

Bridge Inspection												
Bridge File Number	77521 S-1 Bridge					Form Type	PSR					
Year Built/Year Supstr	1975/1975					Lot No.	2					
Bridge or Town Name	ACHESON					Inspector Name	Kris Bosters					
Located Over	16A:16 R1 5.830;16A:16 L1 5.828;RAMP 98-1 C					Inspector Class	BR CLS A					
Located On	60:02 R1 31.766;60:02 L1 31.770					Assistant Name						
Water Body Cl./Year						Assistant Class						
Navigabil. Cl./Year						Inspection Date	17-Dec-2012					
Legal Land Location	NW SEC 34 TWP 52 RGE 26 W4M					Data Entry By	Theresa Lacusta					
Longitude, Latitude	-113:45:45, 53:32:26					Data Entry Date	16-Jan-2013					
Road Authority	Alberta Transportation (AIT)					Reviewer Name	Eric Carcoux					
Contract Main. Area	CMA11					Review Date	19-Dec-2012					
Clear Roadway/Skew	16.8 /					Dept. Reviewer Name	Paul Catt					
AADT/Year	12,560 / 2011 (A)					Dept. Review Date	18-Jan-2013					
Road Classification	RAU-209-110					Follow-Up By						
Detour Length (km)	3											
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: 16A L1 5.4m, 16A R1 5.4m									
Posted Vertical Clearance (Y/N)			Yes									
Posted:	Lane	EB	On Bridge (m)	5.5	In Advance (Y/N)	Yes	Lane	WB	On Bridge (m)	5.5	In Advance (Y/N)	Yes
Remarks												

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			Not req'd.									

Hazard Marker At Bridge (Y/N)	No											
Remarks	Not req'd.											
Other Sign Types	Information											

Utilities (Located at)												
Utility Attachments												
Telephone						Gas						
Power						Municipal						
Others	Light standards, ASCM SE corner.					Problem (Y/N)	No					
Remarks												

Approach Road												
			Last	Now	Explanation of Condition							
Horizontal Alignment			7	7	Typical, grade separation with on & off ramps.							
Vertical Alignment			7	7	(6.3 SBL 7.1 NBL.)							
Roadway Width (m)			13.400		Chipseal higher than joints creates bump.							
Approach Bump			7	5	Pothole N end SBL.							
Guardrail (Y/N)			Yes		Insufficient post off each corner. SW shortest. Missing connection bolt @ 1st post SW corner.							
Guardrail			4	N	SW corner-2 sections W. beam damaged, 1 post broken.-photo 2 split posts @ SE corner-photo-06-Oct-2012							
Length (m)			26.000									
Current Standard (Y/N)			No		Too much snow to view.							
Termination Type			Turned Down		2 posts and bridge rail connection dmgd at SE.-photo							

Approach Road					
			Last	Now	Explanation of Condition
Drainage			4	N	Water from drain trough @ NE corner drains below concrete slope protection.-photo-06-Oct-2010
Approach Road General Rating			7	7	
Superstructure					
Bridge Component			Last	Now	Explanation of Condition
(Primary Span : VF, 4 Spans, Lengths(m): 24.4-32-27.4-24.4, A-Ident Number:)					
Special Features					
Special Feature			7	7	Underslung beams installed along VF girders. Overlay has been post tensioned.
(Type : EXT LATER POST TENS)					
Special Feature				7	
(Type : UNDERSLUNG DIAPHR)					
Wearing Surface/Deck Top Detail Ratings					
	N (%)	1 (%)	2 (%)	3 (%)	Snow along gutters.
Last					
Now	20.0				
Wearing Surface			6	6	Narrow longitudinal and transverse cracking. FRSF O/L
(Material Type : CONCRETE - CONVENTIONAL CHIP SEAL COAT)					
(Thickness(mm) : 50)					
Lateral Connection Problem (Y/N)	No				
Deck Top			N	N	
Deck Rideability			7	5	Chipseal is higher than joints creating rough ride.
Deck Joints			4	4	Both abutment finger joints noisy, slapping under traffic.-06-Oct-2010 Scaling on paving lip SA, NBL. Joints not slapping 17-Dec-2012
Temperature (deg. C)		-8			
(Expansion Type : FINGER PLATES;GLAND (WABO-MAUER, TRANSFLEX, ETC))					
(Fixed Type : GLAND (WABO-MAUER, TRANSFLEX, ETC))					
Gap Size (mm)		Gap Location			
69		N. abut			
45		pier 3			
49		pier 2			
50		pier 1			
70		S. abut			
Deck Drainage			5	N	No evidence of joint leakage.-06-Oct-2010 No deck drains. Snow covered.
Drains Clogged (Y/N)		No			
Curbs/Median			5	N	Light scaling, couple patches. -06-Oct-2010 Cracked exterior below bridge posts. Snow covered.
(Curb Type : Standard)					
Scaling (Percent Area)		5			
Bridge Rail			7	5	Missing 2 anchor nuts.-photo 20% of East and West side have insufficient thread. Numerous nuts cut in half.-06-Oct-2010
(Type : GALVANIZED STEEL BRIDGE TUBE)					
Bridge Rail Posts			3	3	
(Type : GALVANIZED POST STEEL;GALVANIZED POST STEEL)					Base of posts partially snow covered. Base of posts rusted.
Bridge Rail/Posts Coating			7	5	
(Type : GALVANIZED)					
Sidewalk			X	X	

