Bridge Inspection

Bridge File Number	76649 W-1 Bridge	Form Type	SG
Year Built/Year Supstr	1969/1969	Lot No.	2
		Inspector Name	Shane Hall
Bridge or Town Name	CLOVERBAR 07	Inspector Class	BR CLS A
Located Over	RAMP 88-1 A	Assistant Name	
Located On	RAMP 88-1 J	Assistant Class	
Water Body Cl./Year		Inspection Date	24-Sep-2010
Navigabil. Cl./Year		Data Entry By	Janie Assenheimer
Legal Land Location	SE SEC 16 TWP 53 RGE 23 W4M	Data Entry Date	15-Oct-2010
Longitude, Latitude	-113:19:32, 53:34:15	Reviewer Name	Arnold Assenheimer
Road Authority	Alberta Transportation (AIT)	Review Date	29-Sep-2010
Contract Main. Area	CMA09	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	7.3 / 51 deg. (RHF)	Dept. Review Date	26-Oct-2010
AADT/Year	11,000 / 2010 (E)	Follow-Up By	
Road Classification	RLU-208-100		
Detour Length (km)	3		

Allowable Load (t):	Single		Semi		Train		---> On Critical Spans --->Critical Member
Design Loading:	HS20					---> Primary Span

Posting Information

Required Vert. Clearance Posting (m)			UNDER: 88-1-A 5.2m								
Posted Vertical Clearance (Y/N)			Yes								
Posted:	Lane	NB	On Bridge (m)		In Advance (Y/N)		Lane	SB	On Bridge (m)	5.2	In Advance (Y/N)	Yes
Remarks	Only S.B. traffic.										

Required Load Posting (t)			Single		Semi		Truck Train	
Posted Loading (t)			Single		Semi		Truck Train	
Posted:	Lane	EB	At Junction (Y/N)		In Advance (Y/N)		At Bridge (Y/N)	
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	Route marker.

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power		Municipal	
Others	Light standards in area.	Problem (Y/N)	No
Remarks	Light standard columns rusting at splash zone.		

Approach Road

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Right curve 100m off deck merge lane.
Vertical Alignment		7	7	
Roadway Width (m)	7.300			Approach asphalt numerous large cracks, few pot holes.
Approach Bump		5	5	
Guardrail (Y/N)	Yes			Insufficient posts. Guardrail has separated from parapets SE (photo).
Guardrail		4	4	
Length (m)	45.600			
Current Standard (Y/N)	No			
Termination Type	Turned Down			
Drainage		N	5	
Approach Road General Rating		**6**	**6**	

Superstructure

Bridge Component	Last	Now	Explanation of Condition
(Primary Span : **FR, 3 Spans, Lengths(m): 15.5-29-15.5, A-Ident Number: A0616-01**)			
Special Features			
Special Feature		X	
(Type :)			
Special Feature		X	
(Type :)			
Wearing Surface/Deck Top Detail Ratings			
	N (%) / 1 (%) / 2 (%) / 3 (%)		
Last	75 /	/	/
Now	0.0 / 0.0	/ 0.0	/ 0.0
Wearing Surface	N	4	Approx. 10% of chipseal worn off - majority along bridge centerline.
(Material Type : **CONCRETE - CONVENTIONAL CHIP SEAL COAT**)			
(Thickness(mm) : **50**)			
Deck Top	N	N	
Deck Rideability	6	6	
Deck Joints	N	3	West paving lip breaking up (photo). Gap @ west joint is 20mm @ North centerline 2mm @ south. Drain trough at west abut. rusted/failed (photo).
Temperature (deg. C) 8			
(Expansion Type : **FINGER PLATES**)			
(Fixed Type :)			
Gap Size (mm) / Gap Location			
5 / E. abutment			
20 / W. abutment			
Deck Drainage	N	3	No drains. Drain trough on west abut. failed (photo).
Drains Clogged (Y/N)			
Curbs/Median	N	4	Parging delaminating.
(Curb Type : **Standard**)			
Scaling (Percent Area) 10			
Bridge Rail	7	7	Paint is peeling - 90% failed. Galvanizing is intact under paint.
(Type : **GALVANIZED STEEL BRIDGE TUBE**)			
Bridge Rail Posts	7	7	
(Type : **POST STEEL;POST STEEL**)			
Bridge Rail/Posts Coating	7	7	
(Type : **GALVANIZED**)			
Sidewalk	X	X	
Girder/Beam			
Cover Plate	X	X	(High load damage. Repaired June 2006. South girder epoxy injected. Jan 6, 2009) Several high load scrapes. 12 girders. 4/span.
Flange	6	6	
Web	7	7	
Stiffeners	7	7	
Splice	X	X	
Weld	7	7	
Diaphragms/Cross Frame	7	7	

