

Bridge Inspection										
Bridge File Number	77994 S-1 Bridge					Form Type	SG			
Year Built/Year Supstr	1977/1977					Lot No.				
Bridge or Town Name	LEDUC					Inspector Name	Wade Nanninga			
Located Over	2:32 R1 2.451;2:32 L1 2.437					Inspector Class	BR CLS A			
Located On	LOCAL ROAD;RAMP 67-1 A					Assistant Name				
Water Body Cl./Year						Assistant Class				
Navigabil. Cl./Year						Inspection Date	25-Apr-2013			
Legal Land Location	SE SEC 2 TWP 50 RGE 25 W4M					Data Entry By	Lisa Fairhurst			
Longitude, Latitude	-113:32:58, 53:17:04					Data Entry Date	03-May-2013			
Road Authority	Alberta Transportation (AIT)					Reviewer Name				
Contract Main. Area	CMA11					Review Date				
Clear Roadway/Skew	7.6 / 40 deg. (RHF)					Dept. Reviewer Name				
AADT/Year	1,800 / 2013 (E)					Dept. Review Date				
Road Classification						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: 2 L1 5.4m, 2 R1 5.4m											
Posted Vertical Clearance (Y/N)	Yes											
Posted:	Lane	NB	On Bridge (m)	5.5	In Advance (Y/N)	Yes	Lane	SB	On Bridge (m)	5.4	In Advance (Y/N)	Yes
Remarks	Confirm & change clearance signs to 100mm less than "required".											
Required Load Posting (t)	Single				Semi				Truck Train			
Posted Loading (t)	Single				Semi				Truck Train			
Posted:	Lane	NB	At Junction (Y/N)		In Advance (Y/N)			At Bridge (Y/N)				
Posted:	Lane	SB	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												
Other Sign Types	Information, Warning, Off Ramp Speed.											

Utilities (Located at)				
Utility Attachments				
Telephone			Gas	North of West abutment.
Power			Municipal	
Others			Problem (Y/N)	No
Remarks				

Approach Road				
		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Typical grade separation.
Vertical Alignment		6	6	
Roadway Width (m)	8.600			Slight bump @ West end.
Approach Bump		6	5	Cracks /settled @ approaches.
Guardrail (Y/N)	Yes			Missing splce bolts(x8) @ SW transition.-photo
Guardrail		4	4	2 split posts @ NE
Length (m)	30.000			
Current Standard (Y/N)	No			
Termination Type	Turned Down			
Drainage		3	3	All troughs broken. Drain trough @ NW & SW corners broken away from headslope - photo. Drain trough @ NE corner broken up - photo. Water drains under approach slab @ NW & NE corner.-photo
<b>Approach Road General Rating</b>		<b>6</b>	<b>6</b>	

Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Primary Span : <b>WG, 3 Spans, Lengths(m): 57.9-64-42.7, A-Ident Number: A0807-01</b> )					
<b>Special Features</b>					
Special Feature			X		
(Type : )					
Special Feature			X		
(Type : )					
Wearing Surface/Deck Top Detail Ratings					
	N (%)	1 (%)	2 (%)	3 (%)	
<b>Last</b>	0	0	0	20	
<b>Now</b>	0.0	0.0	0.0	20.0	
Wearing Surface			3	3	Chip seal wearing surface peeling on 20% - photo. Chip seal doesn't extend to curbs, 300mm short. Transverse cracks @ 2m spacing.
(Material Type : <b>CONCRETE - CONVENTIONAL CHIP SEAL COAT</b> )					
(Thickness(mm) : <b>50</b> )					
Deck Top			N	N	
Deck Rideability			6	6	
Deck Joints			4	4	Joint plumbing misses troughs @ NW & SE corners - photo. Joints draining onto curtain walls - photo.
Temperature (deg. C)		5			
(Expansion Type : <b>FINGER PLATES</b> )					
(Fixed Type : )					
Gap Size (mm)		Gap Location			
79		East abutment			
75		West abutment			
Deck Drainage			4	4	Appears to be leaking through abutment joints & staining wingwalls @ SE & NW corners - photo.
Drains Clogged (Y/N)		No			
Curbs/Median			3	3	Staining outside face from corrosion of rail post anchors. Rust staining & cracking & delamination on inside vertical face 30% of South curb - photo. Several spalls on N & S curb.-photo
(Curb Type : <b>Standard</b> )					
Scaling (Percent Area)		10			
Bridge Rail			8	8	Approx 50% insufficient threads.-photo
(Type : <b>GALVANIZED STEEL BRIDGE TUBE</b> )					
Bridge Rail Posts			4	4	
(Type : <b>GALVANIZED POST STEEL;GALVANIZED POST STEEL</b> )					
Bridge Rail/Posts Coating			7	7	
(Type : <b>GALVANIZED</b> )					
Sidewalk			X	X	
<b>Girder/Beam</b>					
Cover Plate			X	X	Steel box girders High load damage on NBL (scrapes) & SBL (dent), minor, no problem.
Flange			6	6	
Web			8	8	
Stiffeners			8	8	
Splice			8	8	
Weld			7	7	
Diaphragms/Cross Frame			7	7	

