

Bridge Inspection										
Bridge File Number	73666 -1 Bridge				Form Type	PCS				
Year Built/Year Supstr	1973/1973				Lot No.	1				
Bridge or Town Name	CASTOR				Inspector Name	Owen Salava				
Located Over	CASTOR CREEK, 5.20, WATERCRS-ST				Inspector Class	BR CLS A				
Located On	861:02 C1 2.248				Assistant Name					
Water Body Cl./Year					Assistant Class					
Navigabil. Cl./Year					Inspection Date	13-Sep-2012				
Legal Land Location	NE SEC 3 TWP 38 RGE 14 W4M				Data Entry By	Marcia Chavez				
Longitude, Latitude	-111:54:41, 52:14:18				Data Entry Date	03-Oct-2012				
Road Authority	Alberta Transportation (AIT)				Reviewer Name	John O'Brien				
Contract Main. Area	CMA21				Review Date	27-Sep-2012				
Clear Roadway/Skew	9.1 /				Dept. Reviewer Name	Andrew Smikles				
AADT/Year	200 / 2011 (A)				Dept. Review Date	22-Oct-2012				
Road Classification	RCU-208-110				Follow-Up By					
Detour Length (km)	3									
Allowable Load (t):	Single	CS1 28 GIRDER	Semi	CS2 49 GIRDER	Train	CS3 65 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	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										
Hazard Marker At Bridge (Y/N)	Yes									
Remarks	Wrong location, mounted off bridge.									
Other Sign Types	Bridge Narrows 100m South, 100m North.									
Utilities (Located at)										
Utility Attachments										
Telephone	East r/w.				Gas	Crosses road 75m South.				
Power	150m East of c/l.				Municipal					
Others					Problem (Y/N)	No				
Remarks										
Approach Road										
			Last	Now	Explanation of Condition					
Horizontal Alignment			5	5	Farm entrance North side of bridge. Bridge in sag, hill to North, curve to South. Poor sight distance in both directions.					
Vertical Alignment			5	5						
Roadway Width (m)	10.100				Tear @ NW bridge corner - photo. Insufficient length & posts.					
Approach Bump			5	6						
Guardrail (Y/N)	Yes									
Guardrail			4	4						
Length (m)	11.550									
Current Standard (Y/N)	No									
Termination Type	Turn Down									
Drainage			3	3	Road slopes to bridge, both abutments, causing headslope erosion.					
Approach Road General Rating			5	5						

Superstructure						
Bridge Component		Last	Now	Explanation of Condition		
(Primary Span : HC, 3 Spans, Lengths(m): 6.1-8.5-6.1, A-Ident Number:)						
Special Features						
Special Feature			X			
(Type :)						
Special Feature			X			
(Type :)						
Wearing Surface/Deck Top Detail Ratings						
	N (%)	1 (%)	2 (%)	3 (%)	Gravel along curbs.	
Last	10			5		
Now	10.0	0.0	0.0	0.0		
Wearing Surface				3	5	Minor wear in travel lane.
(Material Type : ACP)						
(Thickness(mm) : 25)						
Lateral Connection Problem (Y/N)		No				
Deck Top				3	N	(3 girders SP2 spalls @ buffer angles - photo. 28Aug2009) - Paved over.
Deck Rideability				4	5	
Deck Joints				4	N	(Buffer angles damaged on 3 girders. 28Aug2009) - Paved over.
Bump (Y/N)		No				
Deck Drainage				5	5	Gravel built up along curbs, not blocking drains.
Drains Clogged (Y/N)		No				
Curbs/Median				3	3	Spall curb top S2, S end - photo. Spalls or cracking behind posts @ W - photo.
(Curb Type : Standard)						
Scaling (Percent Area)		5				
Bridge Rail				3	3	Single layer; collision damage throughout West side.
(Type : GALVANIZED STEEL FLEX BEAM)						
Bridge Rail Posts				3	3	Front bolts/washers bent/damaged at 9/13 posts on West curb.
(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				7		
Now	0	0	0	11		
Girders				3	3	Narrow shear cracks in several girders. S2G2-4,7-10 wide cracks, 2 legs in AZ; unable to verify concrete, looks ok. S3G3-7,10 cracks in AZ, looks ok. S2G1,11 & S3G1,10 spalling in AZ.
Last Complete Inspection Date		13-Sep-2012				
Cracking (Y/N)		Yes				
Spalling (Percent Area)		5				
Lift or Connector Pocket Grouted (Y/N)		No				
(Number Of Girders : 33)						
Span Alignment Problems						
Vertical (Y/N)		No		30mm misalign over both piers - photo.		
Horizontal (Y/N)		Yes				
Superstructure General Rating				3	3	

