Bridge Inspection

Bridge File Number	85012 S-2 Bridge	Form Type	PSR
Year Built/Year Supstr	2005/2005	Lot No.	3
		Inspector Name	Wade Nanninga
Bridge or Town Name	ANTHONY HENDAY DRIVE	Inspector Class	BR CLS A
Located Over	WEDGEWOOD CREEK, 6.99, WATERCRS-ST	Assistant Name	
		Assistant Class	
Located On	216:06 L1 12.718	Inspection Date	26-Jan-2013
Water Body Cl./Year		Data Entry By	Theresa Lacusta
Navigabil. Cl./Year		Data Entry Date	08-Feb-2013
Legal Land Location	SE SEC 8 TWP 52 RGE 25 W4M	Reviewer Name	Eric Carcoux
Longitude, Latitude	-113:38:47, 53:28:13	Review Date	27-Jan-2013
Road Authority	Alberta Transportation (AIT)	Dept. Reviewer Name	Brent Herrick
Contract Main. Area	ANTHONY HENDAY DRIVE	Dept. Review Date	14-Feb-2013
Clear Roadway/Skew	12.9 /	Follow-Up By	
AADT/Year	41,140 / 2011 (A)		
Road Classification	RFD-412.4-110		
Detour Length (km)	1		

Allowable Load (t):	Single	CS1 28	Semi	CS2 49	Train	CS3 62	---> On Critical Spans --->Critical Member
Design Loading:							---> Primary Span

Posting Information

Required Load Posting (t)			Single		Semi		Truck Train	
Posted Loading (t)			Single		Semi		Truck Train	
Posted:	Lane	SB	At Junction (Y/N)	No	In Advance (Y/N)	No	At Bridge (Y/N)	No
Posted:	Lane	NB	At Junction (Y/N)		In Advance (Y/N)		At Bridge (Y/N)	
Remarks	Not required.							

Hazard Marker At Bridge (Y/N)	Yes
Remarks	
Other Sign Types	Information, directional.

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power	240 KV OH lines, 250m north. Lighting.	Municipal	Street lights attached to curb.
Others		Problem (Y/N)	No
Remarks			

Approach Road

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	
Vertical Alignment		9	9	
Roadway Width (m)	13.600			Approach slab ACP crackingwith pothole @ North.
Approach Bump		5	4	
Guardrail (Y/N)	Yes			
Guardrail		5	7	
Length (m)	77.000			
Current Standard (Y/N)	Yes			
Termination Type	Turn down			
Drainage		8	8	
Approach Road General Rating		**8**	**8**	

Superstructure

Bridge Component		Last	Now	Explanation of Condition
(Primary Span : **NU, 3 Spans, Lengths(m): 41.5-52-41.5, A-Ident Number:**)				
Special Features				
Special Feature			X	
(Type :)				
Special Feature			X	
(Type :)				
Wearing Surface/Deck Top Detail Ratings				

	N (%)	1 (%)	2 (%)	3 (%)
Last	0	0	0	0
Now				

Wearing Surface		4	4	100 mm x 100mm pothole in ACP in EB lane (photo). Horizonhtal and transverse cracking throughout.
(Material Type : **ACP**)				
(Thickness(mm) : **80**)				
Lateral Connection Problem (Y/N)	No			
Deck Top		N	N	
Deck Rideability		6	7	
Deck Joints		5	3	Glands at both abutments appear dried out and cracked (photo). No leakage apparent.-May 2011 Gland @ South missing-photo Debris falling onto abutment seat.
Temperature (deg. C)	-10			
(Expansion Type : **GLAND (WABO-MAUER, TRANSFLEX, ETC)**)				
(Fixed Type :)				

