Bridge Inspection

Bridge File Number	77303 W-1 Bridge	Form Type	PSR
Year Built/Year Supstr	1980/1980	Lot No.	2
		Inspector Name	Kris Bosters
Bridge or Town Name	ONOWAY	Inspector Class	BR CLS A
Located Over	MUNICIPAL ROAD;CNR	Assistant Name	
Located On	43:22 L1 9.086	Assistant Class	
Water Body Cl./Year		Inspection Date	03-Oct-2011
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SW SEC 34 TWP 54 RGE 2 W5M	Data Entry Date	25-Oct-2011
Longitude, Latitude	-114:13:20, 53:42:10	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	22-Oct-2011
Contract Main. Area	CMA12	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	13.4 / -5 deg. (LHF)	Dept. Review Date	26-Oct-2011
AADT/Year	9,670 / 2010 (A)	Follow-Up By	
Road Classification	RAD-412.4-120		
Detour Length (km)	1		

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: MUNICIPAL ROAD 7.0m							
Posted Vertical Clearance (Y/N)				Yes							
Posted:	Lane	EB	On Bridge (m)		In Advance (Y/N)	Yes	Lane	WB	On Bridge (m)	7.0	In Advance (Y/N)	No
Remarks	EB on SB bridge.										

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)		In Advance (Y/N)		At Bridge (Y/N)	
Remarks	Not required.							

Hazard Marker At Bridge (Y/N)	No
Remarks	Not required.
Other Sign Types	Information.

Utilities (Located at)

Utility Attachments			
Telephone	West r/w.	Gas	100m north crossing road.
Power	6 OH lines crossing road ~100m South of bridge.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Access road South of bridge.
Vertical Alignment		7	7	
Roadway Width (m)	12.400			ACP and chipseal is delaminated/peeling at abutments.
Approach Bump		5	5	
Guardrail (Y/N)	Yes			Measured NE (shortest), no guardrail @ NW corner. Insufficient posts/spacing. Bulb end @ North. Missing BR to GR connection bolts 2 @ SW 1 @ NE.-photo
Guardrail		N	4	
Length (m)	40.600			
Current Standard (Y/N)	No			
Termination Type	Turned Down			
Drainage		6	6	
Approach Road General Rating		**7**	**7**	

Superstructure

Bridge Component		Last	Now	Explanation of Condition
(Primary Span : **RM, 4 Spans, Lengths(m): 14-18-18-14, A-Ident Number:**)				
Special Features				
Special Feature			X	
(Type :)				
Special Feature			X	
(Type :)				
Wearing Surface/Deck Top Detail Ratings				
	N (%)	1 (%)	2 (%)	3 (%)
Last	50			
Now				
Wearing Surface		5	5	Chipseal on 50mm high density cover. Seal coat peeling off the deck, 2%. 500mm wide strip worn off along W curb.
(Material Type : **CONCRETE - CONVENTIONAL CHIP SEAL COAT**)				
(Thickness(mm) : **50**)				
Lateral Connection Problem (Y/N)	No			
Deck Top		N	N	
Deck Rideability		6	6	
Deck Joints		5	5	(2006 Level 2 deck inspection indicated 50mm tear in South abutment joint.10-Mar-2008)
Temperature (deg. C)	4			
(Expansion Type : **GLAND (WABO-MAUER, TRANSFLEX, ETC)**)				
(Fixed Type :)				
Gap Size (mm)	Gap Location			
78	North abutment - A2 - exp			
90	South abutment - A1 - exp			
Deck Drainage		6	6	On a crest curve. No deck drains.
Drains Clogged (Y/N)	No			
Curbs/Median		N	5	Plow scrapes, rebar spalls on rebar with insufficent cover on curb face. Poor patch on west curb middle span 2. Light gravel accumulation along the tops of the curbs.
(Curb Type : **Standard**)				
Scaling (Percent Area)	3			
Bridge Rail		7	7	3 bolts with insufficient threads along West rail.
(Type : **GALVANIZED STEEL BRIDGE TUBE**)				
Bridge Rail Posts		5	5	Galvanizing scraped at east side. Galvanizing peeling along tops of rail.
(Type : **GALVANIZED POST STEEL;GALVANIZED POST STEEL**)				
Bridge Rail/Posts Coating		7	5	
(Type : **GALVANIZED**)				
Sidewalk		X	X	
Girder Detail Ratings				
	N (count)	1 (count)	2 (count)	3 (count)
Last				
Now				
Girders		6	5	G7S1 and G6S4, & G12S4 have hairline longitudinal cracks along bottom of girders. Span 3 stained from train exhaust.
Cracking (Y/N)	Yes			
Spalling (Percent Area)	0			
(Number Of Girders : **12**)				

Superstructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
(Primary Span : **RM, 4 Spans, Lengths(m): 14-18-18-14, A-Ident Number:**)				
Diaphragms/Cross Frame		X	X	
Bearings		7	7	
Temperature (deg. C)	4			
(Expansion Type : **REINFORCED PAD BEARING**)				
(Fixed Type : **REINFORCED PAD BEARING**)				
Coating Adequate (Y/N)	Yes			
Functioning (Y/N)	Yes			
Deck Underside		N	N	
Stains (Percent Area)	1			
Span Alignment Problems				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			
Superstructure General Rating		**6**	**5**	

Substructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
Abutments				
Bearing Seats/Caps		7	7	
(Type : **CONCRETE**)				
Backwalls/Breastwalls		N	N	
Wingwalls		7	7	
Piles		N	N	
Paint/Coating		5	5	
Abutment Stability		8	8	
Scour/Erosion		7	7	
Piers/Bents				
(Type : **PIER-COLUMN**)				4 columns/pier. Massive concrete base.
Bearing Seats/Caps		6	6	
(Type : **CONCRETE**)				
(Total Number of Bearing Piles : **0:0:0**)				Spall on P2 @ SE corne .
Pier Shaft/Piles		5	5	
Bracing/Struts/Sheathing		X	X	
Nose Plate		X	X	
Paint/Coating		6	6	Heavily graffitied. Pigmented sealer. Grey.
(Colour Description :)				
(Colour Code :)				
Pier Stability		7	7	
Scour		7	7	
Debris (Y/N)	No			
Substructure General Rating		**5**	**5**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Grade Separation				
Road Alignment		5	5	90 degree bend to East & West.
Traffic Safety Features		6	6	Minor creasing.
Type	Guardrail			
Slope Protection		5	5	Bulging slope protection.
(Type : **CONCRETE; CONCRETE**)				
Bank Stability		6	6	
Drainage		6	6	
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						
SEAL CURBS						
PATCH DECK						
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	2011	Replace missing GR to BR bolts.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**61.1/55.6**	**Sufficiency Rating (Last/Now) (%)**	**60.1/57.4**	Est. Repl. Yr	2044	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection	Monitor concrete spall @ SE corner @ P2.	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	Shane Hall
Next Inspection Date	03-Jul-2013	Previous Inspection Date	14-Dec-2009
Inspection Cycle (Default) (months)	21		
Comment			