Superstructure

Bridge Component		Last	Now	Explanation of Condition
(Primary Span : **FR, 3 Spans, Lengths(m): 15.5-29-15.5, A-Ident Number: A0616-01**)				
Paint Condition		4	4	Flanges - some paint peeling showing primer on NW fascia. North fascia west span girder top coat is peeling, primary in good condition.
(Colour Description :)				
(Colour Code :)				
Touchup Required (Y/N)	No			
Bearings		4	4	Bearings almost fully extended @ SE & NW corners. One bearing on east abutment has bent bolts, G3. Pier bearing neoprene bulging. Neoprene under pier columns at base.
Temperature (deg. C)				
(Expansion Type : **SLIDING PLATE**)				
(Fixed Type : **NEOPRENE STRIP BEARING**)				
Coating Adequate (Y/N)	No			
Functioning (Y/N)	No			
Deck Underside		4	4	Old staining around weep tubes. Minor spalling along top flanges of exterior girders. Random narrow to medium tranverse cracks with efflorescence. Numerous rust stains along south side. 300 x 300mm spall @ S1G1 (photo).
Stains (Percent Area)	10			
Span Alignment Problems				
Vertical (Y/N)	No			Skew pressures.
Horizontal (Y/N)	Yes			
Superstructure General Rating		**4**	**3**	

Substructure

Bridge Component		Last	Now	Explanation of Condition
Abutments				
Bearing Seats/Caps		6	6	
(Type : **CONCRETE**)				
Backwalls/Breastwalls		7	7	
Wingwalls		6	6	
Piles		N	N	
Paint/Coating		4	4	Most peeled off.
Abutment Stability		5	5	
Scour/Erosion		X	X	
Piers/Bents				
(Type : **PIER-COLUMN**)				Steel frame bent on concrete pedestals, no cap.
Bearing Seats/Caps		X	X	
(Type : **CONCRETE**)				
(Total Number of Bearing Piles : **4:4**)				
Pier Shaft/Piles		7	7	
Bracing/Struts/Sheathing		X	X	
Nose Plate		X	X	
Paint/Coating		5	5	Green.
(Colour Description :)				
(Colour Code :)				
Pier Stability		7	7	
Scour		X	X	
Debris (Y/N)	No			

Substructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
Substructure General Rating		**5**	**5**	
Structure Usage				
		Last	**Now**	**Explanation of Condition**
Grade Separation				
Road Alignment		5	5	Curve both ends.
Traffic Safety Features		3	6	Guardrail on west side only up to bridge.
Type	Guardrail/Light			
Slope Protection		4	4	Poor patch on east slope with some deterioration.
(Type : **CONCRETE; CONCRETE**)				
Bank Stability		5	5	
Drainage		5	5	
Grade Separation General Rating		**5**	**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	2011	Patch paving lip at West joint.				
SEAL DECK						
OVERLAY DECK						
REPAIR/REPLACE DECK JOINTS	2011	Replace drain trough at west joint.				
RESET/ PAINT BEARINGS						
REPAINT SUPERSTRUCTURE						
STRAIGHTEN/REPLACE MEMBERS						
WASHING						
SHOTCRETE REPAIRS						
REPAIR ABUTMENT SCOUR/EROSION						
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION						
OTHER ACTION	2011	Attach flexbeam to SE parapet.				
OTHER ACTION	2011	Clean debris off of west abut. seat.				
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**50.0/44.4**	**Sufficiency Rating (Last/Now) (%)**	**61.9/47.1**	Est. Repl. Yr	2035	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection	Monitor deck joints. Monitor pier bearing deformation. Monitor spalling of deck underside.	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	24-Jun-2012	Previous Inspection Date	06-Jan-2009		
Inspection Cycle (Default) (months)	21				
Comment					