

Bridge Inspection									
Bridge File Number	75058 N-1 Bridge					Form Type	CON		
Year Built/Year Supstr	1961/1961					Lot No.	2		
Bridge or Town Name	LEDUC					Inspector Name	Wade Nanninga		
Located Over	BLACK GOLD DRIVE;CPR					Inspector Class	BR CLS A		
Located On	2:30 R1 34.389					Assistant Name			
Water Body Cl./Year						Assistant Class			
Navigabil. Cl./Year						Inspection Date	25-Apr-2013		
Legal Land Location	SW SEC 26 TWP 49 RGE 25 W4M					Data Entry By	Theresa Lacusta		
Longitude, Latitude	-113:33:42, 53:15:27					Data Entry Date	01-May-2013		
Road Authority	Alberta Transportation (AIT)					Reviewer Name	Eric Carcoux		
Contract Main. Area	CMA11					Review Date	01-May-2013		
Clear Roadway/Skew	11.6 /					Dept. Reviewer Name	Brent Herrick		
AADT/Year	37,980 / 2012 (A)					Dept. Review Date	01-May-2013		
Road Classification	RAD-412.4-120					Follow-Up By			
Detour Length (km)	1								
Allowable Load (t):	Single	CS1 27 GIRDER	Semi	CS2 49	Train	CS3 64 GIRDER	----> On Critical Spans ---->Critical Member		
Design Loading:	HS20					----> Primary Span			

Posting Information												
Required Vert. Clearance Posting (m)												
Posted Vertical Clearance (Y/N) Yes												
Posted:	Lane	EB	On Bridge (m)	In Advance (Y/N)	Lane	WB	On Bridge (m)	7.9	In Advance (Y/N)	Yes		
Remarks		EB posted on SB bridge.										
Required Load Posting (t)			Single	28	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)		In Advance (Y/N)		At Bridge (Y/N)					
Remarks		Not required.										
Hazard Marker At Bridge (Y/N)			No									
Remarks		Not required.										
Other Sign Types			Information.									

Utilities (Located at)									
Utility Attachments									
Telephone						Gas			
Power	NE corner					Municipal			
Others	Light standard East side					Problem (Y/N)	No		
Remarks									

Approach Road				
		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Hwy 2A on ramp leading up to bridge.
Vertical Alignment		7	7	
Roadway Width (m)	11.000			
Approach Bump		6	6	4 dents No FLEAT
Guardrail (Y/N)	Yes			
Guardrail		3	5	
Length (m)	63.000			
Current Standard (Y/N)	No			
Termination Type	Turned Down			
Drainage		4	4	Concrete drain trough damaged @ 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 : CT, 4 Spans, Lengths(m): 14.6-20.1-20.1-14.6, A-Ident Number: )					
<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	0	
<b>Now</b>					
Wearing Surface			4	4	30% of chip seal worn off in east lane only (photo)
(Material Type : <b>CONCRETE - CONVENTIONAL CHIP SEAL COAT</b> )					
(Thickness(mm) : <b>50</b> )					
Deck Top			N	N	FRSF overlay.
Deck Rideability			7	7	
Deck Joints			8	8	
Temperature (deg. C)		10			
(Expansion Type : <b>GLAND (WABO-MAUER, TRANSFLEX, ETC)</b> )					
(Fixed Type : )					
Gap Size (mm)		Gap Location			
55	North abutment				
60	South abutment				
Deck Drainage			7	7	.
Drains Clogged (Y/N)		No			
Curbs/Median			8	7	
(Curb Type : <b>Standard</b> )					
Scaling (Percent Area)		0			
Bridge Rail			9	8	
(Type : <b>GALVANIZED STEEL BRIDGE TUBE;BRIDGE TUBE</b> )					
Bridge Rail Posts			9	8	
(Type : <b>GALVANIZED POST STEEL</b> )					
Bridge Rail/Posts Coating			8	8	
(Type : <b>GALVANIZED</b> )					
Sidewalk			X	X	
Girders			5	4	Narrow flexural shrinkage cracks. Spall on G1SP1 @ South end 200mmx300mm not related to strand. (photo)
Diaphragms/Cross Frame			5	5	Girders are jammed against anchor bolts at North abut & 10% diaphragms cracked.
Bearings			5	5	No change in gap size at South abut indicates potential issue.-No visible signs of distress. Girders are jammed against abutments.
Temperature (deg. C)		10			
(Expansion Type : <b>SLIDING PLATE</b> )					
(Fixed Type : <b>PINNED BEARING</b> )					
Coating Adequate (Y/N)		No			
Functioning (Y/N)		No			
Deck Underside			5	5	Transverse cracks in the deck underside. 1 crack in S2 has effloresence and rust staining. Numerous patches.
Stains (Percent Area)		1			

Superstructure				
Bridge Component		Last	Now	Explanation of Condition
(Primary Span : CT, 4 Spans, Lengths(m): 14.6-20.1-20.1-14.6, A-Ident Number: )				
<b>Span Alignment Problems</b>				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			
<b>Superstructure General Rating</b>		<b>5</b>	<b>4</b>	
Substructure				
Bridge Component		Last	Now	Explanation of Condition
<b>Abutments</b>				
Bearing Seats		7	6	
Backwalls/Breastwalls		6	6	
Wingwalls		7	7	
Piles		N	N	
Paint/Coating		X	X	
Abutment Stability		5	5	
Scour/Erosion		7	4	North headslope protection undermined.
<b>Piers/Bents</b>				
(Type : PIER-COLUMN)				
Bearing Seats/Caps		7	7	
(Type : CONCRETE)				
Pier Shaft/Piles		7	4	Delam crack pier 2 pile 3.
Nose Plate		X	X	
Paint/Coating		X	X	
(Colour Description : )				
(Colour Code : )				
Pier Stability		7	7	
Scour		X	X	
Debris (Y/N)	No			
<b>Substructure General Rating</b>		<b>5</b>	<b>4</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Grade Separation</b>				
Road Alignment		8	8	
Traffic Safety Features		4	4	One top rail section broken
Type	Chain link fence			
Slope Protection		4	4	2 panels failed at north H.S. Erosion under slope protection has undermined (photo)
(Type : CONCRETE; CONCRETE)				
Bank Stability		7	7	
Drainage		7	7	
<b>Grade Separation General Rating</b>		<b>4</b>	<b>4</b>	

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							
WASHING							
SHOTCRETE REPAIRS							
REPAIR ABUTMENT SCOUR/EROSION							
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION							
OTHER ACTION	2013	Repair concrete headslope and erosion - mudjack concrete tiles.					
OTHER ACTION	2013	Patch delam in pile 3 pier2.					
OTHER ACTION	2013	Repair concrete drain trough - remove loose section.					
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>55.6/44.4</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>51.9/44.9</b>	Est. Repl. Yr	2030	Maint. Req'd. (Y/N)	Yes
Special Comments for Next Inspection	Monitor bearings.		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							