

Bridge Inspection										
Bridge File Number	02435 -1 Bridge				Form Type	PCS				
Year Built/Year Supstr	1956/1956				Lot No.	6				
Bridge or Town Name	INNISFAIL				Inspector Name	Garry Roberts				
Located Over	KNEEHILLS CREEK, 3.46, WATERCRS-ST				Inspector Class	BR CLS A				
Located On	587:04 C1 7.884				Assistant Name					
Water Body Cl./Year					Assistant Class					
Navigabil. Cl./Year					Inspection Date	23-Nov-2012				
Legal Land Location	SE SEC 13 TWP 34 RGE 27 W4M				Data Entry By	Marcia Chavez				
Longitude, Latitude	-113:41:37, 51:54:39				Data Entry Date	04-Dec-2012				
Road Authority	Alberta Transportation (AIT)				Reviewer Name	John O'Brien				
Contract Main. Area	CMA19				Review Date	03-Dec-2012				
Clear Roadway/Skew	6.4 /				Dept. Reviewer Name	Andrew Smikles				
AADT/Year	90 / 2011 (A)				Dept. Review Date	04-Dec-2012				
Road Classification	RLU-208G-90				Follow-Up By					
Detour Length (km)	6									
Allowable Load (t):	Single	CS1 28 GIRDER	Semi	CS2 49 GIRDER	Train	CS3 62 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	May be required if A1 cap bulge worsens.									
Hazard Marker At Bridge (Y/N)	Yes									
Remarks	Fair condition. Too high; 1.8m to bottom.									
Other Sign Types										
Utilities (Located at)										
Utility Attachments										
Telephone	On S curb, loose.				Gas					
Power	2 wire 15m North of c/l.				Municipal					
Others					Problem (Y/N)	Yes				
Remarks										
Approach Road										
			Last	Now	Explanation of Condition					
Horizontal Alignment			6	7	Field entrance 10m NE of bridge. Both approach rises to meet bridge.					
Vertical Alignment			5	5						
Roadway Width (m)	7.000				Approach 1.0m grade difference with sharp drop off bridge at E. (Local farmer reports people often bounce thing out of pick-up when crossing bridge too fast. 07Dec2010).					
Approach Bump			4	4						
Guardrail (Y/N)	No									
Guardrail			X	X						
Length (m)										
Current Standard (Y/N)										
Termination Type										
Drainage			6	5						
Approach Road General Rating			5	5						

Superstructure						
Bridge Component		Last	Now	Explanation of Condition		
(Primary Span : PG, 2 Spans, Lengths(m): 6.1-6.1, A-Ident Number:)						
Special Features						
Special Feature			X			
(Type :)						
Special Feature			X			
(Type :)						
Wearing Surface/Deck Top Detail Ratings						
	N (%)	1 (%)	2 (%)	3 (%)		
Last	30	0	0	0	Snow/gravel covered.	
Now	40.0	0.0	0.0	0.0		
Wearing Surface			X	X		
(Material Type :)						
(Thickness(mm) :)						
Lateral Connection Problem (Y/N)		No				
Deck Top			6	6	Gap btwn girders 30mm. See girder comment.	
Deck Rideability			5	4	Approx. 160mm heave at A1 causing sag over pier.	
Deck Joints			N	X		
Bump (Y/N)		No				
Deck Drainage			6	6		
Drains Clogged (Y/N)		No				
Curbs/Median			6	6		
(Curb Type : Standard)						
Scaling (Percent Area)		5				
Bridge Rail			5	5	50x200 UT rail.	
(Type : BRIDGE SOLID BEAM (EX. TIMBER RAILS))						
Bridge Rail Posts			8	4	Sub-standard installed on flat.	
(Type : TREATED TIMBER;TREATED TIMBER)						
Bridge Rail/Posts Coating			6	X	Green treated timber.	
(Type :)						
Sidewalk			X	X		
Girder Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last	18	0	0	0		
Now	0	0	0	0		
Girders			N	4		
Last Complete Inspection Date		23-Nov-2012				
Cracking (Y/N)		Yes		S1G7 has wide crack & spall in AZ; 1 point increase for PG.		
Spalling (Percent Area)		0		S1G4,5 & S2G5,6 all have wide cracks in AZ of both legs in sound concrete.		
Lift or Connector Pocket Grouted (Y/N)		Yes		Grout is low in some pockets.		
(Number Of Girders : 18)						
Span Alignment Problems						
Vertical (Y/N)		Yes		Vertical misalignment W abut appears to have heaved.		
Horizontal (Y/N)		Yes		Horiz. misalignment btwn the two spans - very minor.		
Superstructure General Rating			5	4		

