Bridge Inspection

Bridge File Number	78151 -1 Bridge	Form Type	PSR
Year Built/Year Supstr	1981/1981	Lot No.	2
		Inspector Name	Wade Nanninga
Bridge or Town Name	FT MCMURRAY	Inspector Class	BR CLS A
Located Over	63:11 L1 10.646;63:11 R1 10.622	Assistant Name	
Located On	14093:02 L1 0.049;14093:02 R1 0.048	Assistant Class	
Water Body Cl./Year		Inspection Date	16-Nov-2011
Navigabil. Cl./Year		Data Entry By	Lisa Fairhurst
Legal Land Location	SE SEC 16 TWP 89 RGE 9 W4M	Data Entry Date	12-Dec-2011
Longitude, Latitude	-111:21:59, 56:42:52	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	23-Nov-2011
Contract Main. Area	CMA07	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	23.2 / -5 deg. (LHF)	Dept. Review Date	19-Dec-2011
AADT/Year	2,000 / 2011 (E)	Follow-Up By	
Road Classification			
Detour Length (km)	5		

Allowable Load (t):	Single	CS1 28	Semi	CS2 49	Train	CS3 62	---> On Critical Spans --->Critical Member	
Design Loading:		MS230					---> Primary Span	

Posting Information

Required Vert. Clearance Posting (m)				UNDER: 63 L1 5.4m, 63 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)	5.5	In Advance (Y/N)	Yes
Remarks											

Required Load Posting (t)			Single		Semi		Truck Train	
Posted Loading (t)			Single		Semi		Truck Train	
Posted:	Lane	EB	At Junction (Y/N)	No	In Advance (Y/N)	No	At Bridge (Y/N)	No
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	Information signs for exits.

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power	3 Wire W row	Municipal	Wire box under girders @ NW. Rusted, exposing wires
Others	Street lights, traffic lights	Problem (Y/N)	Yes
Remarks			

Approach Road

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	50 kph speed limit on structure and 70 kph speed limit beneath. Intersections both ends.
Vertical Alignment		7	7	
Roadway Width (m)	23.000			
Approach Bump		5	5	
Guardrail (Y/N)	Yes			Insufficient posts. Missing 8 splice bolts @ SE - photo. NE - 36.4m radius; SE - 15.2m; NW & SW - 99m radius. Missing 14 splice bolts @ NW.-Damaged @ NE, NW, SW
Guardrail		4	4	
Length (m)	15.200			
Current Standard (Y/N)	No			
Termination Type	Turned Down			
Drainage		3	N	(Approach drainage run in hole along NW curb - photo. Void 300mm-filled with dirt. - 9 Mar 10)
Approach Road General Rating		**6**	**6**	

Superstructure

Bridge Component		Last	Now	Explanation of Condition
(Primary Span : **FM, 2 Spans, Lengths(m): 28-26, 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	15.0	0.0	0.0	0.0
Wearing Surface		6	6	Concrete with chipseal overlay Deck grooves worn in wheelpaths. Chipseal is worn off at wheelpath next to both curbs.
(Material Type : **CONCRETE**)				
(Thickness(mm) : **50**)				
Lateral Connection Problem (Y/N)	No			
Deck Top		N	N	
Deck Rideability		7	7	
Deck Joints		4	3	Grader damage(minor) at E abut., North lane, paving lip. Leaking onto E abutment under G2
Temperature (deg. C)	-15			
(Expansion Type : **GLAND (WABO-MAUER, TRANSFLEX, ETC)**)				
(Fixed Type :)				
Gap Size (mm)	Gap Location			
70	East abutment			
80	Pier			
100	West abutment			
Deck Drainage		5	5	No deck drains.Bridge on grade drains to East.
Drains Clogged (Y/N)				
Curbs/Median		3	N	(Severe scaling exposing water stop @ S2 North curb.-photo 9 Mar 2010)
(Curb Type : **Standard**)				
Scaling (Percent Area)	20			
Bridge Rail		7	7	Not enough thread in3 AB
(Type : **GALVANIZED STEEL BRIDGE TUBE**)				
Bridge Rail Posts		4	4	
(Type : **GALVANIZED POST STEEL;GALVANIZED POST STEEL**)				
Bridge Rail/Posts Coating		7	7	
(Type : **GALVANIZED**)				
Sidewalk		4	N	South side only. (1.5m wide local scaling over pier. East approach for South sidewalk settled, trip hazard.-exposed rebar at E. abut.-photo 9 Mar 2010)
Girder Detail Ratings				
	N (count)	1 (count)	2 (count)	3 (count)
Last	0	0	0	2
Now	0	0	0	0

Spalling/wide
Vertical crack at ends of S1G16 & S2G16.

Superstructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
(Primary Span : **FM, 2 Spans, Lengths(m): 28-26, A-Ident Number:**)				
Girders		3	4	Typical chamfer cracks,extending into underside, medium cracks along bottom of leg at ends Minor HLP midspan SP2
Cracking (Y/N)	Yes			
Spalling (Percent Area)	1			
(Number Of Girders : **32**)				
Diaphragms/Cross Frame		6	6	
Bearings		4	4	Grout pad at SP2 G1 & G2-widecrack- W abut, piers E abut
Temperature (deg. C)	-5			
(Expansion Type : **REINFORCED NEOPRENE BEARING WITH TEFLON AND STAINLESS STEEL**)				
(Fixed Type : **REINFORCED NEOPRENE BEARING WITH TEFLON AND STAINLESS STEEL**)				
Coating Adequate (Y/N)	Yes			
Functioning (Y/N)	Yes			
Deck Underside		7	7	
Stains (Percent Area)	0			
Span Alignment Problems				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			
Superstructure General Rating		**3**	**4**	

Substructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
Abutments				
Bearing Seats/Caps		7	7	
(Type : **CONCRETE**)				
Backwalls/Breastwalls		7	7	
Wingwalls		7	7	
Piles		N	N	
Paint/Coating		6	6	
Abutment Stability		8	8	
Scour/Erosion		7	3	Gully next to NW - creating void under concrete corner creating void under concrete slope protection.
Piers/Bents				
(Type : **PIER-COLUMN**)				Narrow crack down vertical face (N-end) extending 75mm.-photo
Bearing Seats/Caps		4	4	
(Type : **CONCRETE**)				
(Total Number of Bearing Piles : **9**)				
Pier Shaft/Piles		7	7	
Bracing/Struts/Sheathing		X	X	
Nose Plate		X	X	
Paint/Coating		6	6	
(Colour Description :)				
(Colour Code :)				
Pier Stability		7	7	
Scour		X	X	

Substructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
Debris (Y/N)	No			
Substructure General Rating		**4**	**4**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Grade Separation				
Road Alignment		7	8	
Traffic Safety Features		7	7	
Type	Guradrail & Concrete Median			
Slope Protection		4	3	Settled with void near top of slope protection @ both sides. Gulley next to concrete @ NW corner creating void under concrete.
(Type : **CONCRETE; CONCRETE**)				
Bank Stability		6	6	
Drainage		7	7	
Grade Separation General Rating		**4**	**3**	

Maintenance Recommendations

Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
REPAIR/REPLACE BRIDGE RAIL						
GALVANIZE/PAINT BRIDGE RAIL						
SEAL CURBS	2011	Patch and seal.				
PATCH DECK						
SEAL DECK						
OVERLAY DECK						
REPAIR/REPLACE DECK JOINTS	2012	Flood joint @ SE to determine leakage				
RESET/ PAINT BEARINGS						
WASHING						
SHOTCRETE REPAIRS						
REPAIR ABUTMENT SCOUR/EROSION	2012	Seal gap where concrete slope protection settled / separated. Add fill @ NW				
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION						
OTHER ACTION	2012	Repair vertical cracks at ends of girder.				
OTHER ACTION	2012	Seal gap & fill void along approach curb if not done				
OTHER ACTION	2012	Install missing approach rail splice bolts (8) @ SE, (14) @ NW				
OTHER ACTION	2012	Repair GR 2 post, 3-section flexbeam				
OTHER ACTION	2012	Repair or remove wire box under girders @ NW				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**38.9/44.4**	**Sufficiency Rating (Last/Now) (%)**	**54.2/51.3**	Est. Repl. Yr	2044	Maint. Reqd. (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	Arnold Assenheimer	Previous Assistant's Name	Wade Nanninga
Next Inspection Date	16-Aug-2013	Previous Inspection Date	09-Mar-2010
Inspection Cycle (Default) (months)	21		
Comment			