

Bridge Inspection									
Bridge File Number	71116 -1 Bridge				Form Type	SG			
Year Built/Year Supstr	1930/1978				Lot No.	2			
Bridge or Town Name	DUVERNAY				Inspector Name	Jason Saly			
Located Over	NORTH SASKATCHEWAN RIVER, 6, WATERCRS-ST				Inspector Class	BR CLS A			
Located On	29:08 C1 1.830				Assistant Name				
Water Body Cl./Year					Assistant Class				
Navigabil. Cl./Year					Inspection Date	10-Jan-2013			
Legal Land Location	SW SEC 35 TWP 55 RGE 12 W4M				Data Entry By	Marcia Chavez			
Longitude, Latitude	-111:41:17, 53:47:23				Data Entry Date	12-Feb-2013			
Road Authority	Alberta Transportation (AIT)				Reviewer Name	John O'Brien			
Contract Main. Area	CMA14				Review Date	19-Jan-2013			
Clear Roadway/Skew	9.8 /				Dept. Reviewer Name	Darron Ahlstedt			
AADT/Year	1,300 / 2011 (A)				Dept. Review Date	13-Feb-2013			
Road Classification	RAU-209-110				Follow-Up By				
Detour Length (km)	50								
Allowable Load (t):	Single	CS1 28	Semi	CS2 49	Train	CS3 62	----> On Critical Spans ---->Critical Member		
Design Loading:	HS25						----> 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	Posting not required.								
Hazard Marker At Bridge (Y/N)	No								
Remarks									
Other Sign Types	Information, "North Saskatchewan River", 80 kph.								
Utilities (Located at)									
Utility Attachments									
Telephone	Through West curb.				Gas				
Power	3 wires OH across road 15m North.				Municipal				
Others	Same power crosses river at 100m West of c/l.				Problem (Y/N)	No			
Remarks									
Approach Road									
			Last	Now	Explanation of Condition				
Horizontal Alignment			7	7	Local road accesses to NE & SW. Bridge located within max 80 kph zone. Sag curve, no passing. Limited sight distance South.				
Vertical Alignment			6	6					
Roadway Width (m)	9.300				SW approach sealed. Slight bump @ both abut joints due to chipseal wearing surface.				
Approach Bump			5	6					
Guardrail (Y/N)	Yes								
Guardrail			6	6					
Length (m)	11.000				Insufficient posts next to bridge and insufficient length. At SW only, 23m @ NE, 60m @ SE & NW.				
Current Standard (Y/N)	No								
Termination Type	Turned Down								
Drainage			3	3	South undermined 300mm abutment (photo). (Hole in SW approach/curb interface - photo. 02Dec2009). Snow/ice covered. Rating carried forward.				
Approach Road General Rating			6	6					

Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Primary Span : WG, 5 Spans, Lengths(m): 76.5-77.1-77.1-76.5-12.2, A-Ident Number: A0804-01;A0804-02)					
Special Features					
Special Feature		4	4	Bird droppings covered various locations of dewidags. Dywidag @ S2 & S3. Rubber gasket shifted off support bracket, P/T bar resting on bracket, S3. Opposite side gasket is split.	
(Type : EXT LONGIT POST TENS)					
Special Feature			3	CATWALK. Catwalk not locked both ends, lots of graffiti full length along catwalk. P1 & P3 only inside of G2 & G3 visible from catwalk. Missing bottom cable in East side at North end, 2 sections of catwalk. Catwalk r=3 due to missing cable.	
(Type :)					
Wearing Surface/Deck Top Detail Ratings					
	N (%)	1 (%)	2 (%)	3 (%)	Snow/ice covered.
Last	20	0	0	0	
Now	30.0	0.0	0.0	0.0	
Wearing Surface		7	6	Minor loss of seal coat along S abut jnt. Chip seal coat on epoxy on HDOL; 2012 Lvl 2 deck inspection noted 19m2 of debonded epoxy.	
(Material Type : CONCRETE - CONVENTIONAL CHIP SEAL COAT)					
(Thickness(mm) : 50)					
Deck Top		N	N		
Deck Rideability		7	7		
Deck Joints		4	4	(Joint drain trough above P4 overtops. 2006/05/23). Fingers rehabed. Missing finget at S jnt. NE abut cover plate broken out. N abut chipsealed over. New heavy wall plastic trough installed at A1, but deflector plates do not align with plastic trough.	
Temperature (deg. C)		-17			
(Expansion Type : FINGER PLATES)					
(Fixed Type : GLAND (WABO-MAUER, TRANSFLEX, ETC))					
Gap Size (mm)		Gap Location			
0		North abut			
146		Pier 4			
160		South abut			
Deck Drainage		7	4	Covered by snow/ice. Leakage along N backwall. Dripsheet at S does not overlap breastwall drain trough.	
Drains Clogged (Y/N)		No			
Curbs/Median		N	N	(Flared approach curb @ NE recast with poor quality concrete, minor scaling. Hole in SW approach curb. 02Dec2009). Snow/ice covered.	
(Curb Type : Standard)					
Scaling (Percent Area)		1			
Bridge Rail		7	7	(Grout pads patched. 02Dec2009). Snow covered.	
(Type : GALVANIZED STEEL TUBE BEAM TYPE 1)					
Bridge Rail Posts		7	4	29th & 30th pst from S along W curb damaged from wide load.	
(Type : GALVANIZED POST STEEL;GALVANIZED POST STEEL)					
Bridge Rail/Posts Coating		7	7		
(Type : GALVANIZED)					
Sidewalk		X	X		
Girder/Beam					
Cover Plate		X	X		
Flange		7	7		
Web		7	7		
Stiffeners		7	7		
Splice		7	7		
Weld		7	7		