Substructure							
Bridge Component		Last	Now	Explanation of Condition			
Abutments							
(Extended Backwall Piles (Y/N) : Y)							
(Extended Backwall Piles Spacing(mm) : 1800)							
(Total Number of Caps/Corbels : 1:1)							
Bearing Seats/Caps/Corbels Detail Ratings							
	N (count)	1 (count)	2 (count)	3 (count)			
Last	0	0	0	0			
Now	0	0	0	1			
Bearing Seats/Caps/Corbels				4	3	A1 cap vertical crack S end. 20% of cap not bearing on pile 3 at A2. SW end of cap cracked full height at A1. Caps cored 23Nov2012. Rot in full length of A1 with approx. 20mm bulge at 3m length of N end. Beginning rot in A2 cap.	
(Type : TREATED TIMBER)							
(Depth(mm) : 300)							
(Width(mm) : 300)							
Backwalls/Breastwalls			N	4	Rotten vertical tongue & groove sheathing. Also showing rot W backwall. Strutted backwall pushing in.		
Greatest Height (m)		3.30					
Wingwalls			3	4	(N. wingwall bad scour hole.) Heavy scour behind NW wingwall.		
(Total Number of Bearing Piles : 5:5)							
Piles Detail Ratings							
	N (count)	1 (count)	2 (count)	3 (count)			
Last	0	0	0	0			
Now	0	0	0	2			
Piles				4	3	1st pile from N., E. side bad. Piles cored 23Nov2012. A1 has rot in P1 & P3 and beginning rot in P2 & P5. A2 has beginning rot in P2 & P5.	
Paint/Coating			X	X			
Abutment Stability			4	4	Pushing in on E & W wall, also rot in caps & piles.		
Scour/Erosion			N	N	Eroded behind NW wingwall.		
Piers/Bents							
(Type : PIER-COLUMN)							
(Total Number of Caps/Corbels : 1)							
Bearing Seats/Caps/Corbels Detail Ratings							
	N (count)	1 (count)	2 (count)	3 (count)			
Last	0	0	0	0			
Now	0	0	0	1			
Bearing Seats/Caps/Corbels				4	3	S end vertical crack. Pier cap cored 23Nov2012. Rot or beginning rot in majority of cores.	
(Type : TREATED TIMBER)							
(Depth(mm) : 300)							
(Width(mm) : 360)							
(Total Number of Bearing Piles : 5)							
Piles Detail Ratings							
	N (count)	1 (count)	2 (count)	3 (count)			
Last	0	0	0	0			
Now	0	0	0	2			
Pier Shaft/Piles				5	3	P3 repaired with steel jacket, but rot in pile. Pier piers cored 23Nov2012. Rot in P1 & P3. Beginning rot in P2,4,5.	
Greatest Height (m)		3.10					
Bracing/Struts/Sheathing			5	5	Struts 200 x 150 mm x 5.6 m.		
Nose Plate			X	X			

