

Bridge Inspection										
Bridge File Number	77389 W-2 Bridge					Form Type	PSR			
Year Built/Year Supstr	1974/1974					Lot No.	1			
Bridge or Town Name	KAPASIWIN					Inspector Name	Wade Nanninga			
Located Over	25137:02 C1 0.305					Inspector Class	BR CLS A			
Located On	16:12 L1 38.409					Assistant Name				
Water Body Cl./Year						Assistant Class				
Navigabil. Cl./Year						Inspection Date	09-Aug-2012			
Legal Land Location	SE SEC 18 TWP 53 RGE 3 W5M					Data Entry By	Lisa Fairhurst			
Longitude, Latitude	-114:25:11, 53:34:13					Data Entry Date	23-Aug-2012			
Road Authority	Alberta Transportation (AIT)					Reviewer Name	Eric Carcoux			
Contract Main. Area	CMA11					Review Date	21-Aug-2012			
Clear Roadway/Skew	12.2 /					Dept. Reviewer Name	Brent Herrick			
AADT/Year	9,920 / 2011 (A)					Dept. Review Date	30-Aug-2012			
Road Classification	RAD-412.4-120					Follow-Up By				
Detour Length (km)	1									
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 Vert. Clearance Posting (m)			UNDER: 25137 C1 5.2m									
Posted Vertical Clearance (Y/N)			Yes									
Posted:	Lane	NB	On Bridge (m)		In Advance (Y/N)	No	Lane	SB	On Bridge (m)	5.2	In Advance (Y/N)	Yes
Remarks		Posting for NBL is on 77389E.										
Required Load Posting (t)			Single			Semi			Truck Train			
Posted Loading (t)			Single			Semi			Truck Train			
Posted:	Lane	EB	At Junction (Y/N)			In Advance (Y/N)			At Bridge (Y/N)			
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		Merge, Information.										

Utilities (Located at)									
Utility Attachments									
Telephone	South r/w					Gas			
Power	7 wires North r/w.					Municipal			
Others	Geodetic 8m @ NE, transmission line ~450m South.					Problem (Y/N)	No		
Remarks									

Approach Road				
		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Typical overpass crest curve with on/off ramps. Crack over joint @ both abutments on ACP.
Vertical Alignment		6	6	
Roadway Width (m)	12.400			Wide cracks end of approach slabs - photo.
Approach Bump		4	4	
Guardrail (Y/N)	Yes			Flexbeam. Insufficient post/spacing. Damaged posts (2) @ NE & missing rail bolt.
Guardrail		4	4	
Length (m)	91.200			
Current Standard (Y/N)	No			
Termination Type	Turned Down			
Drainage		4	4	Drainage runs along West wingwall getting behind top of concrete slope protection.
Approach Road General Rating		6	6	

Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Primary Span : RD, 3 Spans, Lengths(m): 9.1-18.3-9.1, A-Ident Number:)					
Special Features					
Special Feature			X		
(Type :)					
Special Feature			X		
(Type :)					
Wearing Surface/Deck Top Detail Ratings					
	N (%)	1 (%)	2 (%)	3 (%)	
Last					
Now	0.0	0.0	0.0	0.0	
Wearing Surface			4	4	Random cracking reflecting through the seal coat. Losing aggregate in wheelpaths.
(Material Type : ACP - CONVENTIONAL CHIP SEAL COAT)					
(Thickness(mm) : 50)					
Lateral Connection Problem (Y/N)		No			
Deck Top			N	N	
Deck Rideability			6	6	Slight bump at pier joints.
Deck Joints			3	3	Both abutment leaking/staining. Missing 1 bolt @ curb cover plate for west pier, north end - photo. 1.5m longitudinal crack on P2 paving lip. Torn pier seals repaired.
Temperature (deg. C)		26			
(Expansion Type : GLAND (WABO-MAUER, TRANSFLEX, ETC))					
(Fixed Type :)					
Gap Size (mm)		Gap Location			
74	W. pier				
65	E. pier				
Deck Drainage			4	4	Rust stains at abutment caps and delam cracks at pier caps also affected by leakage.
Drains Clogged (Y/N)					
Curbs/Median			5	4	Spall in North curb near pier 1, 100 x 150. Transverse cracking. Delam crack outside ost #2 SW corner.
(Curb Type : Standard)					
Scaling (Percent Area)		5			
Bridge Rail			7	7	6th post from SW, hole rusted through near base. 10% of A/B have insufficient thread. Grout pads deteriorating.
(Type : GALVANIZED STEEL BRIDGE TUBE)					
Bridge Rail Posts			4	4	
(Type : GALVANIZED POST STEEL; GALVANIZED POST STEEL)					
Bridge Rail/Posts Coating			4	4	Base plate corroding.
(Type : GALVANIZED)					
Sidewalk			X	X	Minor HLD to G11S2
Girder Detail Ratings					
	N (count)	1 (count)	2 (count)	3 (count)	
Last				3	
Now	0	0	0	4	
Girders			3	3	Small rust spots from rebar chairs coming through the concrete of girders, all near pier ends. Rust staining & longitudinal crack @ G2/S3 abutment end - photo. G3/S2 light delam @ East pier. Outside face of G1/SP1 spalled due to insufficient cover over stirrups - photo. SP3 & SP1 near abutment narrow intermittent long cracks G2-G9
Cracking (Y/N)		Yes			
Spalling (Percent Area)		1			
(Number Of Girders : 33)					

