Bridge Inspection

Bridge File Number	76646 W-2 Bridge	Form Type	PSR
Year Built/Year Supstr	1968/1968	Lot No.	2
		Inspector Name	Wade Nanninga
Bridge or Town Name	CLOVERBAR 04	Inspector Class	BR CLS A
Located Over	25102:02 R1 0.220;25102:02 L1 0.222	Assistant Name	
Located On	16:18 L1 5.715	Assistant Class	
Water Body Cl./Year		Inspection Date	21-Aug-2012
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SW SEC 13 TWP 53 RGE 23 W4M	Data Entry Date	05-Sep-2012
Longitude, Latitude	-113:16:15, 53:34:13	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	22-Aug-2012
Contract Main. Area	CMA09	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	17.1 /	Dept. Review Date	18-Sep-2012
AADT/Year	47,380 / 2011 (A)	Follow-Up By	
Road Classification	RAD-412.4-120		
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)				UNDER: 25102 L1 5.2m, 25102 R1 5.2m								
Posted Vertical Clearance (Y/N)												
Posted:	Lane	NB	On Bridge (m)		In Advance (Y/N)	Yes	Lane	SB	On Bridge (m)	5.2	In Advance (Y/N)	Yes
Remarks	NB posted on adjacent bridge.											

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 req'd							

Hazard Marker At Bridge (Y/N)	No
Remarks	Not req'd
Other Sign Types	Info

Utilities (Located at)

Utility Attachments			
Telephone	South r/w	Gas	
Power	7 wires OH East end of bridge. 3 wires 15m North of bridge.	Municipal	
Others	Measuring station NW corner. (Weather)	Problem (Y/N)	No
Remarks			

Approach Road

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	Off ramp to NW.
Vertical Alignment		8	8	Road splits to 3 lanes - 20.3m on west end of bridge. No guardrail @ west end.
Roadway Width (m)	13.000			Wide crack at cl, 25mm drop from approach to approach slab.
Approach Bump		6	4	
Guardrail (Y/N)	Yes			Missing connection rail nut @ NE.
Guardrail		5	4	
Length (m)	91.000			
Current Standard (Y/N)	Yes			
Termination Type	Crash end			

Approach Road			
	Last	Now	Explanation of Condition
Drainage	8	8	
Approach Road General Rating	**8**	**8**	

Superstructure			
Bridge Component	**Last**	**Now**	**Explanation of Condition**
(Primary Span : **PM, 3 Spans, Lengths(m): 10.7-16.8-10.7, 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				
Wearing Surface	4	4	3mx3m area of chipseal missing in South lane @ E end.-photo
(Material Type : **CONCRETE - CONVENTIONAL CHIP SEAL COAT**)			No chipseal along curbs.
(Thickness(mm) : **50**)			
Lateral Connection Problem (Y/N) : No			
Deck Top	N	N	
Deck Rideability	8	8	
Deck Joints	2	4	Chipsealed over piers.
Temperature (deg. C) : 30			Abutments have 10mm gap
(Expansion Type :)			
(Fixed Type : **COMPRESSION SEAL (ACME SEALS)**)			with buffer angles
Gap Size (mm) / Gap Location			
Deck Drainage	7	7	No drains.
Drains Clogged (Y/N) :			
Curbs/Median	6	6	Vertical cracking @ 600mm intervals.
(Curb Type : **Standard**)			
Scaling (Percent Area) : 1			
Bridge Rail	5	5	Minor rail deflection @ NW.
(Type : **GALVANIZED STEEL BRIDGE TUBE**)			
Bridge Rail Posts	7	7	
(Type : **GALVANIZED POST STEEL;GALVANIZED POST STEEL**)			
Bridge Rail/Posts Coating	7	7	
(Type : **GALVANIZED**)			
Sidewalk	X	X	

