

Bridge Inspection							
Bridge File Number	02143 -1 Bridge			Form Type	PSR		
Year Built/Year Supstr	1970/1970			Lot No.	1		
Bridge or Town Name	TWIN BRIDGE			Inspector Name	Garry Roberts		
Located Over	ELBOW RIVER, 2.13.33, WATERCRS-ST			Inspector Class	BR CLS A		
Located On	8:06 C1 16.001			Assistant Name			
Water Body Cl./Year				Assistant Class			
Navigabil. Cl./Year				Inspection Date	12-Jun-2012		
Legal Land Location	NE SEC 5 TWP 24 RGE 2 W5M			Data Entry By	Kelsey Roberts		
Longitude, Latitude	-114:14:27, 51:01:00			Data Entry Date	27-Jun-2012		
Road Authority	Alberta Transportation (AIT)			Reviewer Name	Ash Morjaria		
Contract Main. Area	CMA27			Review Date	19-Jun-2012		
Clear Roadway/Skew	10.7 / 15 deg. (RHF)			Dept. Reviewer Name	Tim Davies		
AADT/Year	7,900 / 2011 (A)			Dept. Review Date	29-Jun-2012		
Road Classification	RAU-211.8-110			Follow-Up By			
Detour Length (km)	12						
Allowable Load (t):	Single	CS1 41 GIRDER	Semi	CS2 48 GIRDER	Train	CS3 63 GIRDER	----> On Critical Spans ---->Critical Member
Design Loading:	HS20						----> Primary Span

Posting Information								
Required Load Posting (t)			Single		Semi	49	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)	Yes							
Remarks								
Other Sign Types	Bridge Ices, No Parking, River I.D. Bump Sign.							

Utilities (Located at)				
Utility Attachments	TELEPHONE UTILITIES-PHONE LINE			
Telephone	Under South exterior girder.		Gas	100 m West.
Power	South Row and crosses West.		Municipal	
Others			Problem (Y/N)	No
Remarks				

Approach Road				
		Last	Now	Explanation of Condition
Horizontal Alignment		5	5	Curves both ends.
Vertical Alignment		7	7	
Roadway Width (m)	12.500			
Approach Bump		5	6	
Guardrail (Y/N)	Yes			
Guardrail		5	5	Not thriebeam
Length (m)	99.000			
Current Standard (Y/N)	No			
Termination Type	TURNED DOWN			
Drainage		5	6	
Approach Road General Rating		5	5	

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			
(Type : EXT LATER POST TENS)						
Special Feature			7			
(Type : UNDERSLUNG DIAPHR)						
Wearing Surface/Deck Top Detail Ratings						
	N (%)	1 (%)	2 (%)	3 (%)		
Last	0	0	0	0		
Now	0.0	0.0	0.0	0.0		
Wearing Surface			5	5	Abrasion. Key cracks @ WBL @ West & center spans. 3m2of center span has medium scaling. Some 50 to 75mm diameter break outs	
(Material Type : CONCRETE)						
(Thickness(mm) : 50)						
Lateral Connection Problem (Y/N)		No				
Deck Top			N	N		
Deck Rideability			7	6		
Deck Joints			3	4	(3 broken welds at A1 and A2 at W/B shoulder)- Not able to confirm. No broken welds visible. Curb cover plates are corroding- typ. all covers.	
Temperature (deg. C)		15				
(Expansion Type : FINGER PLATES;GLAND (WABO-MAUER, TRANSFLEX, ETC))						
(Fixed Type :)						
Gap Size (mm)		Gap Location				
60		East Abutment				
50		East pier				
45		West pier				
50		West abutment				
Deck Drainage			5	5	Retro drains @ North gutter.	
Drains Clogged (Y/N)		No				
Curbs/Median			5	5	Minor spalls	
(Curb Type : Standard)						
Scaling (Percent Area)		1				
Bridge Rail			7	7	Insufficient thread engaged at isolated post A/B nuts	
(Type : BRIDGE TUBE)						
Bridge Rail Posts		4	4			
(Type : GALVANIZED POST STEEL;GALVANIZED POST STEEL)						
Bridge Rail/Posts Coating		6	6			
(Type :)						
Sidewalk			X	X		
Girder Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last	0	0	0	1		
Now	7	0	0	1		
Girders			3	3	Horizontal crack - 500mm from top of girder - typical @ most ends. Typical 0.4 - 0.5mm wide longitudinal cracks 200mm from bottom of girders 1 - 2m long @ abutment #1. Marked & dated @ NW Girder #7. Cracking @ underside of girder ends. Appears typical of FC units - in chamfer. Wide vertical cracks @ North Ext over both piers	
Cracking (Y/N)		Yes				
Spalling (Percent Area)		1				
(Number Of Girders : 21)						

