

Bridge Inspection							
Bridge File Number	76378 -1 Bridge			Form Type	SG		
Year Built/Year Supstr	1971/1971			Lot No.	4		
Bridge or Town Name	ENTRANCE			Inspector Name	Shane Hall		
Located Over	CNR			Inspector Class	BR CLS A		
Located On	40:30 C1 3.435			Assistant Name			
Water Body Cl./Year				Assistant Class			
Navigabil. Cl./Year				Inspection Date	17-Oct-2012		
Legal Land Location	NW SEC 6 TWP 51 RGE 25 W5M			Data Entry By	Theresa Lacusta		
Longitude, Latitude	-117:40:38, 53:22:40			Data Entry Date	26-Nov-2012		
Road Authority	Alberta Transportation (AIT)			Reviewer Name	Eric Carcoux		
Contract Main. Area	CMA13			Review Date	19-Nov-2012		
Clear Roadway/Skew	11 / -56 deg. (LHF)			Dept. Reviewer Name	Brent Herrick		
AADT/Year	2,040 / 2011 (A)			Dept. Review Date	21-Dec-2012		
Road Classification	RAU-209-110			Follow-Up By			
Detour Length (km)	420						
Allowable Load (t):	Single	CS1 60 GIRDER	Semi	CS2 76 GIRDER	Train	CS3 92 GIRDER	----> On Critical Spans ---->Critical Member
Design Loading:	HS20				----> Primary Span		

Posting Information												
Required Vert. Clearance Posting (m)												
Posted Vertical Clearance (Y/N)												
Posted:	Lane	NB	On Bridge (m)		In Advance (Y/N)	No	Lane	SB	On Bridge (m)		In Advance (Y/N)	
Remarks	Not required.											
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)	No	At Bridge (Y/N)	No				
Remarks	Not required.											
Hazard Marker At Bridge (Y/N)		Yes										
Remarks												
Other Sign Types		Information, Slippery Road.										

Utilities (Located at)				
Utility Attachments				
Telephone	West r/w.		Gas	
Power			Municipal	
Others	CN commun. along tracks underneath structure		Problem (Y/N)	No
Remarks				

Approach Road				
		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Intersection to entrance 60m south. Grade rises to south.
Vertical Alignment		7	6	
Roadway Width (m)		8.700		Insufficient posts. No blocking on posts off bridge, typical all corners. SW - 42 M length; NE,NW & SE - 99m. Not thrie beam transition.
Approach Bump		7	7	
Guardrail (Y/N)		Yes		
Guardrail		4	5	
Length (m)		45.200		
Current Standard (Y/N)		No		
Termination Type		Turned Down		
Drainage		4	5	
Approach Road General Rating		7	6	

Superstructure						
Bridge Component		Last	Now	Explanation of Condition		
(Primary Span : RB, 3 Spans, Lengths(m): 21.3-27.4-21.3, A-Ident Number: A0650-01)						
Special Features						
Special Feature			X			
(Type :)						
Special Feature			X			
(Type :)						
Wearing Surface/Deck Top Detail Ratings						
	N (%)	1 (%)	2 (%)	3 (%)		
Last	90	0	0	0		
Now						
Wearing Surface			5	5	Chip sealed over FRC. 5% peeled, mostly along c/l.	
(Material Type : CONCRETE - CONVENTIONAL CHIP SEAL COAT)						
(Thickness(mm) : 50)						
Deck Top			N	N	Visible along shoulders only.-May 23, 2009	
Deck Rideability			7	7		
Deck Joints			3	4	3 holes corroded through SE joint curb cover plate.	
Temperature (deg. C)		3				
(Expansion Type : FINGER PLATES)						
(Fixed Type : GLAND (WABO-MAUER, TRANSFLEX, ETC))						
Gap Size (mm)		Gap Location				
30		S. Abut. (A1)				
74		N. Abut. (A2)				
Deck Drainage			4	6	Bridge is on a good grade to the North. No deck drains. No deck drains	
Drains Clogged (Y/N)		No				
Curbs/Median			6	6	Light scaling.	
(Curb Type : Standard)						
Scaling (Percent Area)		5				
Bridge Rail			4	7	Insufficient thread length at post bases, both sides. Approx 5% of bolts.	
(Type : GALVANIZED STEEL BRIDGE TUBE)						
Bridge Rail Posts			4	4	60% paint peeling off galvanized. Galvanizing in good condition.	
(Type : GALVANIZED POST STEEL; GALVANIZED POST STEEL)			Rating based on condition of galv.			
Bridge Rail/Posts Coating			5	6		
(Type : PAINT)						
Sidewalk			X	X		
Girder/Beam						
Cover Plate			7	7	Stiffeners over bearings.	
Flange			7	7		
Web			7	7		
Stiffeners			7	7		
Splice			7	7		
Weld			7	7		
Diaphragms/Cross Frame			5	5	One diaphragm bent over RR tracks. 125mm sideways, 10mm up - still functional.	

