

Bridge Inspection										
Bridge File Number	75331 S-1 Bridge					Form Type	CON			
Year Built/Year Supstr	1962/1962					Lot No.	2			
Bridge or Town Name	RED DEER					Inspector Name	Owen Salava			
Located Over	2:24 R1 25.268					Inspector Class	BR CLS A			
Located On	RAMP 47-1 A					Assistant Name				
Water Body Cl./Year						Assistant Class				
Navigabil. Cl./Year						Inspection Date	18-Mar-2013			
Legal Land Location	NE SEC 32 TWP 37 RGE 27 W4M					Data Entry By	Marcia Chavez			
Longitude, Latitude	-113:48:54, 52:13:41					Data Entry Date	28-Mar-2013			
Road Authority	Alberta Transportation (AIT)					Reviewer Name	John O'Brien			
Contract Main. Area	CMA19					Review Date	27-Mar-2013			
Clear Roadway/Skew	12.2 / -29 deg. (LHF)					Dept. Reviewer Name	Chris Black			
AADT/Year	6,000 / 2003 (E)					Dept. Review Date	09-Apr-2013			
Road Classification	RLU-208-100					Follow-Up By				
Detour Length (km)	2									
Allowable Load (t):	Single	CS1 36 DECK			Semi	CS2 49		Train	CS3 70 DECK	----> On Critical Spans ---->Critical Member
Design Loading:	HS20									----> Primary Span

Posting Information										
Required Vert. Clearance Posting (m)					UNDER: 2 R1 5.2m					
Posted Vertical Clearance (Y/N)					Yes					
Posted:	Lane	NB	On Bridge (m)	5.2	In Advance (Y/N)	Yes	Lane	SB	On Bridge (m)	In Advance (Y/N)
Remarks										
Required Load Posting (t)					Single		Semi		Truck Train	
Posted Loading (t)					Single		Semi		Truck Train	
Posted:	Lane	NB	At Junction (Y/N)		In Advance (Y/N)		At Bridge (Y/N)			
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)		No							
Remarks									
Other Sign Types									

Utilities (Located at)										
Utility Attachments										
Telephone	No markers.					Gas				
Power	East r/w.					Municipal				
Others	Light standard East side.					Problem (Y/N)	No			
Remarks										

Approach Road									
				Last	Now	Explanation of Condition			
Horizontal Alignment				6	6	On crest curve.			
Vertical Alignment				8	8				
Roadway Width (m)		12.000				(Minor ACP wear at abutment 2 joint. 13Sep2011).			
Approach Bump				5	6				
Guardrail (Y/N)		Yes							
Guardrail				7	7				
Length (m)		99.000							
Current Standard (Y/N)		No				Approach rails not attached to bridge and insufficient posts. Not thrie beam.			
Termination Type		Turn Down							
Drainage				4	4	Erosion starting @ NW & SE corners - photos.			
Approach Road General Rating				6	6				

Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Primary Span : CV, 3 Spans, Lengths(m): 14.3-16.5-12.8, A-Ident Number:)					
Special Features					
Special Feature			X		
(Type :)					
Special Feature			X		
(Type :)					
Wearing Surface/Deck Top Detail Ratings					
	N (%)	1 (%)	2 (%)	3 (%)	Snow covered by curbs.
Last	0	0	0	0	
Now	40.0	0.0	0.0	0.0	
Wearing Surface			6	6	Hairline map cracking.
(Material Type : CONCRETE)					
(Thickness(mm) : 50)					
Deck Top			N	N	
Deck Rideability			8	8	
Deck Joints			3	5	Staining on cap, looks OK, no fresh leaking apparent.
Temperature (deg. C)		-13			
(Expansion Type : GLAND (WABO-MAUER, TRANSFLEX, ETC))					
(Fixed Type :)					
Gap Size (mm)		Gap Location			
74		N. abut			
76		S. abut			
Deck Drainage			4	4	(Groove cut in West gutter parallel to curb to drain water. 13Sep2011). Some rust stains on breastwalls & corner erosion at edges of breastwalls.
Drains Clogged (Y/N)		No			
Curbs/Median			5	5	(2 small popouts West curb face - photo. 113Sep2011). Minor high load damage @ East - photo.
(Curb Type : Standard)					
Scaling (Percent Area)		1			
Bridge Rail			6	6	WP2 has nick near base. W2 & 3 have minor bent verticals. SE parapet has wide cracks. Not enough thread showing on 50% of anchor bolts. 1-2 threads.
(Type : GALVANIZED STEEL VERTICAL BAR)					
Bridge Rail Posts			4	4	
(Type : GALVANIZED POST STEEL;GALVANIZED POST STEEL)					
Bridge Rail/Posts Coating			7	7	
(Type : GALVANIZED)					
Sidewalk			X	X	
Girders			7	7	High load damage at East edge. Spall at unknown element along SE fascia.
Diaphragms/Cross Frame			X	X	
Bearings			7	7	
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			6	4	Cast in place. Isolated hairline vertical cracks with efflorescence @ E fascia; the odd hairline crack has seepage coming through. S1,3 some corrosion staining. Cracks at SW corner with delam starting.
Stains (Percent Area)		1			