Gap Size (mm)	Gap Location
100	Abutment 1 - South
90	Abutment 2 - North

Deck Drainage		8	3	No deck drains. Leaking through South joint onto substructure.
Drains Clogged (Y/N)	No			
Curbs/Median		7	7	Hairline vertical cracking.
(Curb Type : **SINGLE SLOPE CONCRETE BARRIER**)				
Scaling (Percent Area)	0			
Bridge Rail		X	X	
(Type :)				
Bridge Rail Posts		X	X	
(Type :)				
Bridge Rail/Posts Coating		X	X	
(Type :)				
Sidewalk		X	X	
Girder Detail Ratings				

	N (count)	1 (count)	2 (count)	3 (count)
Last	0	0	0	0
Now				

Girders		4	4	Hairline cracks in anchorage zone of girder webs, typical. Continuous.
Cracking (Y/N)	Yes			
Spalling (Percent Area)	0			
(Number Of Girders : **4**)				

Superstructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
(Primary Span : **NU, 3 Spans, Lengths(m): 41.5-52-41.5, A-Ident Number:**)				
Diaphragms/Cross Frame		8	8	Concrete diaphragms at pier & abutments. Steel intermediate diaphragms. Galvanized.
Bearings		8	8	
Temperature (deg. C)	13			
(Expansion Type : **REINFORCED NEOPRENE BEARING WITH TEFLON AND STAINLESS STEEL**)				
(Fixed Type :)				
Coating Adequate (Y/N)	Yes			
Functioning (Y/N)	Yes			
Deck Underside		7	7	Narrow random transverse cracks with efflorescence. Efflorescence @ most barrier const. joints.
Stains (Percent Area)	1			
Span Alignment Problems				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			
Superstructure General Rating		**4**	**4**	

Substructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
Abutments				
Bearing Seats/Caps		9	8	
(Type : **CONCRETE**)				
Backwalls/Breastwalls		8	8	
Wingwalls		4	4	Spall @ NW wingwall - piece of wood embedded in concrete (photo).
Piles		N	N	
Paint/Coating		8	8	
Abutment Stability		9	9	
Scour/Erosion		7	7	
Piers/Bents				
(Type : **PIER-COLUMN**)				1500mm column below each girder line. Concrete base at bottom of columns.
Bearing Seats/Caps		9	9	
(Type : **CONCRETE**)				
(Total Number of Bearing Piles : **4:4**)				
Pier Shaft/Piles		9	9	
Bracing/Struts/Sheathing		9	9	
Nose Plate		X	X	
Paint/Coating		X	X	
(Colour Description :)				
(Colour Code :)				
Pier Stability		8	8	
Scour		7	N	
Debris (Y/N)	No			
Substructure General Rating		**8**	**8**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel				
(U/S Direction : **W**)				Channel meanders through bridge opening.
(D/S Direction : **E**)				
Alignment		6	6	
Bank Stability		5	5	Headslope settling on N side creating void under concrete base @ N pier.
HWM (m below Top of Curb)				No HWM visible.
Drift (Y/N)	No			
Slope Protection		8	7	Rock on upper banks.
(Type : **NATURAL; RIP RAP**)				
Guidebank/Spurs		X	X	
Adequacy of Opening		9	9	
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**6**	**6**	

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	2013	Repair pothole in ACP.				
SEAL DECK						
OVERLAY DECK						
REPAIR/REPLACE DECK JOINTS	2013	Install new gland @ South joint. Install 1 snow plow guard.				
RESET/ PAINT BEARINGS						
WASHING	2013	Particularly @ S abut.				
SHOTCRETE REPAIRS						
REPAIR ABUTMENT SCOUR/EROSION						
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION						
OTHER ACTION	2013	Patch both approaches, seal cracks.				
OTHER ACTION	2013	Consider replacing North gland while there.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**66.7/66.7**	**Sufficiency Rating (Last/Now) (%)**	**59.8/59.8**	Est. Repl. Yr	2080	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection	Monitor girder cracks. Monitor cracks in ACP. Monitor spall in NW wingwall. Replace joint before drainage starts affecting girders/bearings.	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	26-Oct-2014	Previous Inspection Date	04-May-2011		
Inspection Cycle (Default) (months)	21				
Comment					