Bridge Inspection

Bridge File Number	80757 -1 Bridge	Form Type	SG
Year Built/Year Supstr	1985/1985	Lot No.	2
		Inspector Name	Brian Pientsch
Bridge or Town Name	GRANDE CACHE	Inspector Class	BR CLS A
Located Over	40:36 C1 15.799	Assistant Name	Russel Vanderschaaf
Located On	LOCAL ROAD	Assistant Class	BR CLS B
Water Body Cl./Year		Inspection Date	23-Aug-2012
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SE SEC 15 TWP 58 RGE 8 W6M	Data Entry Date	07-Nov-2012
Longitude, Latitude	-119:05:53, 54:00:41	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	22-Oct-2012
Contract Main. Area	CMA05	Dept. Reviewer Name	David Morrison
Clear Roadway/Skew	6.1 / 42 deg. (RHF)	Dept. Review Date	15-Jan-2013
AADT/Year	330 / 2010 (E)	Follow-Up By	
Road Classification			
Detour Length (km)	999		

Allowable Load (t):	Single		Semi		Train		---> On Critical Spans --->Critical Member
Design Loading:							---> Primary Span

Posting Information

Required Vert. Clearance Posting (m)				UNDER: 40 C1 6.2m							
Posted Vertical Clearance (Y/N)				Yes							
Posted:	Lane	NB	On Bridge (m)	5.9	In Advance (Y/N)	Yes	Lane	SB	On Bridge (m)	5.9	In Advance (Y/N)	Yes
Remarks	SB & NB in advance says 6.2m, measured 6.4m-19-Nov-2010										

Required Load Posting (t)			Single		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)	No	In Advance (Y/N)	No	At Bridge (Y/N)	No
Remarks	Not req'd.							

Hazard Marker At Bridge (Y/N)	No
Remarks	
Other Sign Types	Max 50 - NB, Info

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks	Conduit detached @ SW curb/abut - can't see if there are utilities in the ducts.		

Approach Road

		Last	Now	Explanation of Condition
Horizontal Alignment		5	6	Sharp curves at both ends of bridge. Posted for max 50kph and adequate for private use. Bridge and approach road on grade.
Vertical Alignment		6	6	
Roadway Width (m)	8.000			Approach slabs settled.Moderate rutting/washboard at both approaches.
Approach Bump		4	6	
Guardrail (Y/N)	Yes			Collision damage SW rail, 2 bent rail sections.
Guardrail		4	3	
Length (m)	23.000			
Current Standard (Y/N)	No			
Termination Type	TURNED DOWN			

Approach Road

	Last	Now	Explanation of Condition
Drainage	4	4	Void under NE abut 0.3D at SW 0.2m D
Approach Road General Rating	**5**	**6**	

Superstructure

Bridge Component	Last	Now	Explanation of Condition
(Primary Span : **WG, 2 Spans, Lengths(m): 40-30, A-Ident Number: A1013-01**)			
Special Features			
Special Feature		X	
(Type :)			
Special Feature		X	
(Type :)			
Wearing Surface/Deck Top Detail Ratings			
	N (%) / 1 (%) / 2 (%) / 3 (%)		Coal/gravel/mud covered.
Last	50 / 0 / 0 / 0		
Now	100.0 / 0.0 / 0.0 / 0.0		
Wearing Surface	5	N	Random tranverse cracks narrow width.25-May-2007 Mud and coal covered.
(Material Type : **ACP**)			
(Thickness(mm) : **50**)			
Deck Top	N	N	
Deck Rideability	7	6	
Deck Joints	4	7	Measurements approx due to mud and coal buildup in joints.
Temperature (deg. C) 20			
(Expansion Type : **ARMOURED GLAND (WABO UNDER FINGER OR SLIDING PLATES)**)			
(Fixed Type : **GLAND (WABO-MAUER, TRANSFLEX, ETC)**)			
Gap Size (mm) / Gap Location			
110 / W. abut Finger plates			
120 / E. abut Armoured gland			
Deck Drainage	5	6	No deck drains.
Drains Clogged (Y/N) No			
Curbs/Median	5	4	Exterior fascia broken @ NE corner. NE cover plate bent.-photo
(Curb Type : **Standard**)			
Scaling (Percent Area) 0			
Bridge Rail	4	N	Covered in mud and soot.
(Type : **GALVANIZED STEEL BRIDGE TUBE**)			
Bridge Rail Posts	4	N	
(Type : **GALVANIZED POST STEEL;GALVANIZED POST STEEL**)			
Bridge Rail/Posts Coating	6	N	
(Type : **GALVANIZED**)			
Sidewalk	X	X	

Superstructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
(Primary Span : **WG, 2 Spans, Lengths(m): 40-30, A-Ident Number: A1013-01**)				
Girder/Beam				
Cover Plate		X	X	
Flange		8	8	
Web		8	8	
Stiffeners		8	8	
Splice		8	8	
Weld		8	8	
Diaphragms/Cross Frame		8	8	
Paint Condition		8	8	
(Colour Description : **RED**)				
(Colour Code : **21310**)				
Touchup Required (Y/N)	No			
Bearings		4	4	Anchor bolts on both abutments are out of plumb 5cm. grout pads beginning to crack. Some anchor bolts on the North side are leaning.
Temperature (deg. C)	15			
(Expansion Type : **REINFORCED NEOPRENE BEARING WITH TEFLON AND STAINLESS STEEL**)				
(Fixed Type : **REINFORCED PAD BEARING**)				
Coating Adequate (Y/N)	Yes			
Functioning (Y/N)	Yes			
Deck Underside		5	5	Transverse narrow cracks with leaching every est 1.5m. North span.
Stains (Percent Area)	1			
Span Alignment Problems				
Vertical (Y/N)	No			Bridge moved West 20mm at S. abut.-photo
Horizontal (Y/N)	Yes			
Superstructure General Rating		**4**	**4**	

Substructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
Abutments				
Bearing Seats/Caps		7	7	
(Type : **CONCRETE**)				
Backwalls/Breastwalls		7	7	
Wingwalls		5	5	Crack in SE wingwall 0.8m long.-Typical cracking all wingwalls.
Piles		N	N	Buried
Paint/Coating		5	6	
Abutment Stability		4	4	Concrete slope protection has settled 240mm on S. abut. and 200mm on N. abut.
Scour/Erosion		3	X	
Piers/Bents				
(Type : **PIER-COLUMN**)				5 columns diagonal cracks @ NW corner.
Bearing Seats/Caps		6	7	
(Type : **CONCRETE**)				
(Total Number of Bearing Piles : **5**)				
Pier Shaft/Piles		7	7	
Bracing/Struts/Sheathing		5	6	
Nose Plate		X	X	

Substructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
Paint/Coating		5	5	Paint 30% peeling on pier cap/ spot corrosion.
(Colour Description :)				
(Colour Code :)				
Pier Stability		7	7	
Scour		X	X	
Debris (Y/N)	No			
Substructure General Rating		**4**	**4**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Grade Separation				
Road Alignment		6	6	Horizontal curves on a est 5% vertical grade.
Traffic Safety Features		6	6	N. shoulder only
Type	GUARDRAIL			
Slope Protection		4	5	Settled 240 mm on south abut. and 200 on north abut. South moved out 100mm.
(Type : **CONCRETE; CONCRETE**)				
Bank Stability		6	6	
Drainage		5	5	
Grade Separation General Rating		**6**	**5**	

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	2013	Corner plate @ NE.				
RESET/ PAINT BEARINGS						
REPAINT SUPERSTRUCTURE						
STRAIGHTEN/REPLACE MEMBERS						
WASHING						
SHOTCRETE REPAIRS						
REPAIR ABUTMENT SCOUR/EROSION						
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION						
OTHER ACTION						
OTHER ACTION	2013	Repair voids at abutments.				
OTHER ACTION	2012	Repair guardrail.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**44.4/44.4**	**Sufficiency Rating (Last/Now) (%)**	**40.6/39.1**	Est. Repl. Yr	2033	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection	Monitor bearings and concrete slope protection movement.	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	Dave Lam	Previous Assistant's Name	
Next Inspection Date	23-May-2014	Previous Inspection Date	25-Apr-2012
Inspection Cycle (Default) (months)	21		
Comment			