Superstructure				
Bridge Component		Last	Now	Explanation of Condition
(Primary Span : WG, 5 Spans, Lengths(m): 76.5-77.1-77.1-76.5-12.2, A-Ident Number: A0804-01;A0804-02)				
Diaphragms/Cross Frame		7	7	
Paint Condition		6	6	Weathering steel, isolated scaling.
(Colour Description :)				
(Colour Code :)				
Touchup Required (Y/N)	No			
Bearings		4	4	A2 W bearing misaligned 20mm. (Expansion bearings near full expansion @ 20°C. 17/July/2008). (P4 has 14mm expansion left. A1, P3 has 40mm expansion left. P1 has 10mm expansion left. 08Dec2010).
Temperature (deg. C)	-17			
(Expansion Type : POT BEARING)				
(Fixed Type : POT BEARING)				
Coating Adequate (Y/N)	Yes			
Functioning (Y/N)	No			
Deck Underside		7	7	Some transverse cracks with efflorescence. Hairline longit. crack over catwalk.
Stains (Percent Area)	1			
Span Alignment Problems				
Vertical (Y/N)	No			All bearings in near full exp position, may mean abuts moving inward & rotating
Horizontal (Y/N)	Yes			
Superstructure General Rating		4	4	
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	5	Graffiti.
Abutment Stability		5	5	
Scour/Erosion		4	4	S abut fill settled - no action required.
Piers/Bents				
(Type : PIER-SOLID)				Buried. Scaling on d/s end of P4. P1 also has some vertical cracks; finish not complete where construction bracing was located.
Bearing Seats/Caps		7	7	
(Type : CONCRETE)				
(Total Number of Bearing Piles : 0:0:0:0)				
Pier Shaft/Piles		5	5	
Bracing/Struts/Sheathing		X	X	
Nose Plate		7	7	
Paint/Coating		4	4	10% failed - no action required.
(Colour Description :)				
(Colour Code :)				
Pier Stability		8	8	
Scour		N	N	(Water too dark to see scour. 15Aug2009). Iced over.

Substructure				
Bridge Component		Last	Now	Explanation of Condition
Debris (Y/N)	No			
Substructure General Rating		5	5	
Structure Usage				
		Last	Now	Explanation of Condition
Channel				
(U/S Direction : W)				
(D/S Direction : E)				
Alignment		8	8	
Bank Stability		8	8	
HWM (m below Top of Curb)	7.0			(Based on previous inspection date noted).
Drift (Y/N)	Yes			
Slope Protection		7	7	Minor erosion gullies, no problem.
(Type : NATURAL; NATURAL)				
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							
RETROFIT BRIDGE RAIL							
SEAL CURBS							
PATCH DECK							
SEAL DECK							
OVERLAY DECK							
REPAIR/REPLACE DECK JOINTS							
RESET/ PAINT BEARINGS							
REPAINT SUPERSTRUCTURE							
STRAIGHTEN/REPLACE MEMBERS							
WASHING	2013	Also wash girder P/T dywidags in S2 & S3 of bird droppings.					
SHOTCRETE REPAIRS							
REPAIR ABUTMENT SCOUR/EROSION							
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION							
OTHER ACTION	2013	Secure catwalk area with locks.					
OTHER ACTION	2013	Extend SW appro. guardrail length. Consider upgrading all corners to meet std.					
OTHER ACTION	2013	Install rubber to jnt plumbing to ensure drainage into trough at A1.					
OTHER ACTION	2013	Replace & reset rubber gasket/bushing @ girder P/T supports.					
OTHER ACTION	2013	Install bottom cable in East side of catwalk at North end 2 sections.					
OTHER ACTION	2013	Fill hole @ SW approach/curb interface, if not yet done.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
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OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	50.0/50.0	Sufficiency Rating (Last/Now) (%)	58.4/58.4	Est. Repl. Yr	2049	Maint. Req. (Y/N)	Yes

Special Comments for Next Inspection	Continue to monitor bearings; no action at this time, but consider resetting at next major rehab.		Department Comments		
Maintenance Reviewed By			Date		Estimated Total 0
Proposed Long-Term Strategy	Monitor scour at pier. may need protection. RS N. Sask River Transportation corridor study on file. Updated Strategy.				
On 3-Year Program (Y/N)					
Proposed Action					
Previous Inspector's Name	Dave Lam	Previous Assistant's Name			
Next Inspection Date	10-Oct-2014	Previous Inspection Date	08-Dec-2010		
Inspection Cycle (Default) (months)	21				
Comment					