Bracings			5	5		
Diagonals			5	5		
Verticals			5	5		
Portals			4	4		
Connections			4	4		
Floor Beams			7	7		
Bottom Chord			6	6		
(No. of Stringers : 96)						
Stringer Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last						
Now						
Stringers			5	5		
(Type : STEEL)						
(Width(mm) : 140)						
(Depth(mm) : 385)						
(Spacing(mm) : 870)						
Paint Condition			3	3	80% paint failure, mostly in splash zone & below deck and at portals. Blue.	
(Colour Description :)						
(Colour Code :)						
Touchup Required (Y/N)	Yes					
Bearings			4	4	S expansion bearing & NW A/Bs are bent. Both overextended with rollers moving out from under bridge bearing plates & covered with gravel & snow. A1 S. A2 N.	
Temperature (deg. C)	-10					
(Expansion Type : ROLLER NEST BEARING)						
(Fixed Type : PINNED BEARING)						
Functioning (Y/N)	Yes					
Sub Deck/Deck Underside			7	7		
(Material Type : TREATED TIMBER)						
(Plank Thickness(mm) : 100)						
(Plank Width(mm) : 300)						
Defects (Percent Area)	2					
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) : N)						
(Extended Backwall Piles Spacing(mm) :)						
The fixed bearing needed more room so backwall was chipped out. Truss is now jammed again. Recast N abut Dec/2006.						

Substructure						
Bridge Component		Last	Now	Explanation of Condition		
(Total Number of Caps/Corbels :)						
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 : CONCRETE)						
(Depth(mm) :)						
(Width(mm) :)						
Backwalls/Breastwalls			5	5		
Greatest Height (m)		1.20		2m2 delam at NW corner & backwalls chipped out behind fixed bearing at N abut.		
Wingwalls			4	N (Not low enough. Large fill exposed at SW. 22Jun2010).		
(Total Number of Bearing Piles : 0:0)						
Piles Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last	100	0	0	0		
Now	100	0	0	0		
Piles			N	N		
Paint/Coating			X	X		
Abutment Stability			6	6		
Scour/Erosion			7	7		
Piers/Bents						
(Type :)						
(Total Number of Caps/Corbels :)						
Bearing Seats/Caps/Corbels Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last						
Now						
Bearing Seats/Caps/Corbels			X	X		
(Type :)						
(Total Number of Bearing Piles :)						
Piles Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last						
Now						
Pier Shaft/Piles			X	X		
Greatest Height (m)						
Bracing/Struts/Sheathing			X	X		
Nose Plate			X	X		
Paint/Coating			X	X		
(Colour Description :)						
(Colour Code :)						
Pier Stability			X	X		
Scour			X	X		
Debris (Y/N)		Yes		Old pier concrete under bridge.		

Substructure				
Bridge Component		Last	Now	Explanation of Condition
Substructure General Rating		6	6	
Structure Usage				
		Last	Now	Explanation of Condition
Channel				
(U/S Direction : W)				
(D/S Direction : E)				
Alignment		7	7	
Bank Stability		7	7	
HWM (m below Top of Curb)				HWM not visible.
Drift (Y/N)	Yes			Old piers. Med. to large drift along banks.
Slope Protection		7	7	
(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	7	

Maintenance Recommendations						
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
REPAIR/REPLACE BRIDGE RAIL	2011	Upgrade to triple layer or thrie beam.				
RETROFIT BRIDGE RAIL						
SEAL CURBS						
PATCH DECK	2011	Patch deck if defects found after cleaning bridge.				
SEAL DECK						
OVERLAY DECK						
REPLACE STRIP DECK						
REPLACE SUB DECK						
RESET/ PAINT BEARINGS	2011	Wash, reset bearings, rehabilitate bearings.				
REPAINT SUPERSTRUCTURE						
STRAIGHTEN/REPLACE MEMBERS	2011	Straighten U7U7 & coverplate along L0U1E.				
WASHING	2011	Wash deck, bearings & lower members.				
SHOTCRETE REPAIRS						
CORE TIMBER CAPS/CORBELS						
REPAIR/REPLACE TIMBER CAPS						
REPAIR ABUTMENT SCOUR/EROSION						
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION						
OTHER ACTION	2011	Install vertical clearance signs in advance, both directions (2). abutment(1).				
OTHER ACTION	2011	Replace NW hazard marker & reinstall all to meet std height.				
OTHER ACTION	2011	Clean & wash bridge.				
OTHER ACTION	2011	Upgrade guardrail to meet standard.				
OTHER ACTION	2011	Replace clip angles & extra bolt at U5L4E at U5E.				
OTHER ACTION	2011	Install bolts at U7E to top chord, U7L6E gusset, U1W bracing & L4W floorbeam.				
OTHER ACTION	2011	Patch breastwall below NW bearing.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
Structural Condition Rating (Last/Now) (%)	55.6/55.6	Sufficiency Rating (Last/Now) (%)	38.7/38.7	Est. Repl. Yr	2025	Maint. Req. (Y/N) Yes

Special Comments for Next Inspection	No action on paint for now. Photos from June 2010 UT included as additional attachment.		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	Owen Salava	Previous Assistant's Name	Bryce Clayton		
Next Inspection Date	28-Feb-2014	Previous Inspection Date	22-Jun-2010		
Inspection Cycle (Default) (months)	39				
Comment					