Superstructure				
Bridge Component		Last	Now	Explanation of Condition
(Primary Span : RB, 3 Spans, Lengths(m): 21.3-27.4-21.3, A-Ident Number: A0650-01)				
Paint Condition		6	6	
(Colour Description : GREEN)				
(Colour Code : 503-113)				
Touchup Required (Y/N)	No			
Bearings		4	4	8 anchor boltsbroken @ N. Abut.(A2). Remaining ABs @ A2 are distorted due to bridge skew & steep grade. Grout pads cracked/delam. Missing AB nut @ P1G1 bearing. Bearing pad appears distorted due to corrosion buildup on stainless steel plate at A1.-photo All bearing pads at A2 distorted due to corrosion and bridge rotation.
Temperature (deg. C)	3			
(Expansion Type : REINFORCED NEOPRENE BEARING WITH TEFLON AND STAINLESS STEEL)				
(Fixed Type : REINFORCED PAD BEARING)				
Coating Adequate (Y/N)	No			
Functioning (Y/N)	Yes			
Deck Underside		4	5	Transverse cracking with staining at Sp. 2. Also stained by train exhaust.
Stains (Percent Area)	5			
Span Alignment Problems				
Vertical (Y/N)	No			Steep grade has everything pushed North, est 15mm. Skew pressures pushing abutments west approx 10mm.
Horizontal (Y/N)	Yes			
Superstructure General Rating		4	4	
Substructure				
Bridge Component		Last	Now	Explanation of Condition
Abutments				
Bearing Seats/Caps		6	5	Narrow to medium vertical cracks under bearins locations at A1 & A2.
(Type : CONCRETE)				
Backwalls/Breastwalls		5	5	
Wingwalls		6	6	
Piles		N	N	
Paint/Coating		5	5	
Abutment Stability		7	7	
Scour/Erosion		7	7	
Piers/Bents				
(Type : PIER-COLUMN)				Delam & cracking @ ends of pier 2, close to bearing locations. Scaling @ top of P2 East side.
Bearing Seats/Caps		5	4	
(Type : CONCRETE)				Minor scaling at pier 1, pile 4.
(Total Number of Bearing Piles : 4:4)				
Pier Shaft/Piles		6	5	
Bracing/Struts/Sheathing		X	X	
Nose Plate		X	X	
Paint/Coating		5	5	Minor peeling in isolated areas. Grey.
(Colour Description :)				
(Colour Code :)				
Pier Stability		7	7	
Scour		7	7	
Debris (Y/N)	No			

Substructure				
Bridge Component		Last	Now	Explanation of Condition
Substructure General Rating		5	4	
Structure Usage				
		Last	Now	Explanation of Condition
Grade Separation				
Road Alignment		X	X	CNR mainline double track.
Traffic Safety Features		X	X	
Type	None			
Slope Protection		5	4	Metal binwall South side only. Corrosion @ center bay with numerous perforations. 75mm horizontal displacement @ top of bin due to buckled stringers.
(Type : NATURAL; NATURAL)				
Bank Stability		5	5	
Drainage		7	7	
Grade Separation General Rating		5	4	

Maintenance Recommendations						
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
REPAIR/REPLACE BRIDGE RAIL	2013	Install 4 sleeve bolts(carried over from AT audit inspection).				
GALVANIZE/PAINT BRIDGE RAIL						
RETROFIT BRIDGE RAIL						
SEAL CURBS						
PATCH DECK	2013	Repair/patch spalled along u/s @ NE corner @ underside of North joint.(carried over from AT audit inspection)				
SEAL DECK						
OVERLAY DECK						
REPAIR/REPLACE DECK JOINTS	2013	Repair/reweld broken & cracked fingers in finger plate assembly @ A1.(carried over from AT audit inspection.)				
RESET/ PAINT BEARINGS						
REPAINT SUPERSTRUCTURE						
STRAIGHTEN/REPLACE MEMBERS						
WASHING						
SHOTCRETE REPAIRS	2013	Annually deck, gutters and flush vlean backwall trough drains.(carried over from AT audit inspection)				
REPAIR ABUTMENT SCOUR/EROSION						
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION						
OTHER ACTION	2013	Seal all abutment/pier caps.				
OTHER ACTION	2013	Patch delam/potholes in South abutment paving lip.(carried over from AT audit inspection)				
OTHER ACTION	2013	Replace 1 split TT post on SE approach rail(carried over from AT audit inspection)				
OTHER ACTION	2013	Consider repair/reweld stainless plates along bottom flange @ 3 brg. locations on A1.(carried over from AT audit inspection)				
OTHER ACTION	2013	Replace 6 broken AB's @ AZ.(carried over from AT audit inspection)				
OTHER ACTION	2013	Repair damaged retrofit plastic backwall trough drain @ A1.(carried over from AT audit inspection)				
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Maintenance Recommendations							
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OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	50.0/44.4	Sufficiency Rating (Last/Now) (%)	62.6/58.9	Est. Repl. Yr	2030	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Monitor bearings. Monitor binwall corrosion.			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	Wayne Cappellani		Previous Assistant's Name	Brent Herrick			
Next Inspection Date	17-Jul-2014		Previous Inspection Date	02-Oct-2012			
Inspection Cycle (Default) (months)	21						
Comment							