Bridge Inspection

Bridge File Number	79766 -1 Bridge	Form Type	PSR CON
Year Built/Year Supstr	1983/1983	Lot No.	2
		Inspector Name	Wade Nanninga
Bridge or Town Name	GENESEE	Inspector Class	BR CLS A
Located Over	LOCAL ROAD	Assistant Name	
Located On	770:04 C1 16.986	Assistant Class	
Water Body Cl./Year		Inspection Date	18-Oct-2012
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	NE SEC 24 TWP 50 RGE 3 W5M	Data Entry Date	24-Oct-2012
Longitude, Latitude	-114:18:14, 53:20:10	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	22-Oct-2012
Contract Main. Area	CMA11	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	11 /	Dept. Review Date	13-Nov-2012
AADT/Year	940 / 2011 (A)	Follow-Up By	
Road Classification	RCU-210-110		
Detour Length (km)	24		

Allowable Load (t):	Single	CS1 28	Semi	CS2 49	Train	CS3 62	---> On Critical Spans --->Critical Member	
Design Loading:		MS300					---> Primary Span	

Posting Information

Required Vert. Clearance Posting (m)											
Posted Vertical Clearance (Y/N)				Yes							
Posted:	Lane	EB	On Bridge (m)	8.1	In Advance (Y/N)	No	Lane	WB	On Bridge (m)	8.1	In Advance (Y/N)	No
Remarks	Hazard markers attached to girders.										

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)	No
Remarks	
Other Sign Types	No parking on bridge, Icy @ 0 degree.

Utilities (Located at)

Utility Attachments			
Telephone	East & West r/w.	Gas	
Power	4 wires East r/w	Municipal	
Others	Street lighting.	Problem (Y/N)	No
Remarks			

Approach Road

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Curves at both ends of bridge.
Vertical Alignment		6	6	Typical overpass crest curve. Limited sight distances.
Roadway Width (m)	11.000			
Approach Bump		6	6	
Guardrail (Y/N)	Yes			Wrinkles & tear @ SW turn down, still functional.
Guardrail		4	5	
Length (m)	87.000			
Current Standard (Y/N)	Yes			
Termination Type	Turned Down			
Drainage		4	4	Approach drainage running under NW, SW & SE wing and eroding fill.
Approach Road General Rating		**6**	**6**	

Superstructure

Bridge Component		Last	Now	Explanation of Condition
(Primary Span : **FM, 5 Spans, Lengths(m): 25-6-27-6-25, A-Ident Number:**)				
Special Features				
Special Feature			X	
(Type :)				
Special Feature			X	
(Type :)				
Wearing Surface/Deck Top Detail Ratings				
	N (%)	1 (%)	2 (%)	3 (%)
Last				
Now				
Wearing Surface		6	6	Chipseal peeled off rear pier joints/
(Material Type : **CONCRETE - CONVENTIONAL CHIP SEAL COAT**)				
(Thickness(mm) : **50**)				
Lateral Connection Problem (Y/N)	No			
Deck Top		N	N	
Deck Rideability		7	7	
Deck Joints		7	7	
Temperature (deg. C)	10			
(Expansion Type : **GLAND (WABO-MAUER, TRANSFLEX, ETC)**)				
(Fixed Type : **GLAND (WABO-MAUER, TRANSFLEX, ETC)**)				
Gap Size (mm)	Gap Location			
75	S. abutment			
80	Pier 1			
70	Pier 2			
70	Pier 3			
78	Pier 4			
78	N. abutment			
Deck Drainage		6	6	(Small bird baths along East side. Sept/08/03.)
Drains Clogged (Y/N)	No			
Curbs/Median		6	6	Several narrow vertical cracks.
(Curb Type : **JERSEY/F SHAPE**)				
Scaling (Percent Area)	5			
Bridge Rail		X	X	
(Type :)				
Bridge Rail Posts		X	X	
(Type :)				
Bridge Rail/Posts Coating		X	X	
(Type :)				
Sidewalk		X	X	
Girder Detail Ratings				
	N (count)	1 (count)	2 (count)	3 (count)
Last				2
Now				2
Girders		3	3	Typical FM cracks on top chamfer at ends. Patches @ ends of girders. High load damage to G1-G6 center span. Strands exposed G4-G5. G1 South span vertical crack @ North end - photo. G3/G6 South span vertical crack @ South end - photo. Patches @ girder ends.
Cracking (Y/N)	Yes			
Spalling (Percent Area)	0			
(Number Of Girders : **21**)				

Superstructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
(Primary Span : **FM, 5 Spans, Lengths(m): 25-6-27-6-25, A-Ident Number:**)				
Diaphragms/Cross Frame		7	7	
Bearings		7	7	
Temperature (deg. C)	10			
(Expansion Type : **REINFORCED PAD BEARING;REINFORCED NEOPRENE BEARING WITH TEFLON AND STAINLESS STEEL**)				
(Fixed Type : **REINFORCED PAD BEARING**)				
Coating Adequate (Y/N)	Yes			
Functioning (Y/N)	Yes			
Deck Underside		7	7	
Stains (Percent Area)	0			
Span Alignment Problems				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			
Superstructure General Rating		**3**	**3**	

Superstructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
(Secondary Span : **CV**)				
Special Features				
Special Feature			X	
(Type :)				
Special Feature			X	
(Type :)				
Wearing Surface/Deck Top Detail Ratings				

	N (%)	1 (%)	2 (%)	3 (%)
Last				
Now				

Wearing Surface		5	5	(Map cracking span 2 & 4 - photo. Sept/08/04) Covered with chipseal. Peeling near joints, couple square meters.
(Material Type : **CONCRETE - CONVENTIONAL CHIP SEAL COAT**)				
(Thickness(mm) : **50**)				
Deck Top		N	N	
Deck Rideability		7	7	
Deck Joints		7	7	
Temperature (deg. C)	10			
(Expansion Type : **GLAND (WABO-MAUER, TRANSFLEX, ETC)**)				
(Fixed Type : **GLAND (WABO-MAUER, TRANSFLEX, ETC)**)				

Gap Size (mm)	Gap Location

Deck Drainage		6	6	No drains.
Drains Clogged (Y/N)				
Curbs/Median		6	6	Several vertical cracks.
(Curb Type : **JERSEY/F SHAPE**)				
Scaling (Percent Area)	5			

Superstructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
(Secondary Span : **CV**)				
Bridge Rail		X	X	
(Type :)				
Bridge Rail Posts		X	X	
(Type :)				
Bridge Rail/Posts Coating		X	X	
(Type :)				
Sidewalk		X	X	
Girders		7	7	Cast in place section.
Diaphragms/Cross Frame		X	X	
Bearings		X	X	No bearings.
Temperature (deg. C)	10			
(Expansion Type : **REINFORCED PAD BEARING;REINFORCED NEOPRENE BEARING WITH TEFLON AND STAINLESS STEEL**)				
(Fixed Type : **REINFORCED PAD BEARING**)				
Coating Adequate (Y/N)				
Functioning (Y/N)				
Deck Underside		6	6	
Stains (Percent Area)				
Span Alignment Problems				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			
Superstructure General Rating		**6**	**6**	

Substructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
Abutments				
Bearing Seats		4	4	Wide vertical crack NW & c/l North abutment. Wide vertical crack SW & c/l, South abutment.
(Type : **CONCRETE**)				
Backwalls/Breastwalls		4	4	Wide crack NW, North abutment. Wide diagonal crack SW, South abutment.
Wingwalls		6	6	
Piles		N	N	
Paint/Coating		X	X	
Abutment Stability		5	5	
Scour/Erosion		7	7	
Piers/Bents				
(Type : **PIER-COLUMN**)				Wide vertical cracks @ South pier, East & West side cap & leg. Water stained or fascias likely due to poor jt/curb cover plate detail. Wide crack under drain @ NW.
Bearing Seats/Caps		4	3	
(Type : **CONCRETE**)				
(Total Number of Bearing Piles : **0:0:0:0**)				Wide vertical crack North pier East leg on North. 5 shafts/pier on common footing.-photo
Pier Shaft/Piles		4	3	
Bracing/Struts/Sheathing		X	X	
Nose Plate		X	X	

Substructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
Paint/Coating		6	6	
(Colour Description :)				
(Colour Code :)				
Pier Stability		8	6	Cracking in piers.
Scour		X	X	
Debris (Y/N)	No			
Substructure General Rating		**4**	**3**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Grade Separation				
Road Alignment		7	7	
Traffic Safety Features		7	7	
Type	Crash Wall			
Slope Protection		7	7	Pitrun.
(Type : **GRAVEL; GRAVEL**)				
Bank Stability		7	7	
Drainage		6	6	
Grade Separation General Rating		**7**	**6**	

Maintenance Recommendations

Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
REPAIR/REPLACE BRIDGE RAIL						
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						
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION						
OTHER ACTION	2012	Repair pier cap cracking.				
OTHER ACTION	2012	Repair high load damage.				
OTHER ACTION	2012	Seal hole @ SE corner.				
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**38.9/33.3**	**Sufficiency Rating (Last/Now) (%)**	**46.0/44.0**	Est. Repl. Yr	2038	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection	Monitor delam crcks in pier caps, abutments and pier shafts.	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	Arnold Assenheimer	Previous Assistant's Name			
Next Inspection Date	18-Jan-2016	Previous Inspection Date	05-May-2009		
Inspection Cycle (Default) (months)	39				
Comment					