

Bridge Inspection									
Bridge File Number	75217 S-1 Bridge				Form Type	TH SG			
Year Built/Year Supstr	1965/1965				Lot No.	2			
Bridge or Town Name	Grant MacEwan Bridge, Ft. McMurray				Inspector Name	Arnold Assenheimer			
Located Over	ATHABASCA RIVER, 8.11, WATERCRS-ST				Inspector Class	BR CLS A			
Located On	63:11 L1 13.205				Assistant Name	Wade Nanninga			
Water Body Cl./Year					Assistant Class	BR CLS B			
Navigabil. Cl./Year					Inspection Date	09-Mar-2010			
Legal Land Location	SE SEC 20 TWP 89 RGE 9 W4M				Data Entry By	Theresa Lacusta			
Longitude, Latitude	-111:23:40, 56:43:51				Data Entry Date	12-Apr-2010			
Road Authority	Alberta Transportation (AIT)				Reviewer Name	Stew Hagan			
Contract Main. Area	CMA07				Review Date	05-Apr-2010			
Clear Roadway/Skew	8.2 /				Dept. Reviewer Name	Brent Herrick			
AADT/Year	53,290 / 2008 (A)				Dept. Review Date	15-Apr-2010			
Road Classification	RFD-412.4-120				Follow-Up By				
Detour Length (km)	1								
Allowable Load (t):	Single		Semi		Train				----> 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	NB	On Bridge (m)		In Advance (Y/N)		Lane	SB	On Bridge (m) 5.8	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)		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	Icy deck 100m in advance.										

Utilities (Located at)										
Utility Attachments										
Telephone	Under deck.				Gas					
Power	Both sides of top chord.				Municipal		14 conduit & 1 pipe deck U/S.			
Others	Lamp standards on verticals.				Problem (Y/N)		No			
Remarks	Conduit attached to outside of East railing, full length.									

Approach Road									
				Last	Now	Explanation of Condition			
Horizontal Alignment				5	5	Curve @ both ends.			
Vertical Alignment				7	7				
Roadway Width (m)	23.200								
Approach Bump				6	6				
Guardrail (Y/N)	Yes								
Guardrail				6	6	99.0m of concrete parapet @ NW approach. 66.0m of guardrail @ NE, 99.0m @ SE & SW corners. Insufficient posts/spacing.			
Length (m)	66.000								
Current Standard (Y/N)	No								
Termination Type	Turned Down								
Drainage				6	6				

Approach Road				
		Last	Now	Explanation of Condition
Approach Road General Rating		5	5	
Superstructure				
Bridge Component		Last	Now	Explanation of Condition
(Primary Span : TH, 9 Spans, Lengths(m): 30.5-30.5-30.5-45.7-61-61-76-76-61, A-Ident Number: A0495-02;A0495-03)				
Special Features				
Special Feature			X	Span 4 to 9 TH. Viewed from banks with binoculars. Viewed deck and truss from adjacent bridge & by driving across.
(Type :)				
Special Feature			X	
(Type :)				
Wearing Surface/Deck Top Detail Ratings				
	N (%)	1 (%)	2 (%)	3 (%)
Last	100			
Now	100.0	0.0	0.0	0.0
Wearing Surface/Deck Top		N	N	(Various delams - ISL preparing assessment report (in 2001). 2003/03/13) Numerous previous patches. Viewed wearing surface while driving, would approximate a "4" rating. Widespread patching with some patches deteriorating.-17-Jul-2008
(Material Type : CONCRETE)				
(Plank Thickness(mm) : 50)				
(Plank Width(mm) :)				
Deck Rideability		5	5	
Deck Joints		4	4	(East abutment 130mm gap. Pier #2 30mm gap. Hanger joint 215mm gap. Hinge joint 30mm gap. (Also see secondary span. 09/Dec/04) Unable to get measurement due to heavy traffic volumn. Joints are leaking. Plumbing full of dirt. Water leaking past. 5 abut fingers-25mm higher on approach side.-photo
Temperature (deg. C)		0		
(Expansion Type :)				
(Fixed Type :)				
Gap Size (mm)		Gap Location		
Curbs/Wheel Guards		N	N	
(Curb Type : Standard)				
(Type : CONCRETE)				
(Curb Height(mm) :)				
(Width(mm) :)				
Bridge Rail		5	5	Loss of anchorage at base - photo. (Missing anchor bolts at numerous posts. 2003/03/13) Retrofit continuous box tube attached to vertical slat panels. Too much traffic to inspect, drove across deck, no evident problems.
(Type : GALVANIZED STEEL BRIDGE TUBE)				
Bridge Rail Posts/Blocking		5	4	
(Type : POST STEEL;POST STEEL)				
Bridge Rail/Posts Coating		5	5	
(Type : PAINT)				
Sidewalk		X	X	

