

Bridge Inspection									
Bridge File Number	01938 -1 Bridge				Form Type	PSR			
Year Built/Year Supstr	1971/1971				Lot No.	1			
Bridge or Town Name	THREE HILLS				Inspector Name	Owen Salava			
Located Over	GHOSTPINE CREEK, 3.50, WATERCRS-ST				Inspector Class	BR CLS A			
Located On	27:10 C1 12.085				Assistant Name				
Water Body Cl./Year					Assistant Class				
Navigabil. Cl./Year					Inspection Date	24-Oct-2012			
Legal Land Location	SW SEC 16 TWP 31 RGE 22 W4M				Data Entry By	Marcia Chavez			
Longitude, Latitude	-113:03:59, 51:38:57				Data Entry Date	08-Nov-2012			
Road Authority	Alberta Transportation (AIT)				Reviewer Name	John O'Brien			
Contract Main. Area	CMA20				Review Date	29-Oct-2012			
Clear Roadway/Skew	10.2 /				Dept. Reviewer Name	Andrew Smikles			
AADT/Year	1,960 / 2011 (A)				Dept. Review Date	19-Nov-2012			
Road Classification	RAU-210-110				Follow-Up By				
Detour Length (km)	6								
Allowable Load (t):	Single	H 42 GIRDER	Semi	HS 56 GIRDER	Train	CS3 90 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	Not required.								
Hazard Marker At Bridge (Y/N)	No								
Remarks	Not required.								
Other Sign Types									
Utilities (Located at)									
Utility Attachments									
Telephone	South fenceline.				Gas				
Power	North Row				Municipal				
Others					Problem (Y/N)	No			
Remarks									
Approach Road									
			Last	Now	Explanation of Condition				
Horizontal Alignment			7	7	Approaches at all 4 corners.				
Vertical Alignment			5	5	Hills both ends.				
Roadway Width (m)	9.700								
Approach Bump			7	7					
Guardrail (Y/N)	Yes				Minor accident damage to NW.				
Guardrail			4	5					
Length (m)	19.000				Only 19m @ SW corner, 49m at other 3 corners.				
Current Standard (Y/N)	No								
Termination Type	TURNED DOWN								
Drainage			3	3	(Gap between concrete approach slab and curb @ all corners. 17Feb2009). Eroding under SE trough drain and eroding SE abut. corner - photo. Eroding NE abut corner (photo). Void under approach slab.				
Approach Road General Rating			5	5					

Superstructure						
Bridge Component		Last		Now		Explanation of Condition
(Primary Span : PM, 3 Spans, Lengths(m): 16.8-16.8-16.8, A-Ident Number:)						
Special Features						
Special Feature				X		
(Type :)						
Special Feature				X		
(Type :)						
Wearing Surface/Deck Top Detail Ratings						
	N (%)	1 (%)	2 (%)	3 (%)		
Last	5	0	0	0		
Now	10.0	0.0	0.0	0.0		
Wearing Surface				6	6	Cracked over joints and random cracking.
(Material Type : ACP - CONVENTIONAL CHIP SEAL COAT)						
(Thickness(mm) : 50)				Stains under grout keys.		
Lateral Connection Problem (Y/N)		Yes				
Deck Top				N	N	
Deck Rideability				6	6	
Deck Joints				N	N	Paved over. Cracked through ACP.
Temperature (deg. C)		-2				
(Expansion Type :)						
(Fixed Type : ASPHALTIC FIBRE BOARD)						
Gap Size (mm)		Gap Location				
Deck Drainage				3	3	Deterioration of girders at all spans along curb line.
Drains Clogged (Y/N)		No		Leakage through G1 & G2 @ all spans.		
				No deck drains.		
Curbs/Median				4	4	(Rebar exposed @ SE @ one isolated area. 17Feb2009).
(Curb Type : Standard)						
Scaling (Percent Area)		5				
Bridge Rail				6	6	Double layer.
(Type : GALVANIZED STEEL FLEX BEAM)						
Bridge Rail Posts				7	7	
(Type : GALVANIZED POST STEEL;GALVANIZED POST STEEL)						
Bridge Rail/Posts Coating				5	5	
(Type : GALVANIZED)						
Sidewalk				X	X	
Girder Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last	0	0	0	1		
Now	0	0	0	4		
Girders				3	3	G1 in all spans and S2G2 in have cracks with corrosion stains.
Cracking (Y/N)		Yes		Horizontal crack 810mm long at fascia of S3G1 at abut, no staining.		
Spalling (Percent Area)		0		S3G1 720mm long crack/delam on underside at A2.		
(Number Of Girders : 36)						

