

Bridge Inspection							
Bridge File Number	01704 -1 Bridge			Form Type	PCS		
Year Built/Year Supstr	1960/1960			Lot No.	1		
Bridge or Town Name	TROCHU			Inspector Name	Dave Lam		
Located Over	GHOSTPINE CREEK, 3.50, WATERCRS-ST			Inspector Class	BR CLS A		
Located On	585:02 C1 5.129			Assistant Name			
Water Body Cl./Year				Assistant Class			
Navigabil. Cl./Year				Inspection Date	14-Jul-2011		
Legal Land Location	SW SEC 14 TWP 33 RGE 23 W4M			Data Entry By	Marcia Chavez		
Longitude, Latitude	-113:09:56, 51:49:25			Data Entry Date	15-Aug-2011		
Road Authority	Alberta Transportation (AIT)			Reviewer Name	John O'Brien		
Contract Main. Area	CMA20			Review Date	27-Jul-2011		
Clear Roadway/Skew	8.2 / -15 deg. (LHF)			Dept. Reviewer Name	Chris Black		
AADT/Year	630 / 2010 (A)			Dept. Review Date	30-Aug-2011		
Road Classification	RCU-208-110			Follow-Up By			
Detour Length (km)	6						
Allowable Load (t):	Single	CS1 29 GIRDER	Semi	CS2 52 GIRDER	Train	CS3 74 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 ditch.		Gas
Power	3 wire O/H - N fence line.		Municipal
Others			Problem (Y/N) No
Remarks	2 conduits fastened to S curb.		

Approach Road				
		Last	Now	Explanation of Condition
Horizontal Alignment		9	9	Crest curve in both directions approx 3/4 mile - good sight distance.
Vertical Alignment		8	8	
Roadway Width (m)	8.200			Both approaches repaved since 2005 inspection.
Approach Bump		5	6	
Guardrail (Y/N)	Yes			Minor bumps both ends. Numerous dents & bends but functioning. NW & SW - 38.0m NE & SE - 30.4m. Insufficient posts/spacing (photo).
Guardrail		5	5	
Length (m)	30.000			
Current Standard (Y/N)	No			
Termination Type	TURNED DOWN ENDS			
Drainage		5	5	
Approach Road General Rating		8	8	

Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Primary Span : PGO, 3 Spans, Lengths(m): 8.5-8.5-8.5, A-Ident Number:)					
Special Features					
Special Feature			X		
(Type :)					
Special Feature			X		
(Type :)					
Wearing Surface/Deck Top Detail Ratings					
	N (%)	1 (%)	2 (%)	3 (%)	Type PGO so std reinforced concrete overlay expected below the ACP.
Last					
Now	0.0	0.0	0.0	5.0	
Wearing Surface			6	3	Cracks at piers & approaches have been tar filled. Needs to be redone. ACP delam along curb (photo) at S side. Potholes developing in S1 (photo).
(Material Type : ACP)					
(Thickness(mm) : 50)					
Lateral Connection Problem (Y/N)		No			
Deck Top			N	N	
Deck Rideability			6	5	
Deck Joints			X	X	Wide trans. cracks in ACP above the piers.
Bump (Y/N)		No			
Deck Drainage			7	3	Deck spalled around drain at S side (photo).
Drains Clogged (Y/N)		No			
Curbs/Median			3	3	Curb is cracked/spalled under a number of posts - some previously patched (poorly). S1 face cracked.
(Curb Type : Standard)					
Scaling (Percent Area)		2			
Bridge Rail			6	6	Single layer with splice between posts. Nut missing N side 2nd post from E. Numerous A/B sheared but tack welded to stud. Curb cracked at 3rd post from A2.
(Type : GALVANIZED STEEL W-BEAM)					
Bridge Rail Posts			3	3	
(Type : GALVANIZED POST STEEL;GALVANIZED POST STEEL)					
Bridge Rail/Posts Coating			5	3	
(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	0	
Girders			3	4	Center span not accessible. S3G1-spalled in one leg extending into AZ-photo. S3G2-medium crack in one leg in AZ. S3G10-wide crack in one leg fill length. S1G7 & G8-short med crack in both legs outside AZ. S1G9-small spall in AZ one leg. S1G10-wide crack in both legs full length (photo). Rating revised based on latest BIM manual & girder type.
Last Complete Inspection Date		11-Jul-2011			
Cracking (Y/N)		Yes			
Spalling (Percent Area)		5			
Lift or Connector Pocket Grouted (Y/N)		Yes			
(Number Of Girders : 30)					
Span Alignment Problems					
Vertical (Y/N)		No			
Horizontal (Y/N)		No			
Superstructure General Rating			3	4	

