Bridge Culvert Inspection

Bridge File Number	71539 -1 Bridge Culvert	Form Type	CUL1
Year Built	1977	Lot No.	4
Bridge or Town Name	JEFFERSON	Inspector Name	Jason Rusu
Located Over	2ND ORDER TRIBUTARY TO ROLPH CREEK, 2.12.20.10.4.1, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	820:02 C1 5.543	Assistant Class	
Water Body Cl./Year		Inspection Date	12-Jun-2010
Navigabil. Cl./Year		Data Entry By	Erin Roberts
Legal Land Location	NW SEC 31 TWP 1 RGE 23 W4M	Data Entry Date	18-Aug-2010
Longitude, Latitude	-113:04:39, 49:04:45	Reviewer Name	Garry Roberts
Road Authority	Alberta Transportation (AIT)	Review Date	18-Jul-2010
Contract Main. Area	CMA25	Dept. Reviewer Name	Lorenz Bohnert
Clear Roadway/Skew	10 /	Dept. Review Date	23-Aug-2010
AADT/Year	70 / 2009 (A)	Follow-Up By	
Road Classification	RLU-209G-90		
Detour Length (km)	10		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1800	MP	25		3.5,3.5,3.5	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	W ditch	Gas	
Power	E side 1 wire N 2 wires S	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		9	9	Rises to the north Dip south.
Vertical Alignment		7	7	
Roadway Width (m)	9.400			
Embankment		8	8	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **1.4**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		E		U/S east.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		7	6	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		N	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		N	7	
Beavers (Y/N)	No			
Upstream End General Rating		**7**	**6**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1800, Type: MP**)				
Barrel Last Accessible Date	12-Jun-2010			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		5	5	At midspan
Measured Rise (mm)	1694			
Measured At Ring No.				
Sag (mm)	106			
Percent Sag	6			
Sidewall		4	4	At midspan
Measured Span (mm)	1935			
Measured At Ring No.				
Deflection (mm)	135			
Percent Deflection				
Floor		N	6	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	6	No dirt infiltration - top = 10 mm, bottom = 50.
Separation (mm)	50			
Longitudinal Seams		X	X	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	0			
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				
Coating		6	6	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1800, Type: MP**)				
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		8	8	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**4**	**4**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		W		West invert d/s.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)	30			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		N	4	Missing rip rap to South of bevel
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **100**)				
Scour/Erosion		N	4	Scour to South and D/S (3m x 5m x 1m deep)
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**4**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		8	8	(Water backs up in the spring-told by farmer) 1-mar-2007 D/S minor.
Bank Stability		8	7	
HWM (m below Top of Culvert)				No visible HWM
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**8**	**8**	

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) (%)	**44.4/44.4**	**Sufficiency Rating (Last/Now) (%)**	**66.9/63.1**	Est. Repl. Yr	2033	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection		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	Tim Davies	Previous Assistant's Name			
Next Inspection Date	12-Sep-2013	Previous Inspection Date	01-Mar-2007		
Inspection Cycle (Default) (months)	39				
Comment					