

Bridge Culvert Inspection			
Bridge File Number	77926 -1 Bridge Culvert	Form Type	CULE
Year Built	1978	Lot No.	4
Bridge or Town Name	RAINBOW LAKE	Inspector Name	Brian Pientsch
Located Over	TRIBUTARY TO SOUSA CREEK, 9.21.1, WATERCRS-ST	Inspector Class	BR CLS A
Located On	58:04 C1 11.425	Assistant Name	Clem Guenette
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	11-Jan-2012
Legal Land Location	SE SEC 33 TWP 109 RGE 8 W6M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-119:15:42, 58:30:18	Data Entry Date	04-Mar-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA01	Review Date	26-Feb-2012
Clear Roadway/Skew	15.4 / 15 deg. (RHF)	Dept. Reviewer Name	David Morrison
AADT/Year	740 / 2011 (A)	Dept. Review Date	30-Mar-2012
Road Classification	RAU-211.8-110	Follow-Up By	
Detour Length (km)	999		

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	U/S	-	2700	MP	6	125X26	2.8	ROUND
1	MAIN	-	2438	SP	38.4	152X51	3.5	ROUND
1	D/S	-	3000	MP	11	125X26	2.8	ROUND
Special Features	CONC FLOOR, SHOTCRETE BEAM							
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	SOUTH R/W. FIBRE OPTIC CABLE N R/W.	Gas	
Power	North r/w 3 wire.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

	Last	Now	Explanation of Condition
Horizontal Alignment	7	7	Land access 75m West.
Vertical Alignment	9	9	
Roadway Width (m)	15.000		
Embankment	7	7	
Sideslope (__:1)	4.0		
(Height of Cover(m) : 3)			
Guardrail (Y/N)	No		
Approach Road / Embankment General Rating	7	7	

Upstream End

Culvert Component	Last	Now	Explanation of Condition
Direction	N		
End Treatment (Concrete, Steel, Others, None)	STEEL		
Headwall	X	X	
Collar	X	X	
Wingwalls	X	X	
(Shape :)			

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Cutoff Wall		X	X	
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		7	N	Snow covered
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		7	N	SNow covered
Beavers (Y/N)	No			
Upstream End General Rating		7	7	GR carried fwd from 27-May-2010
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: U/S, Span (mm): , Rise (mm): 2700, Type: MP)				
Barrel Last Accessible Date	11-Jan-2010			
Special Features				
Special Feature		X	N	Covered in ice.
(Type : CONC FLOOR)				
Special Feature				
(Type :)				
Roof		8	8	
Measured Rise (mm)	2747			@ cl Deflection upward. taken 27-May-2010
Measured At Ring No.				
Sag (mm)	47			
Percent Sag	2			
Sidewall		8	8	
Measured Span (mm)	2653			@ cl Deflection inward.
Measured At Ring No.				
Deflection (mm)	47			
Percent Deflection	2			
Floor		N	N	Under water/ice.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		9	8	
Separation (mm)				
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)				
Coating		8	8	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: U/S, Span (mm): , Rise (mm): 2700, Type: MP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		8	8	
Baffle		X	X	
(Type :)				
Waterway Adequacy		8	8	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel Extension General Rating		8	8	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2438, Type: SP)				
Barrel Last Accessible Date	11-Jan-2012			Measured 2380x2486 near cl-2001-10-12
Special Features				
Special Feature		7	7	
(Type : SHOTCRETE BEAM)				
Special Feature				
(Type :)				
Roof		6	N	Sag est- concrete on floor. -11-May-2010 Last barrel section d/s end. 40mmx600mm gash and blistered area from dent. Not measured, ice on floor. 1.56m crown to ice.
Measured Rise (mm)	2326			
Measured At Ring No.	9			
Sag (mm)	83			
Percent Sag				
Sidewall		7	7	
Measured Span (mm)	2384			Deflection inward.
Measured At Ring No.	9			
Deflection (mm)	54			
Percent Deflection	2			
Floor		N	N	Concrete floor. Covered with water/ice.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	6	
Separation (mm)	0			
Longitudinal Seams		6	6	
Total No. of Cracked Rings	2			Ring 4,5,6,7,8- reinforced with shotcrete beam.
Total No. of Rings with Two Cracked Seams				Crcked rings not visible due to shotcrete.
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			1N
Longitudinal Stagger (Y/N)	Yes			
Coating		4	N	Pitting & scaling rust on lower 1/4, and water.-27-May-2010 Not visible due to ice.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2438, Type: SP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		6	6	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: D/S, Span (mm): , Rise (mm): 3000, Type: MP)				
Barrel Last Accessible Date	11-Jan-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	8	@ cl
Measured Rise (mm)	3069			Deflection upward.-27-May-2010
Measured At Ring No.				Measurements not taken, crown to ice is 1.94m.
Sag (mm)	69			
Percent Sag	3			
Sidewall		8	8	@ cl
Measured Span (mm)	2913			Deflection inward.
Measured At Ring No.				
Deflection (mm)	87			
Percent Deflection	3			
Floor		N	N	Under water/ice.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		9	9	
Separation (mm)				
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)				
Coating		8	8	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: D/S, Span (mm): , Rise (mm): 3000, Type: MP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		8	8	
Baffle		X	X	
(Type :)				
Waterway Adequacy		8	8	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel Extension General Rating		8	8	

Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		S		
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)				
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	1000			
Scour Protection		8	N	Snow covered
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Downstream End General Rating		8	8	

Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		8	8	
Bank Stability		8	8	
HWM (m below Top of Culvert)				HWM not visible
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	NONE			Incised channel 18m u/s.
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				

Structure Usage				
		Last	Now	Explanation of Condition
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) (%)	66.7/66.7	Sufficiency Rating (Last/Now) (%)	71.2/71.6	Est. Repl. Yr	2025	Maint. Req. (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	Brian Pientsch		Previous Assistant's Name	Lisbeth Medina			
Next Inspection Date	11-Oct-2013		Previous Inspection Date	27-May-2010			
Inspection Cycle (Default) (months)	21						
Comment							