

Bridge Inspection													
Bridge File Number	85021 ES-4 Bridge					Form Type	PSR						
Year Built/Year Supstr	2006/2006					Lot No.	3						
Bridge or Town Name	ANTHONY HENDAY SB CONNECTOR OVER HWY2:32 SOUTH TRELIS STRUC					Inspector Name	Kris Bosters						
						Inspector Class	BR CLS A						
Located Over	2:32 L1 19.502					Assistant Name							
Located On	RAMP 2423-2 A					Assistant Class							
Water Body Cl./Year						Inspection Date	20-Feb-2013						
Navigabil. Cl./Year						Data Entry By	Lisa Fairhurst						
Legal Land Location	SE SEC 29 TWP 51 RGE 24 W4M					Data Entry Date	11-Mar-2013						
Longitude, Latitude	-113:29:35, 53:25:49					Reviewer Name	Eric Carcoux						
Road Authority	Alberta Transportation (AIT)					Review Date	10-Mar-2013						
Contract Main. Area	ANTHONY HENDAY DRIVE					Dept. Reviewer Name	Brent Herrick						
Clear Roadway/Skew	20.3 /					Dept. Review Date	13-Mar-2013						
AADT/Year						Follow-Up By							
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:	CL800											----> Primary Span	
Posting Information													
Required Vert. Clearance Posting (m)													
Posted Vertical Clearance (Y/N)			Yes										
Posted:	Lane	SB	On Bridge (m)	5.4	In Advance (Y/N)	No	Lane	NB	On Bridge (m)		In Advance (Y/N)		
Remarks	Clearance sign mounted on structure #3.												
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	At Bridge (Y/N)	No			
Posted:	Lane	NB	At Junction (Y/N)		In Advance (Y/N)		At Bridge (Y/N)		At Bridge (Y/N)				
Remarks	Not required.												
Hazard Marker At Bridge (Y/N)	Yes												
Remarks	Installed @ ends of approach railing, 1 at end of concrete barrier NE.												
Other Sign Types	Lane ends.												
Utilities (Located at)													
Utility Attachments													
Telephone						Gas	Ethane marker @ NW.						
Power	Major power over North end, street lights.					Municipal							
Others						Problem (Y/N)	No						
Remarks													
Approach Road													
			Last	Now	Explanation of Condition								
Horizontal Alignment			7	7	On curve, on ramp enters.								
Vertical Alignment			8	8									
Roadway Width (m)			20.300		Wide cracks with ravelling at approaches - photo								
Approach Bump			8	4									
Guardrail (Y/N)			Yes		Tear from grader at NE rail, still functional								
Guardrail			8	5									
Length (m)			62.000										
Current Standard (Y/N)			Yes										
Termination Type			Terminal										
Drainage			4	N	(Erosion gully forming at SW corner upto 400 deep X 3m long.- photo - 26 Apr 2011)								
Approach Road General Rating			7	7									

Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Primary Span : TSS, 1 Spans, Lengths(m): 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 (%)	Snow along gutters
Last					
Now	5.0	0.0	0.0	0.0	
Wearing Surface			4	4	Random longitudinal and transverse wide cracks.-photo
(Material Type : ACP)					
(Thickness(mm) : 90)					
Lateral Connection Problem (Y/N)		No			
Deck Top			N	N	
Deck Rideability			8	8	
Deck Joints			4	4	2 bolts sheared off at curb joint cover plate at SE corner - photo. 4 missing plow deflectors at S joint - photo 2 missing deflectors at N joint Paving lips have light scaling in wheel paths and wide transverse cracks - photo
Temperature (deg. C)		-7			
(Expansion Type : GLAND (WABO-MAUER, TRANSFLEX, ETC))					
(Fixed Type :)					
Gap Size (mm)		Gap Location			
108			North abutment		
112			South abutment		
Deck Drainage			4	4	PVC drain tubes don't extend below deck, staining/scaling underside.-photo Scaling on underside where seepage is coming through curb cold joints - photo
Drains Clogged (Y/N)		No			
Curbs/Median			7	4	Medium vertical shrinkage cracks, typical. Leakage through cold joint cracks is causing scaling on deck underside - photo
(Curb Type : SINGLE SLOPE CONCRETE BARRIER)					
Scaling (Percent Area)		1			
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)	Almost all beams have narrow hairline horizontal crackin. At some beams cracking extends for length of beam. Some rust spotting. Beam 2 at W end likely not from stressing strand.
Last					
Now	0	0	0	0	
Girders			4	4	Narrow cracking at trellis beams vertical faces. Horizontal and vertical shrinkage cracks trellis beam end blocks. Shallow cover exposing rebar end at #14. Overhanging sections have horiz. cracks, W end of trellis 6 has narrow shear cracks
Cracking (Y/N)		Yes			
Spalling (Percent Area)		0			
(Number Of Girders : 31)					