Superstructure				
Bridge Component		Last	Now	Explanation of Condition
(Primary Span : FC, 3 Spans, Lengths(m): 27.4-27.4-27.4, A-Ident Number:)				
Diaphragms/Cross Frame		5	5	
Bearings		7	7	
Temperature (deg. C)	15			
(Expansion Type : REINFORCED NEOPRENE BEARING WITH TEFLON AND STAINLESS STEEL)				
(Fixed Type : REINFORCED PAD BEARING)				
Coating Adequate (Y/N)	Yes			
Functioning (Y/N)	Yes			
Deck Underside		4	4	Spall @ NW Drain
Stains (Percent Area)	0			
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		7	7	
Wingwalls		7	7	
Piles		N	N	Buried
Paint/Coating		4	4	Tar coating is stained and wearing thin
Abutment Stability		7	7	
Scour/Erosion		5	5	Minor erosion at NW from App. road draining
Piers/Bents				
(Type : PIER-COLUMN)				
Bearing Seats/Caps		7	7	
(Type : CONCRETE)				
(Total Number of Bearing Piles : 2:2)				
Pier Shaft/Piles		7	7	
Bracing/Struts/Sheathing		X	X	
Nose Plate		X	X	
Paint/Coating		6	5	
(Colour Description :)				
(Colour Code :)				
Pier Stability		7	7	
Scour		6	6	
Debris (Y/N)	Yes			Drift @ West pier & minor drift @ East pier
Substructure General Rating		7	7	

Structure Usage				
		Last	Now	Explanation of Condition
Channel				
(U/S Direction : N)				Stream flows against the East bank. @ high water
(D/S Direction : S)				
Alignment		4	4	
Bank Stability		4	4	Erosion along East bank 20m North of bridge - rock underneath @ bridge. Unstable banks at river left (U/S at east)
HWM (m below Top of Curb)	3.0			Water almost to bottom of girders in 1995 flood.
Drift (Y/N)	Yes			
Slope Protection		3	3	Class 2 riprap. Concrete slope protection voided out and collapsed @ NE
(Type : CONCRETE; CONCRETE)				
Guidebank/Spurs		7	7	
Adequacy of Opening		7	5	
(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	2012	Patch underside Sp.1-G7 - epoxy seal drain at deck.					
SEAL DECK							
OVERLAY DECK							
REPAIR/REPLACE DECK JOINTS	2012	Weld in section and weld down loose or broken fingers if not done - check all other fingers.					
RESET/ PAINT BEARINGS							
WASHING							
SHOTCRETE REPAIRS							
REPAIR ABUTMENT SCOUR/EROSION							
PLACE ADDITIONAL RIP RAP	2012	50m3 Class 2 rock @ NE and repair concrete @ NE slope protection 20m3 concrete					
REMOVE DRIFT ACCUMULATION	2012	@ West pier					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	55.6/55.6	Sufficiency Rating (Last/Now) (%)	45.3/45.3	Est. Repl. Yr	2033	Maint. Req'd. (Y/N)	Yes
Special Comments for Next Inspection			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	Garry Roberts		Previous Assistant's Name				
Next Inspection Date	12-Mar-2014		Previous Inspection Date	11-Dec-2010			
Inspection Cycle (Default) (months)	21						
Comment							