

Bridge Inspection										
Bridge File Number	74225 -1 Bridge				Form Type	PT TT				
Year Built/Year Supstr	1956/1956				Lot No.	2				
Bridge or Town Name	LAC STE ANNE				Inspector Name	Arnold Assenheimer				
Located Over	STURGEON RIVER, 6.65, WATERCRS-ST				Inspector Class	BR CLS A				
Located On	LOCAL ROAD				Assistant Name					
Water Body Cl./Year					Assistant Class					
Navigabil. Cl./Year					Inspection Date	27-Jul-2012				
Legal Land Location	NE SEC 2 TWP 55 RGE 4 W5M				Data Entry By	Theresa Lacusta				
Longitude, Latitude	-114:28:47, 53:43:46				Data Entry Date	15-Aug-2012				
Road Authority	Alberta Transportation (AIT)				Reviewer Name	Eric Carcoux				
Contract Main. Area	UNDEFINED CMA				Review Date	06-Aug-2012				
Clear Roadway/Skew	7.3 /				Dept. Reviewer Name	Brent Herrick				
AADT/Year	280 / 2012 (E)				Dept. Review Date	16-Aug-2012				
Road Classification	RLU-207G-60				Follow-Up By					
Detour Length (km)	16									
Allowable Load (t):	Single	CS1 28		Semi	CS2 49		Train	CS3 67 STRINGER		----> On Critical Spans ---->Critical Member
Design Loading:	HS15									----> Primary Span

Posting Information										
Required Load Posting (t)	Single			Semi			Truck Train			
Posted Loading (t)	Single			19.0	Semi		27.0	Truck Train		41.0
Posted:	Lane	NB	At Junction (Y/N)	No	In Advance (Y/N)		Yes	At Bridge (Y/N)		No
Posted:	Lane	SB	At Junction (Y/N)	No	In Advance (Y/N)		Yes	At Bridge (Y/N)		No
Remarks										
Hazard Marker At Bridge (Y/N)	Yes									
Remarks	Damaged bridge file plaque, NW truss.									
Other Sign Types	Speed 50 km/hr, curve, information.									

Utilities (Located at)										
Utility Attachments										
Telephone					Gas					
Power					Municipal					
Others					Problem (Y/N)	No				
Remarks										

Approach Road										
			Last	Now	Explanation of Condition					
Horizontal Alignment				6	6	Curve to east and west.				
Vertical Alignment				8	8					
Roadway Width (m)	7.500					Gravel South, paved North.				
Approach Bump				5	8					
Guardrail (Y/N)	Yes					Too low, 340mm high to c/l of rail. Insufficient posts. 2 post to rail bolts at SW. 2 broken posts at SE, 1 at SW.				
Guardrail				3	3					
Length (m)	61.000									
Current Standard (Y/N)	No									
Termination Type	Turn Down									
Drainage				6	4	Hole washed out at SE and erosion @ NE from road drainage.- photos				
Approach Road General Rating				6	6					

Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Primary Span : PT, 3 Spans, Lengths(m): 6.1-30.5-6.1, A-Ident Number: A0255-01)					
Special Features					
Special Feature			X		
(Type :)					
Special Feature			X		
(Type :)					
Wearing Surface/Deck Top Detail Ratings					
	N (%)	1 (%)	2 (%)	3 (%)	
Last					
Now					
Wearing Surface/Deck Top			7	7	
(Material Type : COPPER CHROMATE ARSENATE TREATED TIMBER)					
(Plank Thickness(mm) : 75)					
(Plank Width(mm) : 300)					
Deck Rideability			7	7	
Deck Joints			X	X	
Temperature (deg. C)					
(Expansion Type :)					
(Fixed Type :)					
Gap Size (mm)		Gap Location			
Curbs/Wheel Guards			5	5	Minor scrapes and some cracked blocks but still functional.
(Curb Type : Standard)					
(Type : TREATED TIMBER)					
(Thickness(mm) : 150)					
(Width(mm) : 305)					
Bridge Rail			4	4	Double layer. Missing 4 bolts @ each lap connection. Attached to the verticals. Transition bracket to batter posts only allows for 1 bolt and flexbeam is cut at an angle. Connector broken @ SE. Missing 3 bolt NW steel end posts rail not connected to steel post @ end of truss and 1 at NE.
(Type : GALVANIZED STEEL FLEX BEAM)					
Bridge Rail Posts/Blocking			4	4	
(Type : POST STEEL;POST STEEL)					
Bridge Rail/Posts Coating			6	6	
(Type : PAINT)					
Sidewalk			X	X	