Superstructure				
Bridge Component		Last	Now	Explanation of Condition
(Primary Span : <b>WG, 3 Spans, Lengths(m): 57.9-64-42.7, A-Ident Number: A0807-01</b> )				
Paint Condition		5	4	Slight rust flange edges, pin holes visible. Yellow.
(Colour Description : )				
(Colour Code : )				
Touchup Required (Y/N)	No			
Bearings		5	5	Piers viewed with binoculars, appears OK.  (Coating on east abutment peeling. Corrosion on bearings visible. - Jul/2011)
Temperature (deg. C)	5			
(Expansion Type : <b>POT BEARING</b> )				
(Fixed Type : <b>POT BEARING</b> )				
Coating Adequate (Y/N)	No			
Functioning (Y/N)	Yes			
Deck Underside		4	4	Medium transverse cracks with efflorescence in span 1 & 2. Corroded areas with delaminations along cracks - photos.
Stains (Percent Area)	1			
<b>Span Alignment Problems</b>				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			
<b>Superstructure General Rating</b>		<b>4</b>	<b>4</b>	
Substructure				
Bridge Component		Last	Now	Explanation of Condition
<b>Abutments</b>				
Bearing Seats/Caps		7	7	
(Type : <b>CONCRETE</b> )				
Backwalls/Breastwalls		7	6	
Wingwalls		6	5	Spalls @ base corners of West curtain walls.-photo
Piles		N	N	
Paint/Coating		4	4	25% peeling/flaking on wingwalls.
Abutment Stability		8	8	
Scour/Erosion		X	X	
<b>Piers/Bents</b>				
(Type : <b>PIER-COLUMN</b> )				Concrete pillars. 2/pier.
Bearing Seats/Caps		X	7	
(Type : <b>CONCRETE</b> )				
(Total Number of Bearing Piles : <b>0:0</b> )				
Pier Shaft/Piles		8	8	
Bracing/Struts/Sheathing		8	8	
Nose Plate		X	X	
Paint/Coating		7	7	Beige.
(Colour Description : )				
(Colour Code : )				
Pier Stability		8	8	
Scour		X	X	
Debris (Y/N)	No			
<b>Substructure General Rating</b>		<b>7</b>	<b>7</b>	

Structure Usage				
		Last	Now	Explanation of Condition
<b>Grade Separation</b>				
Road Alignment		8	8	
Traffic Safety Features		7	7	
Type	Guardrail			
Slope Protection (Type : <b>CONCRETE; CONCRETE</b> )		4	4	Erosion between abutment & top of concrete slope protection causing void underneath. Pulled away from abutments up to 440mm @ West - photos. Pulled away 260mm @ East - photo. Wide crack in West headslope.
Bank Stability		5	6	
Drainage		6	6	
<b>Grade Separation General Rating</b>		<b>5</b>	<b>6</b>	



Special Comments for Next Inspection	Monitor cracks/delams @ deck underside.		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	25-Jan-2015	Previous Inspection Date	14-Jul-2011		
Inspection Cycle (Default) (months)	21				
Comment					