Substructure				
Bridge Component		Last	Now	Explanation of Condition
Paint/Coating		X	X	
(Colour Description :)				
(Colour Code :)				
Pier Stability		4	4	Top of bridge showing movement. Rot in pier cap & all piles.
Scour		N	N	Ice.
Debris (Y/N)	Yes			Fencing on both u/s and d/s end. 1 old pile under each span.
Substructure General Rating		4	3	
Structure Usage				
		Last	Now	Explanation of Condition
Channel				
(U/S Direction : N)				Poor re-alignment, causing scour behind wingwall. 90 deg. bend d/s.
(D/S Direction : S)				
Alignment		4	4	
Bank Stability		4	4	Scour at NW.
HWM (m below Top of Curb)				HWM not visible.
Drift (Y/N)	No			
Slope Protection		N	4	Scour at NW.
(Type : NATURAL; NATURAL)				
Guidebank/Spurs		X	X	
Adequacy of Opening		5	5	
(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	2013	Reinstall posts in strong axis & install double layer flexbeam.							
SEAL CURBS									
PATCH DECK									
OVERLAY DECK									
STRAIGHTEN/REPLACE MEMBERS	2013	Pile splice repairs A1P1-3,5; pier - all piles; A2P2,5.							
WASHING									
SHOTCRETE REPAIRS									
CORE TIMBER CAPS/CORBELS									
REPAIR/REPLACE TIMBER CAPS	2013	Replace all caps.							
REPAIR ABUTMENT SCOUR/EROSION	2013	NW wing both sides.							
PLACE ADDITIONAL RIP RAP	2013	20m3 pitrun + 10m3 CL1 at NW wing, cover with filter cloth.							
REMOVE DRIFT ACCUMULATION									
INSTALL STRUTS									
OTHER ACTION									
OTHER ACTION	2012	Complete assessment - replacement vs. repairs.							
OTHER ACTION	2012	Install Bump or Hazard signs.							
OTHER ACTION									
Structural Condition Rating (Last/Now) (%)	50.0/38.9	Sufficiency Rating (Last/Now) (%)	56.5/51.1	Est. Repl. Yr	2013	Maint. Req. (Y/N)	Yes		
Special Comments for Next Inspection	(This bridge is to be replaced in teh next 2yrs. 22Mar1998). Monitor substructure annually & again in Spring 2013. Inspect until replaced or repaired. Restricting load may be required if bulging at A1 cap worsens.		Department Comments						
Maintenance Reviewed By		Date			Estimated Total	0			
Proposed Long-Term Strategy	2003.07.04 Replace bridge by 2012								
On 3-Year Program (Y/N)									
Proposed Action									
Previous Inspector's Name	Owen Salava	Previous Assistant's Name							
Next Inspection Date	23-Feb-2016	Previous Inspection Date	25-Oct-2011						
Inspection Cycle (Default) (months)	39								
Comment									

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
REPAIR/REPLACE BRIDGE RAIL	2013	Reinstall posts in strong axis & install double layer flexbeam.	Defer maintenance until bridge replacement in 2014				
SEAL CURBS							
PATCH DECK							
OVERLAY DECK							
STRAIGHTEN/REPLACE MEMBERS	2013	Pile splice repairs A1P1-3,5; pier - all piles; A2P2,5.	Defer maintenance until bridge replacement in 2014				
WASHING							
SHOTCRETE REPAIRS							
CORE TIMBER CAPS/CORBELS							
REPAIR/REPLACE TIMBER CAPS	2013	Replace all caps.	Defer maintenance until bridge replacement in 2014				
REPAIR ABUTMENT SCOUR/EROSION	2013	NW wing both sides.	Defer maintenance until bridge replacement in 2014				
PLACE ADDITIONAL RIP RAP	2013	20m3 pitrun + 10m3 CL1 at NW wing, cover with filter cloth.	Defer maintenance until bridge replacement in 2014				
REMOVE DRIFT ACCUMULATION							
INSTALL STRUTS							
OTHER ACTION							
OTHER ACTION	2012	Complete assessment - replacement vs. repairs.	Defer maintenance until bridge replacement in 2014				
OTHER ACTION	2012	Install Bump or Hazard signs.	Defer maintenance until bridge replacement in 2014				
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	50.0/38.9	Sufficiency Rating (Last/Now) (%)	56.5/51.1	Est. Repl. Yr	2013	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	(This bridge is to be replaced in teh next 2yrs. 22Mar1998). Monitor substructure annually & again in Spring 2013. Inspect until replaced or repaired. Restricting load may be required if bulging at A1 cap worsens.		Department Comments	Replacement is scheduled for 2014. Monitor caps on 6 month cycle before then.			
Maintenance Reviewed By	Chris Black		Date	14-Jan-2013	Estimated Total	0	
Proposed Long-Term Strategy	2003.07.04 Replace bridge by 2012						
On 3-Year Program (Y/N)							

Proposed Action			
Previous Inspector's Name	Owen Salava	Previous Assistant's Name	
Next Inspection Date	23-Feb-2016	Previous Inspection Date	25-Oct-2011
Inspection Cycle (Default) (months)	39		
Comment			