Superstructure						
Bridge Component				Last	Now	Explanation of Condition
(Primary Span : PT, 3 Spans, Lengths(m): 6.1-30.5-6.1, A-Ident Number: A0255-01)						
Wide Load Damage (Y/N)	Yes					Minor dent in bottom flange of L0U1E. Minor kink in U1L2W.
Top Chord			7	7		Missing 2 cover plate bolts on each BC above bearings, all corners.
Batter Posts			6	6		
Diagonals			6	6		1 bolt missing at inside bottom of U1L1E at L1.
Verticals			6	6		Missing mid bolt & hanger bolt in bay 1.
Connections			4	4		9/bay.
Floor Beams			6	6		
Bottom Chord			6	6		Refer to 2009 UT report.
Lateral Bracings			4	4		
(No. of Stringers : 54)						
Stringer Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last						
Now						
Stringers			6	6		
(Type : STEEL)						
(Width(mm) : 170)						
(Depth(mm) : 360)						
(Spacing(mm) : 853)						
Paint Condition			3	3	Superficial corrosion blooming through on 10% of area. Blue and silver.	
(Colour Description :)						
(Colour Code :)						
Touchup Required (Y/N)	No					
Bearings			4	4	Expansion bearings at SE expanded 77mm and SW 74mm with bent anchor bolts and missing washers and nuts. Roller nest cage caught up against AB's. Truss is jammed. SW disc dome displaced 3mm in expanded position.	
Temperature (deg. C)	28					
(Expansion Type : ROLLER NEST BEARING)						
(Fixed Type : DISC & DOME BEARING)						
Functioning (Y/N)	Yes					
Sub Deck/Deck Underside			5	5	Some planks 150 x 305.	
(Material Type : TREATED TIMBER)						
(Plank Thickness(mm) : 150)						
(Plank Width(mm) : 400)						
Defects (Percent Area)	5					
Span Alignment Problems						
Vertical (Y/N)	No					
Horizontal (Y/N)	No					
Superstructure General Rating			4	4		
Superstructure						
Bridge Component				Last	Now	Explanation of Condition
(Secondary Span : TT)						
Special Features						
Special Feature				X		
(Type :)						
Special Feature				X		
(Type :)						
Wearing Surface/Deck Top Detail Ratings						
	N (%)	1 (%)	2 (%)	3 (%)		
Last						
Now						

Superstructure						
Bridge Component				Last	Now	Explanation of Condition
(Secondary Span : TT)						
Wearing Surface/Deck Top				7	7	
(Material Type : COPPER CHROMATE ARSENATE TREATED TIMBER)						
(Plank Thickness(mm) : 75)						
(Plank Width(mm) : 300)						
Deck Rideability				7	4	
Wheel Guards				4	4	Wheelguards are attached to the subdeck only and not to the stringers as they should be. Missing nut @ NW connector WG to post.
(Curb Type : Standard)						
(Type : TREATED TIMBER)						
(Thickness(mm) : 100)						
(Width(mm) : 305)						
Bridge Rail				4	4	Double layer. Broken bolts @ connection from TT span to truss @ SE on transition. Missing 4 bolts @ each lap connection. Missing 1 stringer to post bolt at NW corner and 1 nut washer on post to rail bolt at NE corner.
(Type : GALVANIZED STEEL FLEX BEAM)						
Bridge Rail Posts				4	4	
(Type : TREATED TIMBER;TREATED TIMBER)						
Bridge Rail/Posts Coating				6	6	
(Type : GALVANIZED)						
(No. of Stringers : 17;17)						17/span x 2.
Stringer Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)	150 x 400 west span.	
Last						
Now						
Stringers				6	6	
(Type : TREATED TIMBER)						
(Width(mm) : 150)						
(Depth(mm) : 350)						
(Spacing(mm) : 490)						
Sub Deck/Deck Underside				5	5	
(Material Type : TREATED TIMBER)						
(Plank Thickness(mm) : 100)						
(Plank Width(mm) : 300)						
Defects (Percent Area)	1					
Span Alignment Problems						
Vertical (Y/N)		No				
Horizontal (Y/N)		No				
Superstructure General Rating				5	5	
Substructure						
Bridge Component				Last	Now	Explanation of Condition
Abutments						
(Extended Backwall Piles (Y/N) : Y)						
(Extended Backwall Piles Spacing(mm) : 2000)						
(Total Number of Caps/Corbels : 5:3)						300 x 300 x 3 @ South abutment.
Bearing Seats/Caps/Corbels Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)	4 stacked caps at North abutment. Double 305 x 305 with 100 x 305 top and bottom.	
Last						
Now						
Bearing Seats/Caps/Corbels				6	5	
(Type : TREATED TIMBER)						
(Depth(mm) : 300)						
(Width(mm) : 300)						