Superstructure				
Bridge Component		Last	Now	Explanation of Condition
(Primary Span : CV, 3 Spans, Lengths(m): 14.3-16.5-12.8, A-Ident Number:)				
Span Alignment Problems				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			
Superstructure General Rating		6	4	
Substructure				
Bridge Component		Last	Now	Explanation of Condition
Abutments				
Bearing Seats		8	8	
Backwalls/Breastwalls		8	8	Rust stains down breastwalls from leaky joints.
Wingwalls		5	5	
Piles		N	N	
Paint/Coating		7	7	
Abutment Stability		7	7	
Scour/Erosion		X	4	Erosion along wingwalls.
Piers/Bents				
(Type : PIER-COLUMN)				Corrosion spotting in caps at chair locations.
Bearing Seats/Caps		8	7	
(Type : CONCRETE)				
Pier Shaft/Piles		8	6	Dirty. Minor scale, E column at S pier.
Nose Plate		X	X	
Paint/Coating		X	X	
(Colour Description :)				
(Colour Code :)				
Pier Stability		8	8	
Scour		X	X	
Debris (Y/N)	No			
Substructure General Rating		7	6	
Structure Usage				
		Last	Now	Explanation of Condition
Grade Separation				
Road Alignment		6	6	In curve.
Traffic Safety Features		6	4	Some are creased, 1 section torn at NE rail.
Type	Guardrails			
Slope Protection		7	7	North settled 100 out 0. SE settled 90 out 0.
(Type : CONCRETE; CONCRETE)				
Bank Stability		6	6	
Drainage		8	7	Erosion at NW wingwall under slope protection.
Grade Separation General Rating		6	4	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
REPAIR/REPLACE BRIDGE RAIL	2013	Extend anchor bolts; patch parapet.					
GALVANIZE/PAINT BRIDGE RAIL							
RETROFIT BRIDGE RAIL							
SEAL CURBS							
PATCH DECK							
SEAL DECK							
OVERLAY DECK							
REPAIR/REPLACE DECK JOINTS							
RESET/ PAINT BEARINGS							
WASHING							
SHOTCRETE REPAIRS							
REPAIR ABUTMENT SCOUR/EROSION	2013	Patch corner erosion, 0.2m3 pitrun.					
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION							
OTHER ACTION	2013	Replace 1 section guardrail at NE.					
OTHER ACTION	2013	Patch deck delam at SW, 0.1m3 OH-V.					
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	72.2/55.6	Sufficiency Rating (Last/Now) (%)	67.1/57.9	Est. Repl. Yr	2021	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	No action for deck drainage.		Department Comments				
Maintenance Reviewed By			Date			Estimated Total	0
Proposed Long-Term Strategy	Consideration should be given to removing bridge and not providing access to Hwy 2 S directly from Gatez Ave. Alternate access includes 30 & 40th Ave and Taylor Drive. RS						
On 3-Year Program (Y/N)							
Proposed Action							
Previous Inspector's Name	Owen Salava	Previous Assistant's Name					
Next Inspection Date	18-Dec-2014	Previous Inspection Date	13-Sep-2011				
Inspection Cycle (Default) (months)	21						
Comment							