Superstructure								
Bridge Component		Last		Now		Explanation of Condition		
(Primary Span : TH, 9 Spans, Lengths(m): 30.5-30.5-30.5-45.7-61-61-76-76-61, A-Ident Number: A0495-02;A0495-03)								
Wide Load Damage (Y/N)	No				Minor bend in 5 top cross bracing.			
High Load Damage (Y/N)	Yes				(Top bracing vibrates under traffic. 2003/03/13) U13L14S minor bend, M64L37N minor dent. (U7L7S & U7L7N not long enough, missing bolt at connection. 2003/03/13) Missing bolts at various connections, not critical. Minor distortions at various locations. (U115-U11) Bottom chord filled with dirt and debris. Not accessible.			
Top Chord			7	7				
Batter Posts			7	7				
Sway Bracings			5	5				
Diagonals			4	4				
Verticals			4	4				
Portals			6	6				
Connections			4	4				
Floor Beams			6	6				
Bottom Chord			4	4				
(No. of Stringers : 0)								
Stringer Detail Ratings								
	N (count)	1 (count)	2 (count)	3 (count)				
Last								
Now								
Stringers			N	N				
(Type : STEEL)								
(Width(mm) :)								
(Depth(mm) :)								
(Spacing(mm) :)								
Paint Condition			4	4				
(Colour Description :)								
(Colour Code :)								
Touchup Required (Y/N)	No							
Bearings			5	5				
Temperature (deg. C)	0							
(Expansion Type : ROCKER BEARING)								
(Fixed Type : SLIDING PLATE;PINNED BEARING)								
Functioning (Y/N)	Yes							
Sub Deck/Deck Underside			5	5				
(Material Type : CONCRETE)								
(Plank Thickness(mm) : 150)								
(Plank Width(mm) :)								
Defects (Percent Area)								
Span Alignment Problems								
Vertical (Y/N)	No							
Horizontal (Y/N)	No							
Superstructure General Rating			4	4				
G.R. carried forward.								
Superstructure								
Bridge Component		Last		Now		Explanation of Condition		
(Secondary Span : RG)								
Special Features								
Special Feature				X				
(Type :)								
Special Feature				X				
(Type :)								

Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Secondary Span : RG)					
Wearing Surface/Deck Top Detail Ratings					
	N (%)	1 (%)	2 (%)	3 (%)	Viewed from end of bridge.
Last	50				
Now	50.0	0.0	0.0	0.0	
Wearing Surface (Material Type : CONCRETE) (Thickness(mm) : 50)			5	5	Span 7, 8 & 9. 2 girder RG. Various delams previously patched. (ISL preparing assessment report. 2003/03/13)
Deck Top			N	N	
Deck Rideability			5	5	
Deck Joints			4	4	Abutment joint plumbing rusting & perforated.-filled with dirt. (09/Dec/04) }Unable to get measurement due to heavy traffic volume. (Compression seals failed. 2003/03/13)
Temperature (deg. C)		0			
(Expansion Type :)					
(Fixed Type :)					
Gap Size (mm)		Gap Location			
45			Pier #6		
100			West abutment		
Deck Drainage			5	5	Minor gravel accumulation along gutters.
Drains Clogged (Y/N)		No			
Curbs/Median			4	4	Curb fascia spalling at North end.
(Curb Type : Standard)					
Scaling (Percent Area)		0			
Bridge Rail			5	5	4 panels from North abutment East side accident damage but functioning. Retrofit continuous box tube attached to vertical slat panels. (Post anchor compromised due to deteriorated curb. 2003/03/13)
(Type : GALVANIZED STEEL BRIDGE TUBE)					
Bridge Rail Posts			5	5	
(Type : GALVANIZED POST STEEL;GALVANIZED POST STEEL)					
Bridge Rail/Posts Coating			5	5	
(Type : GALVANIZED)					
Sidewalk			X	X	
Girder/Beam					
Cover Plate			7	7	Viewed from banks with binoculars. Lower flange corroding.
Flange			7	6	
Web			7	7	
Stiffeners			7	7	
Splice			7	7	
Weld			N	N	
Diaphragms/Cross Frame			7	7	
Paint Condition			4	4	Lower flanges corroding on outside and at joints.
(Colour Description :)					
(Colour Code :)					
Touchup Required (Y/N)		No			