Superstructure					
Bridge Component				**Last**	**Now**	**Explanation of Condition**
(Primary Span : **PM, 3 Spans, Lengths(m): 10.7-16.8-10.7, A-Ident Number:**)						
Girder Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		SP3 G20 & G16 (G20 with corrosion stain) delam crack extending 0.1m from pier.
Last						
Now				1		
Girders				5	3	Very minor honeycombing in S3G20. Rust stain & short crack S2, G15. Underside of girders are water stained between G14/15 & G16/17 @ center span, old stains. Few rust spots. Stain curb girder at North end pier 2. Chipped edge of SP2G9 Stained underside between S2-G16/17 . Wide vertical crack in poured connections over piers on outside fascia.
Cracking (Y/N)	Yes					
Spalling (Percent Area)	0					
(Number Of Girders : **66**)						
Diaphragms/Cross Frame				X	X	
Bearings				7	7	
Temperature (deg. C)	30					
(Expansion Type :)						
(Fixed Type : **REINFORCED NEOPRENE BEARING WITH TEFLON AND STAINLESS STEEL;REINFORCED PAD BEARING;NEOPRENE STRIP BEARING**)						
Coating Adequate (Y/N)	Yes					
Functioning (Y/N)	Yes					
Deck Underside				N	N	
Stains (Percent Area)	2					
Span Alignment Problems						
Vertical (Y/N)	No					
Horizontal (Y/N)	No					
Superstructure General Rating				**5**	**3**	

Substructure					
Bridge Component				**Last**	**Now**	**Explanation of Condition**
Abutments						
Bearing Seats/Caps				6	6	
(Type : **CONCRETE**)						
Backwalls/Breastwalls				X	N	
Wingwalls				6	6	
Piles				N	N	
Paint/Coating				6	6	
Abutment Stability				8	8	
Scour/Erosion				X	4	Gap between backwall and slope protection.
Piers/Bents						
(Type : **PIER-COLUMN**)						
Bearing Seats/Caps				6	6	Several rust spots.
(Type : **CONCRETE**)						
(Total Number of Bearing Piles : **6:6**)						Vertical cracks at base of all pier piles. Pier 1, Pile 3 has wide vert. crack and deteriorating concrete.-photo
Pier Shaft/Piles				4	4	
Bracing/Struts/Sheathing				X	X	
Nose Plate				X	X	

Substructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
Paint/Coating		5	5	Grey
(Colour Description :)				
(Colour Code :)				
Pier Stability		6	6	
Scour		X	X	
Debris (Y/N)	No			
Substructure General Rating		**4**	**4**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Grade Separation				
Road Alignment		8	8	Guardrail on shoulders.
Traffic Safety Features		5	5	
Type	Median / Concrete			
Slope Protection		4	4	Gap between backwall & concrete slope protection East side.
(Type : **CONCRETE; CONCRETE**)				
Bank Stability		5	5	
Drainage		4	4	Water ponds at West curb.-photo Splashes onto pier piles.
Grade Separation General Rating		**4**	**4**	

Maintenance Recommendations						
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
REPAIR/REPLACE BRIDGE RAIL						
GALVANIZE/PAINT BRIDGE RAIL						
SEAL CURBS						
PATCH DECK	2012	Chipseal patch				
SEAL DECK						
OVERLAY DECK						
REPAIR/REPLACE DECK JOINTS						
RESET/ PAINT BEARINGS						
WASHING						
SHOTCRETE REPAIRS						
REPAIR ABUTMENT SCOUR/EROSION						
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION						
OTHER ACTION	2012	Improve drainage under bridge.				
OTHER ACTION	2012	Add guardrail nut @ NE.				
OTHER ACTION	2012	Seal crack @ approaches.				
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**50.0/38.9**	**Sufficiency Rating (Last/Now) (%)**	**50.0/43.9**	Est. Repl. Yr	2040	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection	Monitor pier piles. Monitor girder cracks.	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	Shane Hall	Previous Assistant's Name			
Next Inspection Date	21-May-2014	Previous Inspection Date	23-Sep-2010		
Inspection Cycle (Default) (months)	21				
Comment					