Substructure							
Bridge Component		Last	Now	Explanation of Condition			
Backwalls/Breastwalls		5	5				
Greatest Height (m)	1.40						
Wingwalls		4	4	SE corner has loose planks. Wing pile NW & NE corners have rot in tops. Extended backwalls to form wings.			
(Total Number of Bearing Piles : 7:7)				1 abandoned pile too low to meet cap, ok. Only 3 piles visible @ the North abutment. Subcap piles not visible. Only top 150mm visible at abutment 1.			
Piles Detail Ratings							
	N (count)	1 (count)	2 (count)				3 (count)
Last	6						
Now	6	0	0				0
Piles		5	5				
Paint/Coating		X	X				
Abutment Stability		7	7				
Scour/Erosion		7	7	Concrete slope protection.			
Piers/Bents							
(Type : PIER-SOLID)				4- 300 x 300 for approach span South. 2- 300 x 300 and 2 - 150 x 300 North pier. Settlement under pier 1 has left a 200mm gap. Vertical crack @ SE in approach soan support concrete.			
(Total Number of Caps/Corbels : 4:4)							
Bearing Seats/Caps/Corbels Detail Ratings							
	N (count)	1 (count)	2 (count)				3 (count)
Last							
Bearing Seats/Caps/Corbels		6	5				
(Type : CONCRETE)							
(Depth(mm) :)							
(Width(mm) :)							
(Total Number of Bearing Piles : 0:0)				Piles not visible.			
Piles Detail Ratings							
	N (count)	1 (count)	2 (count)	3 (count)			
Last							
Now							
Pier Shaft/Piles		7	7				
Greatest Height (m)	2.00						
Bracing/Struts/Sheathing		X	X				
Nose Plate		X	X				
Paint/Coating		X	X				
(Colour Description :)							
(Colour Code :)							
Pier Stability		7	7				
Scour		7	7				
Debris (Y/N)		No					
Substructure General Rating		6	5				
Structure Usage							
		Last	Now	Explanation of Condition			
Channel							
(U/S Direction : W)				Lake both sides.			
(D/S Direction : E)							
Alignment		7	7				

Structure Usage				
		Last	Now	Explanation of Condition
Bank Stability		7	7	
HWM (m below Top of Curb)				HWM not visible. Old piles.
Drift (Y/N)	No			
Slope Protection (Type : NATURAL; NATURAL)		5	5	Uneven settlement/protection, adequate.
Guidebank/Spurs		X	X	
Adequacy of Opening		7	7	
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		5	5	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
REPAIR/REPLACE BRIDGE RAIL	2012	Repair broken connector, add splice bolts. New design required. Raise approach rail.					
RETROFIT BRIDGE RAIL							
PATCH DECK							
REPLACE STRIP DECK							
REPLACE SUB DECK							
RESET/ PAINT BEARINGS	2012	Reset pier 1 roller nest bearings. Add A/B nuts.					
REPAINT SUPERSTRUCTURE	2012	Heat straighten 4 members and grind out 1 notch. Install 1 structural bolt. Install 4 steel end posts. Install 1 hanger bolt. Install 8 cover plate bolts on bottom chord. (See UT report)					
STRAIGHTEN/REPLACE MEMBERS	2012	Repaint superstructure.					
WASHING							
CORE TIMBER CAPS/CORBELS							
REPAIR/REPLACE TIMBER CAPS							
REPAIR ABUTMENT SCOUR/EROSION							
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION							
OTHER ACTION	2012	Replace 3 broken approach rail posts.					
OTHER ACTION	2012	Patch approach hole SE & erosion NE.					
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	55.6/50.0	Sufficiency Rating (Last/Now) (%)	63.9/61.1	Est. Repl. Yr	2030	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection			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	Garry Roberts		Previous Assistant's Name	Randy Bredo			
Next Inspection Date	27-Oct-2015		Previous Inspection Date	30-Jun-2009			
Inspection Cycle (Default) (months)	39						
Comment							