Bridge Inspection

Bridge File Number	76633 -1 Bridge	Form Type	PSR
Year Built/Year Supstr	1968/1968	Lot No.	1
		Inspector Name	Brian Pientsch
Bridge or Town Name	HIGH LEVEL	Inspector Class	BR CLS A
Located Over	SOUSA CREEK, 9.21, WATERCRS-ST	Assistant Name	
Located On	58:04 C1 59.159	Assistant Class	
Water Body Cl./Year		Inspection Date	12-Jan-2012
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SW SEC 31 TWP 110 RGE 3 W6M	Data Entry Date	06-Feb-2012
Longitude, Latitude	-118:29:27, 58:35:30	Reviewer Name	Arnold Assenheimer
Road Authority	Alberta Transportation (AIT)	Review Date	06-Feb-2012
Contract Main. Area	CMA01	Dept. Reviewer Name	David Morrison
Clear Roadway/Skew	10.1 /	Dept. Review Date	04-Apr-2012
AADT/Year	740 / 2011 (A)	Follow-Up By	
Road Classification	RAU-212.0-110		
Detour Length (km)	999		

Allowable Load (t):	Single		Semi		Train		---> On Critical Spans ---->Critical Member
Design Loading:	HS20					---> 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	Posting not required							

Hazard Marker At Bridge (Y/N)	Yes
Remarks	
Other Sign Types	East Sousa Creek, Trucks Steep Grade

Utilities (Located at)

Utility Attachments			
Telephone	North r/w	Gas	
Power	4 wire OH	Municipal	
Others	Water Survey Gauge Station-SW	Problem (Y/N)	No
Remarks			

Approach Road

		Last	Now	Explanation of Condition
Horizontal Alignment		9	9	Bottom of sag curve - no passing.
Vertical Alignment		5	5	
Roadway Width (m)	12.800			
Approach Bump		5	5	
Guardrail (Y/N)	Yes			Missing extra posts next to bridge
Guardrail		8	7	
Length (m)	59.000			
Current Standard (Y/N)	No			
Termination Type	TURNED DOWN ENDS			
Drainage		3	3	Roadway Drainage is causing erosion of the headslopes on SW. NW & NE corners.
Approach Road General Rating		**5**	**5**	

Superstructure

Bridge Component		Last	Now	Explanation of Condition
(Primary Span : **PM, 3 Spans, Lengths(m): 10.7-12.2-10.7, 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	10.0	0.0	0.0	0.0
Wearing Surface		7	5	(Deck has uneven grout throughout Numerous cracks in grout keys all span - 15-Sept-03) Paved over. ACP segregation at centerline.
(Material Type :)				
(Thickness(mm) :)				
Lateral Connection Problem (Y/N)	Yes			
Deck Top		N	N	
Deck Rideability		7	7	
Deck Joints		N	N	(Bump at east pier joint due difference in pier height 50mm grout over pier joint blockouts breaking out - 15-sept-03) (Buffer angles at abutments-05-Nov-2006) Paved over.
Temperature (deg. C)	-7			
(Expansion Type :)				
(Fixed Type :)				
Gap Size (mm)	Gap Location			
Deck Drainage		6	6	
Drains Clogged (Y/N)	No			
Curbs/Median		6	N	Snow covered.
(Curb Type : **Standard**)				
Scaling (Percent Area)	1			
Bridge Rail		6	N	Single layer flexbeam. (Missing 1 bolt NE Corner.-04-Jun-2010) Snow covered.
(Type : **GALVANIZED STEEL FLEX BEAM**)				
Bridge Rail Posts		7	N	
(Type : **GALVANIZED POST STEEL;GALVANIZED POST STEEL**)				
Bridge Rail/Posts Coating		6	6	
(Type : **GALVANIZED**)				
Sidewalk		X	X	
Girder Detail Ratings				
	N (count)	1 (count)	2 (count)	3 (count)
Last	0	0	0	2
Now	0	0	0	2
Girders		3	3	(Hole in top of span 3 girder 6 patched with ACP - 2003-09-15). Hairline longitudinal cracks with rust staining S1G6,7, and S2G2-photo. Small spall above west cap S3G2 - photo.
Cracking (Y/N)	Yes			
Spalling (Percent Area)	0			
(Number Of Girders : **36**)				

Superstructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
(Primary Span : **PM, 3 Spans, Lengths(m): 10.7-12.2-10.7, A-Ident Number:**)				
Diaphragms/Cross Frame		X	X	
Bearings		X	X	Concrete girders sit directly on timber cap.
Temperature (deg. C)	-7			
(Expansion Type :)				
(Fixed Type :)				
Coating Adequate (Y/N)	Yes			
Functioning (Y/N)	Yes			
Deck Underside		3	3	Water stain through grout keys & at piers-some patched. Water leaking through span 2, G6 and G7.
Stains (Percent Area)	2			
Span Alignment Problems				
Vertical (Y/N)	Yes			50 mm diff east pier north end 20 mm diff east pier south end 20mm diff West pier North end.
Horizontal (Y/N)	No			
Superstructure General Rating		**3**	**3**	

Substructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
Abutments				
Bearing Seats/Caps		5	5	
(Type : **TREATED TIMBER**)				
Backwalls/Breastwalls		3	3	Approach fill migrating through both abut backwall sheeting.
Wingwalls		X	X	
Piles		5	5	
Paint/Coating		X	X	
Abutment Stability		4	4	Approach fill migrating through both abutments.
Scour/Erosion		3	3	EWrosion scour scars on both headslopes orginating from approach runoff.
Piers/Bents				
(Type : **PIER-COLUMN**)				Uneven settlement between double row of piles on both piers. Rot suspected pier 1, N end W. cap - Minor deformation where cap is bearing on end pile.
Bearing Seats/Caps		4	4	
(Type : **TREATED TIMBER**)				
(Total Number of Bearing Piles : **19:19**)				Sheeted in.
Pier Shaft/Piles		N	N	
Bracing/Struts/Sheathing		5	5	
Nose Plate		5	4	Hole rusted through pier 1 nose plate.
Paint/Coating		4	4	Rusting
(Colour Description :)				
(Colour Code :)				
Pier Stability		3	3	Uneven settlement of pile rows in both piers.
Scour		5	5	
Debris (Y/N)	No			
Substructure General Rating		**3**	**3**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel				
(U/S Direction : **S**)				
(D/S Direction : **N**)				
Alignment		6	6	
Bank Stability		7	7	
HWM (m below Top of Curb)				Hwm not visible. Large size
Drift (Y/N)	Yes			
Slope Protection		4	4	Partially rip-rapped with rock. Head-slopes have erosion gullies.
(Type : **RIP RAP**)				
Guidebank/Spurs		X	X	
Adequacy of Opening		7	7	
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**4**	**4**	

Maintenance Recommendations

Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
REPAIR/REPLACE BRIDGE RAIL						
GALVANIZE/PAINT 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	Assessment for bridsge replacement/repair - suspect rot pier 1				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**33.3/33.3**	**Sufficiency Rating (Last/Now) (%)**	**42.5/41.3**	Est. Repl. Yr	2013	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection	Monitor uneven settlement on both piers. Monitor girder cracks. Consider differing major repairs until replacement.	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	Brian Pientsch	Previous Assistant's Name			
Next Inspection Date	12-Oct-2013	Previous Inspection Date	04-Jun-2010		
Inspection Cycle (Default) (months)	21				
Comment					