Bridge Culvert Inspection

Bridge File Number	01461 -2 Bridge Culvert	Form Type	CUL1
Year Built	2006	Lot No.	4
Bridge or Town Name	ELKWATER	Inspector Name	Jason Rusu
Located Over	TRIBUTARY TO ROSS CREEK, 2.7.9, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	41:04 C1 15.745	Assistant Class	
Water Body Cl./Year		Inspection Date	14-Jan-2012
Navigabil. Cl./Year		Data Entry By	Anne Roberts
Legal Land Location	SW SEC 3 TWP 10 RGE 3 W4M	Data Entry Date	29-Feb-2012
Longitude, Latitude	-110:20:37, 49:47:27	Reviewer Name	Garry Roberts
Road Authority	Alberta Transportation (AIT)	Review Date	23-Jan-2012
Contract Main. Area	CMA23	Dept. Reviewer Name	Tim Davies
Clear Roadway/Skew	8 / 0 deg.	Dept. Review Date	11-Mar-2012
AADT/Year	650 / 2010 (A)	Follow-Up By	
Road Classification	RAU-209-110		
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	3440	3440	SP	48.77	152X51	3.5	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	West Ditch	Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	No passing In a sag curve.
Vertical Alignment		4	4	
Roadway Width (m)	8.000			
Embankment		8	8	
Sideslope (__:1)	5.0			
(Height of Cover(m) : **5.4**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**4**	**4**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		9	8	
Collar		9	8	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	800			
Scour Protection		4	6	U/S scour erosion displaced in previous high water- repaired
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **350**)				
Scour/Erosion		4	6	
Beavers (Y/N)	No			
Upstream End General Rating		**4**	**6**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Secondary Span, Location Code: MAIN, Span (mm): 3440, Rise (mm): 3440, Type: SP**)				
Barrel Last Accessible Date	07-Nov-2008			1m of water in pipe
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	Shape looks good PR 9
Measured Rise (mm)	3460			
Measured At Ring No.	8			
Sag (mm)	0			
Percent Sag				
Sidewall		N	N	Inward PR 9
Measured Span (mm)	3416			
Measured At Ring No.	8			
Deflection (mm)	24			Est
Percent Deflection				
Floor		N	N	PR 9
Bulge (mm)	0			
Measured At Ring No.				Est
Abrasion (Y/N)				
Circumferential Seams		N	N	PR 9
Separation (mm)	0			
Longitudinal Seams		N	N	PR 9
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)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		9	8	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Secondary Span, Location Code: MAIN, Span (mm): 3440, Rise (mm): 3440, Type: SP**)				
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		9	9	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**N**	**N**	PR 9

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	800			
Scour Protection		4	6	Rip rap is repaired
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **350**)				
Scour/Erosion		4	6	
Beavers (Y/N)	No			
Downstream End General Rating		**4**	**6**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		5	5	U/S channel 90 degrees to pipe
Bank Stability		4	6	
HWM (m below Top of Culvert)	0.0			Flood above crown
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		**4**	**5**	

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) (%)	**55.6/55.6**	**Sufficiency Rating (Last/Now) (%)**	**55.3/59.7**	Est. Repl. Yr	2056	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	Jason Rusu	Previous Assistant's Name			
Next Inspection Date	14-Oct-2013	Previous Inspection Date	07-Aug-2010		
Inspection Cycle (Default) (months)	21				
Comment					