Superstructure				
Bridge Component		Last	Now	Explanation of Condition
(Primary Span : PM, 3 Spans, Lengths(m): 16.8-16.8-16.8, A-Ident Number:)				
Diaphragms/Cross Frame		X	X	
Bearings		7	7	
Temperature (deg. C)	-2			
(Expansion Type : NEOPRENE STRIP BEARING)				
(Fixed Type : NEOPRENE STRIP BEARING)				
Coating Adequate (Y/N)	Yes			
Functioning (Y/N)	Yes			
Deck Underside		4	4	Stains coming between girders. Worst along south exteriors.
Stains (Percent Area)	10			
Span Alignment Problems				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			
Superstructure General Rating		3	3	
Substructure				
Bridge Component		Last	Now	Explanation of Condition
Abutments				
Bearing Seats/Caps		7	7	
(Type : CONCRETE)				
Backwalls/Breastwalls		N	7	Backwalls behind girders, not visible; breastwall rated.
Wingwalls		7	7	
Piles		N	N	Buried
Paint/Coating		5	5	
Abutment Stability		7	7	
Scour/Erosion		3	3	8m x 5m x 1m deep erosion undermining SE abut. & erosion gully at NE hslp. Void under NE approach slab.
Piers/Bents				
(Type : PIER-COLUMN)				
Bearing Seats/Caps		7	7	
(Type : CONCRETE)				
(Total Number of Bearing Piles : 6:6)				
Pier Shaft/Piles		8	8	
Bracing/Struts/Sheathing		8	8	
Nose Plate		7	7	
Paint/Coating		5	5	
(Colour Description : BLUE)				
(Colour Code : 15182)				
Pier Stability		7	7	
Scour		7	7	
Debris (Y/N)	Yes			Precast girder 10m D/S - also rebar in channel under bridge.
Substructure General Rating		7	7	

Structure Usage				
		Last	Now	Explanation of Condition
Channel				
(U/S Direction : N)				
(D/S Direction : S)				
Alignment		8	8	
Bank Stability		7	7	
HWM (m below Top of Curb)				HWM not visible.
Drift (Y/N)	No			
Slope Protection		7	7	Erosion from approach drainage.
(Type : RIP RAP; RIP RAP)				
Guidebank/Spurs		X	X	
Adequacy of Opening		8	8	
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		7	7	

Maintenance Recommendations

Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
REPAIR/REPLACE BRIDGE RAIL						
GALVANIZE/PAINT BRIDGE RAIL						
SEAL CURBS	2013	Patch curb, if not done.				
PATCH DECK	2013	Restore grout keys.				
SEAL DECK						
OVERLAY DECK						
REPAIR/REPLACE DECK JOINTS						
RESET/ PAINT BEARINGS						
WASHING						
SHOTCRETE REPAIRS						
REPAIR ABUTMENT SCOUR/EROSION	2013	40m3 pit run CL1 at E hslp.				
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION						
OTHER ACTION	2013	Fill gap @ all corners.				
OTHER ACTION	2013	Patch girder @ S1G1, S2G1, S3G1 & S2G2.				
OTHER ACTION	2013	Grout east approach slab void.				
OTHER ACTION	2013	Remove girder and rebar from channel.				
OTHER ACTION						
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Structural Condition Rating (Last/Now) (%)	55.6/55.6	Sufficiency Rating (Last/Now) (%)	71.7/71.6	Est. Repl. Yr	2030	Maint. Req'd. (Y/N)	Yes
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Special Comments for Next Inspection	Monitor marked crack at SE.	Department Comments

Maintenance Reviewed By	Date	Estimated Total	0
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Proposed Long-Term Strategy 2004.11.03 Bridge should be good until 2031 with normal maintenance.

On 3-Year Program (Y/N)

Proposed Action

Previous Inspector's Name Owen Salava

Next Inspection Date 24-Jul-2014

Previous Assistant's Name

Previous Inspection Date 21-Dec-2010

Inspection Cycle (Default) (months) 21

Comment	
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Maintenance Recommendations								
Inspector Recommendations		Year	Inspector Comments	Department Comments		Target Year	Est. Cost	Cat #
REPAIR/REPLACE BRIDGE RAIL								
GALVANIZE/PAINT BRIDGE RAIL								
SEAL CURBS		2013	Patch curb, if not done.	At rehab		2014		
PATCH DECK		2013	Restore grout keys.	At rehab		2014		
SEAL DECK								
OVERLAY DECK								
REPAIR/REPLACE DECK JOINTS								
RESET/ PAINT BEARINGS								
WASHING								
SHOTCRETE REPAIRS								
REPAIR ABUTMENT SCOUR/EROSION		2013	40m3 pit run CL1 at E hslp.	At rehab		2014		
PLACE ADDITIONAL RIP RAP								
REMOVE DRIFT ACCUMULATION								
OTHER ACTION		2013	Fill gap @ all corners.	At rehab		2014		
OTHER ACTION		2013	Patch girder @ S1G1, S2G1, S3G1 & S2G2.	At rehab		2014		
OTHER ACTION		2013	Grout east approach slab void.	At rehab		2014		
OTHER ACTION		2013	Remove girder and rebar from channel.	At rehab		2014		
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Structural Condition Rating (Last/Now) (%)		55.6/55.6	Sufficiency Rating (Last/Now) (%)	71.7/71.6	Est. Repl. Yr	2030	Maint. Req'd. (Y/N)	Yes
Special Comments for Next Inspection	Monitor marked crack at SE.			Department Comments	Rehab programmed for 2014			
Maintenance Reviewed By	Andrew Smikles			Date	20-Dec-2012	Estimated Total	0	
Proposed Long-Term Strategy	2004.11.03 Bridge should be good until 2031 with normal maintenance.							

On 3-Year Program (Y/N)			
Proposed Action			
Previous Inspector's Name	Owen Salava	Previous Assistant's Name	
Next Inspection Date	24-Jul-2014	Previous Inspection Date	21-Dec-2010
Inspection Cycle (Default) (months)	21		
Comment			