Bridge Culvert Inspection

Bridge File Number	74683 -1 Bridge Culvert	Form Type	CUL1
Year Built	1957	Lot No.	4
Bridge or Town Name	CARBON	Inspector Name	Owen Salava
Located Over	TRAIL-ANIMAL, OVER SP	Inspector Class	BR CLS A
Located On	21:14 C1 16.381	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	18-Sep-2012
Legal Land Location	NW SEC 31 TWP 29 RGE 23 W4M	Data Entry By	Marcia Chavez
Longitude, Latitude	-113:14:23, 51:31:50	Data Entry Date	03-Oct-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	CMA20	Review Date	27-Sep-2012
Clear Roadway/Skew	11 /	Dept. Reviewer Name	Andrew Smikles
AADT/Year	2,490 / 2011 (A)	Dept. Review Date	16-Oct-2012
Road Classification	RAU-211.8-110	Follow-Up By	
Detour Length (km)	3		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	1800	1800	BPR	33			RECTANGLE
Special Features								
Special Features Comment								

Posting Information

Required Vert. Clearance Posting (m)												
Posted Vertical Clearance (Y/N)												
Posted:	Lane	NB	On Bridge (m)		In Advance (Y/N)	No	Lane	SB	On Bridge (m)		In Advance (Y/N)	No
Remarks	Not required.											

Utilities (Located at)

Utility Attachments			
Telephone	West ditch.	Gas	
Power	2 wire crosses road 40m North.	Municipal	
Others	Fibre optic E r/w.	Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	Farm ent 20 m North.
Vertical Alignment		6	6	On crest of hill. Limited sight distance. No passing both directions.
Roadway Width (m)	11.000			
Embankment		7	7	Numerous transverse cracks in ACP over & near pipe - sealed.
Sideslope (__:1)	3.0			
(Height of Cover(m) : **1**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		6	6	Isolated medium crack - Minor.
Collar		X	X	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Wingwalls		6	6	Wings are moving away from the barrel to 50 mm (photo). (Some heaving of floor in West apron to 50 mm and 3 mm wide cracks. 22Feb2008).
(Shape :)				
Cutoff Wall		N	N	Covered by dirt, not visible.
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	50			
Scour Protection		6	6	
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
Upstream End General Rating		**6**	**6**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 1800, Rise (mm): 1800, Type: BPR**)				
Barrel Last Accessible Date	18-Sep-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	Midspan
Measured Rise (mm)	1800			
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		6	6	Minor honeycomb at South wall (is leaking in this area. 95/08/23). - not evident this inspection.
Measured Span (mm)	1825			
Measured At Ring No.				
Deflection (mm)	25			
Percent Deflection				
Floor		N	N	Mud covered - avg 100 mm deep.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		X	X	No circumferential seams, just form lines.
Separation (mm)	0			
Longitudinal Seams		X	X	
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 1800, Rise (mm): 1800, Type: BPR**)				
Coating		X	X	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		8	8	Takes some drainage West to East.
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**6**	**6**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		5	5	Cracking - minor.
Collar		X	X	
Wingwalls		7	7	Wings have moved away from barrel to 40 mm.
(Shape :)				
Cutoff Wall		X	N	Apron floor covered by dirt.
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		6	6	
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
Downstream End General Rating		**5**	**5**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Grade Separation				
Road Alignment		6	6	U/S apron cracked and heaved 50 mm. Up to 100mm mud at D/S 1/3.
Roadway Surface		5	5	
(Type :)				
Icing (Y/N)	No			
Traffic Safety Features		X	X	
Type	None			

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Lighting		X	X	
Barrel Leakage (Y/N)	Yes			None at this inspection.
Drainage		6	6	
Structure In Use (Y/N)	Yes			Still in use by farmer on W side.
Grade Separation General Rating		**5**	**6**	

Maintenance Recommendations						
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
SHOTCRETE REPAIRS						
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION						
INSTALL CONCRETE/STEEL LINING						
INSTALL STRUTS						
INSTALL CONCRETE COLLAR/CUTOFF						
REPAIR SEAMS						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**66.7/66.7**	**Sufficiency Rating (Last/Now) (%)**	**68.8/69.5**	Est. Repl. Yr	2030	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection	Monitor leakage & wingwall movement. This pipe handles some drainage.	Department Comments	

Maintenance Reviewed By		Date		Estimated Total	0
Proposed Long-Term Strategy					
On 3-Year Program (Y/N)	N				
Proposed Action	2006.10.24 Revisit site in two years to check for continued usage.				
Previous Inspector's Name	Dave Lam	Previous Assistant's Name			
Next Inspection Date	18-Jun-2014	Previous Inspection Date	10-Nov-2010		
Inspection Cycle (Default) (months)	21				
Comment					