Substructure						
Bridge Component		Last	Now	Explanation of Condition		
Abutments						
(Extended Backwall Piles (Y/N) : Y)						
(Extended Backwall Piles Spacing(mm) : 1500)						
(Total Number of Caps/Corbels : 3:3)				New caps.		
Bearing Seats/Caps/Corbels Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last		1				
Now	0	0	0	0		
Bearing Seats/Caps/Corbels				3	9	
(Type : TREATED TIMBER)						
(Depth(mm) : 305)						
(Width(mm) : 305)						
Backwalls/Breastwalls			6	3		
Greatest Height (m)		2.00				
Wingwalls			5	5		
(Total Number of Bearing Piles : 7:7)						
Piles Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last						
Now	0	0	0	0		
Piles				5	5	
Paint/Coating				X	X	
Abutment Stability			7	4		
Scour/Erosion			7	7		
Piers/Bents						
(Type : PIER-COLUMN)						
(Total Number of Caps/Corbels : 1:1)						
Bearing Seats/Caps/Corbels Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last						
Now	0	0	0	0		
Bearing Seats/Caps/Corbels				6	6	
(Type : STEEL)						
(Depth(mm) : 310)						
(Width(mm) : 310)						
(Total Number of Bearing Piles : 7:7)						
Piles Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last						
Now	0	0	0	0		
Pier Shaft/Piles				5	5	
Greatest Height (m)		3.10				
Bracing/Struts/Sheathing			5	5		
Nose Plate			6	6		
Paint/Coating			X	4		
(Colour Description :)						
(Colour Code :)						
Pier Stability			7	7		
				(E pier pile 5 collar not fully grouted. Top of pile splintered. 16Mar2005). Only top section visible; rest of pile is sheathed.		
				Rusting.		
				Steel caps have surface rust.		

Substructure				
Bridge Component		Last	Now	Explanation of Condition
Scour		N	N	Under water.
Debris (Y/N)	Yes			Old piles under S1.
Substructure General Rating		3	4	
Structure Usage				
		Last	Now	Explanation of Condition
Channel				
(U/S Direction : N)				
(D/S Direction : S)				
Alignment		7	7	
Bank Stability		7	7	No erosion.
HWM (m below Top of Curb)				HWM not visible.
Drift (Y/N)	No			
Slope Protection		7	7	Rock on lower part of both hspls.
(Type : RIP RAP; RIP RAP)				
Guidebank/Spurs		X	X	
Adequacy of Opening		7	7	
(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	2011	Replace anchor bolt nut 2nd post from A2.								
SEAL CURBS	2011	Patch curb at post anchor.								
PATCH DECK	2011	Patch potholes in S1 ACP.								
OVERLAY DECK	2015	At next HWY overlay.								
STRAIGHTEN/REPLACE MEMBERS										
WASHING	2011									
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	2011	Install sheathing to fill gap at AZ N end.								
OTHER ACTION	2011	Replace curb units at next major rehab.								
OTHER ACTION	2011	Assess girder condition to determine if bad girders should be patched or replaced.								
OTHER ACTION										
OTHER ACTION										
OTHER ACTION										
Structural Condition Rating (Last/Now) (%)	33.3/44.4	Sufficiency Rating (Last/Now) (%)	61.7/64.6	Est. Repl. Yr	2020	Maint. Req'd. (Y/N)	Yes			
Special Comments for Next Inspection	Monitor cracks in girders. No action required for cracked girders at this time as the worst rated girders are the curb units.		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	Dave Lam	Previous Assistant's Name								
Next Inspection Date	14-Oct-2014	Previous Inspection Date	16-Mar-2005							
Inspection Cycle (Default) (months)	39									
Comment										

Maintenance Recommendations

Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
REPAIR/REPLACE BRIDGE RAIL	2011	Replace anchor bolt nut 2nd post from A2.	Programmed	2012		
SEAL CURBS	2011	Patch curb at post anchor.	Programmed	2012		
PATCH DECK	2011	Patch potholes in S1 ACP.	Programmed	2012		
OVERLAY DECK	2015	At next HWY overlay.	At next highway overlay job			
STRAIGHTEN/REPLACE MEMBERS						
WASHING	2011					
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	2011	Install sheathing to fill gap at AZ N end.	Programmed			
OTHER ACTION	2011	Replace curb units at next major rehab.	At next rehab			
OTHER ACTION	2011	Assess girder condition to determine if bad girders should be patched or replaced.	Defer			
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
Structural Condition Rating (Last/Now) (%)	33.3/44.4	Sufficiency Rating (Last/Now) (%)	61.7/64.6	Est. Repl. Yr	2020	Maint. Req. (Y/N) Yes
Special Comments for Next Inspection	Monitor cracks in girders. No action required for cracked girders at this time as the worst rated girders are the curb units.		Department Comments	Tentatively programmed to be replaced in 2022. AS		
Maintenance Reviewed By	Andrew Smikles		Date	15-Aug-2012	Estimated Total	0
Proposed Long-Term Strategy						
On 3-Year Program (Y/N)						
Proposed Action						
Previous Inspector's Name	Dave Lam		Previous Assistant's Name			

Next Inspection Date	14-Oct-2014	Previous Inspection Date	16-Mar-2005
Inspection Cycle (Default) (months)	39		
Comment			