Superstructure				
Bridge Component		Last	Now	Explanation of Condition
(Primary Span : RD, 3 Spans, Lengths(m): 9.1-18.3-9.1, A-Ident Number:)				
Diaphragms/Cross Frame		X	X	
Bearings		7	7	
Temperature (deg. C)	18			
(Expansion Type : REINFORCED PAD BEARING)				
(Fixed Type :)				
Coating Adequate (Y/N)	Yes			
Functioning (Y/N)	Yes			
Deck Underside		5	X	See girder rating
Stains (Percent Area)	1			
Span Alignment Problems				
Vertical (Y/N)	No			Girders not centered over pier caps - photo.
Horizontal (Y/N)	Yes			
Superstructure General Rating		3	3	
Substructure				
Bridge Component		Last	Now	Explanation of Condition
Abutments				
Bearing Seats/Caps		5	5	Stained by leaking joint above. Narrow cracks @ 1m spacing with rust staining.
(Type : CONCRETE)				
Backwalls/Breastwalls		5	5	
Wingwalls		4	5	
Piles		N	N	
Paint/Coating		5	5	
Abutment Stability		6	6	
Scour/Erosion		4	4	Drains along West wingwall & gets under slope protection. Seepage at abutment joints may be irritant as well. Wide cracks in headslope concrete protection.
Piers/Bents				
(Type : PIER-COLUMN)				
Bearing Seats/Caps		4	4	Delam cracks both piers. Staining from deck drainage. Wide crack by pile 2 on pier 2. Narrow cracks at other locations.
(Type : CONCRETE)				
(Total Number of Bearing Piles : 7:7)				
Pier Shaft/Piles		7	7	
Bracing/Struts/Sheathing		X	X	
Nose Plate		X	X	
Paint/Coating		4	4	Paint is chalky. Superficial rust on 5%. Green.
(Colour Description :)				
(Colour Code :)				
Pier Stability		5	5	Slope protection buckled against pier columns, both piers.
Scour		X	X	
Debris (Y/N)	No			
Substructure General Rating		4	4	

Structure Usage				
		Last	Now	Explanation of Condition
Grade Separation				
Road Alignment		8	8	
Traffic Safety Features		X	X	
Type	None			
Slope Protection		4	4	Slope protection tight against piling with 200mm gap on down side. Sliding, gaps around piles. East slope protection down 180mm out 110, & West slope protection down 20mm out 110. Slope protection buckling bottom 2 sections on West side. (No movement of slope protection since 14/June/2005.
(Type : CONCRETE; CONCRETE)				
Bank Stability		5	5	
Drainage		6	5	Ponding at toe.
Grade Separation General Rating		4	4	

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							
SEAL DECK							
OVERLAY DECK							
REPAIR/REPLACE DECK JOINTS	2012	Replace missing cover plate bolt.					
RESET/ PAINT BEARINGS							
WASHING							
SHOTCRETE REPAIRS							
REPAIR ABUTMENT SCOUR/EROSION	2012	Modify drainage to prevent undermining of slope protection. Seal gap between top of concrete slope protection/breastwall.					
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION							
OTHER ACTION	2012	Assess girders for repairs or replacement.(if not done)					
OTHER ACTION	2012	Replace missing approach rail bolt & damaged posts @ NE.					
OTHER ACTION	2012	Patch curb @ SW under post #2					
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	38.9/38.9	Sufficiency Rating (Last/Now) (%)	47.3/47.3	Est. Repl. Yr	2023	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Monitor girder & pier cap cracking.		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	Kris Bosters		Previous Assistant's Name				
Next Inspection Date	09-May-2014		Previous Inspection Date	06-Oct-2010			
Inspection Cycle (Default) (months)	21						
Comment							