Superstructure				
Bridge Component		Last	Now	Explanation of Condition
(Primary Span : TSS, 1 Spans, Lengths(m): 41.5, A-Ident Number:)				
Diaphragms/Cross Frame		X	X	
Bearings		8	8	Only could see a couple at deck joint locations
Temperature (deg. C)	-7			
(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	Medium crack 0.5m long at NE & SE corner with staining. Light scaling around strain tube & curb joints Narrow transverse crack at cold joint on S end of bridge
Stains (Percent Area)	0			
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		8	6	Narrow crack with efflorescence extending from deck underside at SW
(Type : CONCRETE)				
Backwalls/Breastwalls		8	8	
Wingwalls		6	6	Narrow vertical cracks at all 4 corners
Piles		N	N	
Paint/Coating		7	4	5% peeling, especially on horizontal faces
Abutment Stability		8	8	
Scour/Erosion		5	5	Fill settled at NE/SW corner - 400mm.
Piers/Bents				
(Type :)				Trellis beam supports. Buttress wall. Narrow horiz. & vert. cracks in supports.
Bearing Seats/Caps		8	6	
(Type :)				
(Total Number of Bearing Piles :)				
Pier Shaft/Piles		N	N	
Bracing/Struts/Sheathing		X	X	
Nose Plate		X	X	
Paint/Coating		8	4	Cream. Peeling at a few locations, especially horizontal faces.
(Colour Description :)				
(Colour Code :)				
Pier Stability		8	8	
Scour		4	N	(Pile exposed and bank sloughing at trellis #7. - 26Apr2011) Snow covered
Debris (Y/N)	No			
Substructure General Rating		8	6	

Structure Usage				
		Last	Now	Explanation of Condition
Grade Separation				
Road Alignment		8	8	On curve.
Traffic Safety Features		7	7	
Type	Lighting			
Slope Protection		7	5	2 short retaining walls on NW headslope. Medium vertical cracks
(Type : CONCRETE; CONCRETE)				
Bank Stability		4	4	Pile exposed & fill settled @ 7th trellis beam from South Settled at sixth beam as well. Headslope settled upto 400mm @ NE.
Drainage		5	5	
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	2013	Seal cracks at cold joints					
PATCH DECK	2013	Seal/patch cracks at approaches					
SEAL DECK	2013	Seal deck cracks					
OVERLAY DECK							
REPAIR/REPLACE DECK JOINTS	2013	Add bolts to coverplate, replace missing snow plow deflectors, seal cracks.					
RESET/ PAINT BEARINGS							
WASHING							
SHOTCRETE REPAIRS							
REPAIR ABUTMENT SCOUR/EROSION							
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION							
OTHER ACTION							
OTHER ACTION	2013	Repair erosion at SW corner, is not already done					
OTHER ACTION							
OTHER ACTION	2013	Extend drain/weep tubes.					
Structural Condition Rating (Last/Now) (%)	66.7/55.6	Sufficiency Rating (Last/Now) (%)	62.3/58.5	Est. Repl. Yr	2080	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Monitor horizontal cracks in trellis beams, rust stains at beam 20.		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	Wade Nanninga			
Next Inspection Date	20-Nov-2014		Previous Inspection Date	26-Apr-2011			
Inspection Cycle (Default) (months)	21						
Comment							