Bridge Inspection

Bridge File Number	76212 -1 Bridge	Form Type	PSR
Year Built/Year Supstr	1968/1968	Lot No.	2
		Inspector Name	Brian Pientsch
Bridge or Town Name	HINES CREEK	Inspector Class	BR CLS A
Located Over	CLEAR RIVER, 8.10.93, WATERCRS-ST	Assistant Name	Russel Vanderschaaf
Located On	64:02 C1 22.519	Assistant Class	BR CLS B
Water Body Cl./Year		Inspection Date	07-Dec-2011
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SW SEC 28 TWP 84 RGE 11 W6M	Data Entry Date	03-Jan-2012
Longitude, Latitude	-119:40:52, 56:18:28	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	13-Dec-2011
Contract Main. Area	CMA04	Dept. Reviewer Name	David Morrison
Clear Roadway/Skew	9.1 /	Dept. Review Date	05-Apr-2012
AADT/Year	450 / 2011 (A)	Follow-Up By	
Road Classification	RAU-209-110		
Detour Length (km)	999		

Allowable Load (t):	Single	CS1 41 GIRDER	Semi	CS2 49 GIRDER	Train	CS3 64 GIRDER	---> 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								

Hazard Marker At Bridge (Y/N)	Yes
Remarks	All hazard markers bent/knocked down
Other Sign Types	Clear River, Curve, Campground, Slippery, Slower Traffic keep right.

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road

		Last	Now	Explanation of Condition
Horizontal Alignment		5	5	Curves on both approaches.
Vertical Alignment		4	4	Bottom of sag curve. 10% grade.
Roadway Width (m)	10.000			
Approach Bump		5	5	
Guardrail (Y/N)	Yes			
Guardrail		6	6	
Length (m)	49.400			
Current Standard (Y/N)	Yes			
Termination Type	TURNED DOWN			
Drainage		3	3	Erosion @ SW Corner. Concrete down drain broke, and seperated at NW & SW. Two erosion channels under S1, one at south end one in middle seems to originate from NW corner.-photo Snow/ice covered.
Approach Road General Rating		**4**	**4**	

Superstructure

Bridge Component	Last	Now	Explanation of Condition
(Primary Span : **FC, 3 Spans, Lengths(m): 27.4-27.4-27.4, A-Ident Number:**)			
Special Features			
Special Feature	7	7	
(Type : **EXT LATER POST TENS**)			
Special Feature		X	
(Type :)			
Wearing Surface/Deck Top Detail Ratings			
	N (%) / 1 (%) / 2 (%) / 3 (%)		
Last	5 / 0 / 0 / 0		Partly snow covered.
Now	15.0		
Wearing Surface	5	4	Approx 6 sq. m of chip seal spalled from deck.
(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	5	5	Both piers have staining all joints look like they have been repaired at some point.
Temperature (deg. C) : -15			
(Expansion Type : **GLAND (WABO-MAUER, TRANSFLEX, ETC)**)			
(Fixed Type :)			
Gap Size (mm) / Gap Location			
80 / Abut 1			
74 / Pier 1			
77 / Pier 2			
82 / Abut 2			
Deck Drainage	7	7	NO DRAINS
Drains Clogged (Y/N) : No			
Curbs/Median	4	N	Spalled on top @ S1 South side.-15-Mar-2010
(Curb Type : **JERSEY/F SHAPE**)			Snow covered
Scaling (Percent Area) : 30			
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	0 / 0 / 0 / 12		S1G1, G3 spall with stressing strand exposed and rusting-wide longitudinal ck in chamfer between web and flange. G3 & G4S2 both spalled in 3 locations, rust stains and stressing gland exposed.-photo
Now	18		

Superstructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
(Primary Span : **FC, 3 Spans, Lengths(m): 27.4-27.4-27.4, A-Ident Number:**)				
Girders		3	3	Numerous minor spalls on girder leg bottoms from construction. Typical FC chamfer cracks. Girder S1G1, 2&3-spalling at abut 1 @ diaphragm location. Vertical cracks at West end S1G1. All girders have rust spots on bottom of legs and longitudinal cks.-photo
Cracking (Y/N)	Yes			
Spalling (Percent Area)	1			
(Number Of Girders : **18**)				
Diaphragms/Cross Frame		4	4	Spalls in abut 1 diaphrams G1,2,3 into undersdie of girder.
Bearings		2	4	Pads are showing distortion. S1G1,&G6, S3G1,G6 moved 30mm. S3G2 grout pad spalled.
Temperature (deg. C)	8			
(Expansion Type : **DISC BEARING**)				
(Fixed Type : **REINFORCED NEOPRENE BEARING WITH TEFLON AND STAINLESS STEEL**)				
Coating Adequate (Y/N)	Yes			
Functioning (Y/N)	No			
Deck Underside		5	5	
Stains (Percent Area)	1			
Span Alignment Problems				
Vertical (Y/N)	No			Pads are showing signs of distortion, S1G1 & G6 and S3G1 & G6 moved 30mm
Horizontal (Y/N)	Yes			
Superstructure General Rating		**2**	**4**	

Substructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
Abutments				
Bearing Seats/Caps		6	6	
(Type : **CONCRETE**)				
Backwalls/Breastwalls		5	4	100mx100m spalls SW & NE corner of backwalls.
Wingwalls		3	3	Salt deterioration and spalling at all four wingwalls.
Piles		N	N	
Paint/Coating		X	X	
Abutment Stability		5	5	
Scour/Erosion		3	3	1x2m erosion scars on W. headslope originating from sides.-photo
Piers/Bents				
(Type : **PIER-SOLID**)				
Bearing Seats/Caps		6	6	
(Type : **CONCRETE**)				
(Total Number of Bearing Piles : **1:1**)				Several small spalls on WEst side pier 1, top N side.
Pier Shaft/Piles		5	4	
Bracing/Struts/Sheathing		X	X	
Nose Plate		7	7	Nose plate rusting
Paint/Coating		4	4	Capseal peeling.
(Colour Description :)				
(Colour Code :)				
Pier Stability		7	7	
Scour		5	5	

Substructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
Debris (Y/N)	Yes			Minor drift (100mm dia) NW bank.
Substructure General Rating		**5**	**5**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel				
(U/S Direction : **N**)				River attacking West headslope and undermining toe of slope.
(D/S Direction : **S**)				
Alignment		4	4	
Bank Stability		3	4	Vertical banks u/s and d/s.
HWM (m below Top of Curb)				No HWM visible.
Drift (Y/N)	Yes			
Slope Protection		3	3	Concrete slope protection E. headslope . Only toe of W. headslope eroded 1m deep.-photo
(Type : **CONCRETE**)				
Guidebank/Spurs		8	8	2 spurs on East upstream bank.
Adequacy of Opening		7	7	
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**3**	**3**	

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	2012	Under span 1				
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION						
OTHER ACTION	2012	REPAIR CONCRETE DRAINS,PARAPETS.				
OTHER ACTION	2012	Repair hazard markers				
OTHER ACTION	2012	Patch wingwalls.				
OTHER ACTION	2012	Repair spall where stressing strand exposed.				
OTHER ACTION	2012	Repair slope protection, W. headslope				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**38.9/50.0**	**Sufficiency Rating (Last/Now) (%)**	**35.4/40.8**	Est. Repl. Yr	2040	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection	Monitor bearing at abut corners.	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	07-Sep-2013	Previous Inspection Date	15-Mar-2010		
Inspection Cycle (Default) (months)	21				

Comment	