Superstructure						
Bridge Component		Last	Now	Explanation of Condition		
(Secondary Span : RG)						
Bearings		5	5			
Temperature (deg. C)	0					
(Expansion Type : ROCKER BEARING)						
(Fixed Type : SLIDING PLATE; PINNED BEARING)						
Coating Adequate (Y/N)	No					
Functioning (Y/N)	Yes					
Deck Underside		5	5	Transverse cracks with efflorescence.		
Stains (Percent Area)	5					
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) :)						
(Extended Backwall Piles Spacing(mm) :)						
(Total Number of Caps/Corbels : :)				Massive.		
Bearing Seats/Caps/Corbels Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last						
Now						
Bearing Seats/Caps/Corbels		5	5			
(Type : CONCRETE)						
(Depth(mm) :)						
(Width(mm) :)						
Backwalls/Breastwalls		6	6			
Greatest Height (m)	1.40					
Wingwalls		7	7			
(Total Number of Bearing Piles : 0:0)						
Piles Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last	100					
Now	100	0	0	0		
Piles		N	N			
Paint/Coating		6	6			
Abutment Stability		7	7			
Scour/Erosion		5	5			
Piers/Bents						
(Type : PIER-SOLID)						
(Total Number of Caps/Corbels : : : : : :)						
Bearing Seats/Caps/Corbels Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)	Massive.	
Last						
Now					Not measured, too high.	
Bearing Seats/Caps/Corbels		6	6			
(Type : CONCRETE)						
Top coat peeling.						

Substructure						
Bridge Component				Last	Now	Explanation of Condition
(Total Number of Bearing Piles : 0:0:0:0:0:0:0)						
Piles Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last	100					
Now						
Pier Shaft/Piles				6	6	
Greatest Height (m)						
Bracing/Struts/Sheathing				X	X	
Nose Plate				6	6	
Paint/Coating				4	5	Superficial rust.
(Colour Description :)						
(Colour Code :)						
Pier Stability				7	7	
Scour				N	N	
Debris (Y/N)		No				
Substructure General Rating				5	5	
Structure Usage						
				Last	Now	Explanation of Condition
Channel						
(U/S Direction : W)						
(D/S Direction : E)						
Alignment				7	7	Pedestrian path under North span.
Bank Stability				7	7	
HWM (m below Top of Curb)						HWM not visible.
Drift (Y/N)		No				
Slope Protection				6	6	
(Type : RIP RAP)						
Guidebank/Spurs				X	X	
Adequacy of Opening				9	9	
(Fish Compensation Measure 1 : NONE)						
(Fish Compensation Measure 2 : NONE)						
Channel General Rating				7	6	

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							
REPAINT SUPERSTRUCTURE							
STRAIGHTEN/REPLACE MEMBERS							
WASHING							
SHOTCRETE REPAIRS							
REPAIR ABUTMENT SCOUR/EROSION							
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION							
OTHER ACTION	2010	Clean drains.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	50.0/50.0	Sufficiency Rating (Last/Now) (%)	39.3/37.7	Est. Repl. Yr	2015	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Bridge programmed to be replaced. New bridge currently under construction.		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	Jason Saly		Previous Assistant's Name				
Next Inspection Date	09-Dec-2011		Previous Inspection Date	17-Jul-2008			
Inspection Cycle (Default) (months)	21						
Comment							