Superstructure						
Bridge Component				Last	Now	Explanation of Condition
(Primary Span : VF, 4 Spans, Lengths(m): 24.4-32-27.4-24.4, A-Ident Number:)						
Girder Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last	0	0	0	8		
Now				8		
Girders				3	3	Typical hairline VF chamfer cracks, some extending into deck underside. All ext. girders have vertical cracking & spalls at ends.-photo
Cracking (Y/N)		Yes				
Spalling (Percent Area)		2				
(Number Of Girders : 44)						
Diaphragms/Cross Frame				6	5	Several end diaphragms have vertical cracks @ piers @ South abutment.
Bearings				4	4	NE shear block spalled due to lateral pressure.-photo P & P3 bearings insp from headslopes. P2 bearings not visible. S4G1 spalled bearing grout pad. -photo Bottom masonry plates have scaling rust.
Temperature (deg. C)		-8				
(Expansion Type : REINFORCED NEOPRENE BEARING WITH TEFLON AND STAINLESS STEEL)						
(Fixed Type : REINFORCED NEOPRENE BEARING WITH TEFLON AND STAINLESS STEEL)						
Coating Adequate (Y/N)		No				
Functioning (Y/N)		Yes				
Deck Underside				6	6	Minor staining around deck drains. Form left in place @ S4G7.
Stains (Percent Area)		1				
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				6	6	
(Type : CONCRETE)						
Backwalls/Breastwalls				5	5	
Wingwalls				6	4	1m long spall top of SW wingwall.
Piles				N	N	
Paint/Coating				8	5	less than 5% peeling.
Abutment Stability				7	7	
Scour/Erosion				X	X	
Piers/Bents						
(Type : PIER-COLUMN)						Vertical crack over access panel, East end pier 3, South side. Scaling/delamination/cracking @ W. end P3.-photo
Bearing Seats/Caps				4	4	
(Type : CONCRETE)						Medium scaling bottom of cap pier 2.
(Total Number of Bearing Piles : 6:6:6)						
Pier Shaft/Piles				7	7	Spall N ed pile 4 pier 2. Most piles have hairline map cracks.

Substructure				
Bridge Component		Last	Now	Explanation of Condition
Bracing/Struts/Sheathing		X	X	
Nose Plate		X	X	
Paint/Coating		6	6	Peeling at ends of caps. Pigmented sealer.
(Colour Description :)				
(Colour Code :)				
Pier Stability		8	8	
Scour		X	X	
Debris (Y/N)	No			
Substructure General Rating		4	4	

Structure Usage				
		Last	Now	Explanation of Condition
Grade Separation				
Road Alignment		7	7	
Traffic Safety Features		5	4	Snow covered. 3 broken posts and 2 damaged rail visible S side EBL.-photo
Type	Flexbeam			
Slope Protection		4	4	Max gap is 60mm on North headslope with 100mm settlement. Max gap is 45mm on South headslope. At top 50mm settlement South slope protection buckled @ toe. NE slope protection drain trough cracked & allowing water under slope protection. -photo
(Type : CONCRETE; CONCRETE)				
Bank Stability		5	5	
Drainage		4	N	Ponding at bottom of North headslope.-photo-06-Oct-2010 Too much snow to view.
Grade Separation General Rating		4	4	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
REPAIR/REPLACE BRIDGE RAIL	2013	Replace 2 nuts, if not already done.					
GALVANIZE/PAINT BRIDGE RAIL							
SEAL CURBS							
PATCH DECK							
SEAL DECK							
OVERLAY DECK							
REPAIR/REPLACE DECK JOINTS							
RESET/ PAINT BEARINGS							
WASHING							
SHOTCRETE REPAIRS							
REPAIR ABUTMENT SCOUR/EROSION							
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION							
OTHER ACTION	2013	Replace vertical clearance signs to show proper clearance.					
OTHER ACTION	2013	Seal cracked NE abutment slope protection drain trough, if not already done.					
OTHER ACTION	2013	Repair guardrail and posts @ SE & SW corners & S side Hwy 16A.					
OTHER ACTION	2013	Remove gravel from base of North headslope to improve drainage, if not already done.					
OTHER ACTION	2013	Patch pothole in SBL N approach.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	38.9/38.9	Sufficiency Rating (Last/Now) (%)	49.6/42.8	Est. Repl. Yr	2035	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Monitor cracks in girder ends and deterioration @ P3. Monitor cracked shear block.		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	Shane Hall		Previous Assistant's Name				

Next Inspection Date	17-Sep-2014	Previous Inspection Date	06-Oct-2010
Inspection Cycle (Default) (months)	21		
Comment			