Substructure						
Bridge Component		Last	Now	Explanation of Condition		
Abutments						
(Extended Backwall Piles (Y/N) : Y)						
(Extended Backwall Piles Spacing(mm) : 1600)						
(Total Number of Caps/Corbels : 5:5)				145 x 280 spacer on top of caps.		
Bearing Seats/Caps/Corbels Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last	1					
Now	1	0	0	0		
Bearing Seats/Caps/Corbels				7	7	
(Type : TREATED TIMBER)						
(Depth(mm) : 300)						
(Width(mm) : 350)						
Backwalls/Breastwalls			7	7		
Greatest Height (m)		1.00				
Wingwalls			6	6		
(Total Number of Bearing Piles : 0:0)				Headslope to underside of cap.		
Piles Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last	100					
Now	100	0	0	0		
Piles				N	N	
Paint/Coating				X	X	
Abutment Stability			5	5		
Scour/Erosion			3	3		
1m x 1m x 3m erosion @ SW; 0.7m x 0.9m x 4.0m erosion @ NE - photo.						
Piers/Bents						
(Type : PIER-COLUMN)						
P1 - HP310. P2 - TT with 145 x 280 spacer.						
(Total Number of Caps/Corbels : 1:5)						
Bearing Seats/Caps/Corbels Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last						
Now	0	0	0	0		
Bearing Seats/Caps/Corbels				7	7	
(Type : TREATED TIMBER)						
(Depth(mm) : 300)						
(Width(mm) : 350)						
(Total Number of Bearing Piles : 6:8)				P1 - HP310 black steel.		
Piles Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last						
Now	0	0	0	0		
Pier Shaft/Piles				7	7	
Greatest Height (m)		4.00				
Bracing/Struts/Sheathing			6	6		
Nose Plate			X	X		
Paint/Coating			X	X		
(Colour Description :)						
(Colour Code :)						
P2 - TT planks 68 x 280.						

Substructure				
Bridge Component		Last	Now	Explanation of Condition
Pier Stability		7	7	
Scour		7	7	
Debris (Y/N)	No			
Substructure General Rating		7	5	
Structure Usage				
		Last	Now	Explanation of Condition
Channel				
(U/S Direction : E)				
(D/S Direction : W)				
Alignment		7	7	
Bank Stability		6	6	
HWM (m below Top of Curb)				HWM not visible.
Drift (Y/N)	No			
Slope Protection		6	6	
(Type : RIP RAP; NATURAL)				
Guidebank/Spurs		X	X	
Adequacy of Opening		7	7	
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		6	6	

Maintenance Recommendations										
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #				
REPAIR/REPLACE BRIDGE RAIL	2012	Replace West side including post anchors, as required. 6 rail pieces, 18 anchor bolts c/w washers.								
SEAL CURBS	2012	Patch backside & face 1m3 OH-V.								
PATCH DECK	2012	Grout pockets as required.								
OVERLAY DECK										
STRAIGHTEN/REPLACE MEMBERS										
WASHING										
SHOTCRETE REPAIRS										
CORE TIMBER CAPS/CORBELS										
REPAIR/REPLACE TIMBER CAPS										
REPAIR ABUTMENT SCOUR/EROSION										
PLACE ADDITIONAL RIP RAP										
REMOVE DRIFT ACCUMULATION										
INSTALL STRUTS										
OTHER ACTION	2012	Move hazard markers to standard location.								
OTHER ACTION	2012	Replace 1 guardrail piece @ NW.								
OTHER ACTION										
OTHER ACTION										
Structural Condition Rating (Last/Now) (%)	55.6/44.4	Sufficiency Rating (Last/Now) (%)	62.3/59.5	Est. Repl. Yr	2020	Maint. Req. (Y/N)	Yes			
Special Comments for Next Inspection	Monitor girders Check hslips for future problems.		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	Owen Salava	Previous Assistant's Name								
Next Inspection Date	13-Dec-2015	Previous Inspection Date	28-Aug-2009							
Inspection Cycle (Default) (months)	39									
Comment										

Maintenance Recommendations

Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
REPAIR/REPLACE BRIDGE RAIL	2012	Replace West side including post anchors, as required. 6 rail pieces, 18 anchor bolts c/w washers.	Programmed	2013		
SEAL CURBS	2012	Patch backside & face 1m3 OH-V.	Programmed	2013		
PATCH DECK	2012	Grout pockets as required.	Programmed	2013		
OVERLAY DECK						
STRAIGHTEN/REPLACE MEMBERS						
WASHING						
SHOTCRETE REPAIRS						
CORE TIMBER CAPS/CORBELS						
REPAIR/REPLACE TIMBER CAPS						
REPAIR ABUTMENT SCOUR/EROSION						
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION						
INSTALL STRUTS						
OTHER ACTION	2012	Move hazard markers to standard location.	To operations			
OTHER ACTION	2012	Replace 1 guardrail piece @ NW.	Programmed	2013		
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	55.6/44.4	Sufficiency Rating (Last/Now) (%)	62.3/59.5	Est. Repl. Yr	2020	Maint. Req. (Y/N)	Yes
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Special Comments for Next Inspection	Monitor girders Check hslps for future problems.	Department Comments	Replacement programmed for 2019
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Maintenance Reviewed By	Andrew Smikles	Date	05-Dec-2012	Estimated Total	0
Proposed Long-Term Strategy					
On 3-Year Program (Y/N)					
Proposed Action					
Previous Inspector's Name	Owen Salava	Previous Assistant's Name			
Next Inspection Date	13-Dec-2015	Previous Inspection Date	28-Aug-2009		
Inspection Cycle (Default) (months)	39				

Comment	
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