

Bridge Culvert Inspection			
Bridge File Number	75542 -1 Bridge Culvert	Form Type	CULM
Year Built	1983	Lot No.	4
Bridge or Town Name	LAKE ISLE	Inspector Name	Kris Bosters
Located Over	2ND ORDER TRIBUTARY TO STURGEON RIVER, 6.65.27.2, WATERCRS-ST	Inspector Class	BR CLS A
Located On	633:02 C1 10.480	Assistant Name	Brian Cote
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	20-Jul-2012
Legal Land Location	NW SEC 6 TWP 54 RGE 5 W5M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-114:43:50, 53:38:32	Data Entry Date	07-Aug-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA12	Review Date	06-Aug-2012
Clear Roadway/Skew	9.7 /	Dept. Reviewer Name	Brent Herrick
AADT/Year	440 / 2011 (A)	Dept. Review Date	08-Aug-2012
Road Classification	RCU-209-110	Follow-Up By	
Detour Length (km)	20		

Bridge Culvert Information

Number of Culverts	3							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1200	MP	35	68X13	2.8	ROUND
2	MAIN	-	1200	MP	35	68X13	2.8	ROUND
3	MAIN	-	800	MP	30	68X13	2.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	South r/w	Gas	
Power	South r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

	Last	Now	Explanation of Condition
Horizontal Alignment	6	6	No passing EB. Curve in both directions.
Vertical Alignment	7	7	
Roadway Width (m)	9.700		
Embankment	N	6	
Sideslope (__:1)	3.0		
(Height of Cover(m) : 3.3)			
Guardrail (Y/N)	No		
Approach Road / Embankment General Rating	6	6	

Upstream End

Culvert Component	Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)			
Direction	N		West pipe.
End Treatment (Concrete, Steel, Others, None)	STEEL		
Headwall	X	X	
Collar	X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		N	N	Submerged
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		N	N	(Scour along inlet - photo. 1m x 1.5m x 0.2m deep. 24/Nov/2005)
(Type : NONE)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	
Beavers (Y/N)	No			
Upstream End General Rating		4	4	G.R. carried forward from 24/Nov/2005.

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1200, Type: MP)				
Barrel Last Accessible Date	23-Oct-1994			West pipe, submerged
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	(Viewed from ends shape & condition appear good. Ice & debris .6m from crown.-02-Feb-2009)
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		N	N	(Viewed from ends. Shape appears to be in good condition.-02-Feb-2009)
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)	0			
Percent Deflection				
Floor		N	N	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	
Separation (mm)	20			
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): , Rise (mm): 1200, Type: MP)					
Coating		4	N	Pitting rust lower 1/2.-02-Feb-2009	
Corrosion By Soil (Y/N)					
Corrosion By Water (Y/N)	Yes				
Camber POS/ZERO/NEG	ZERO				
Ponding (Y/N)	No				
Fish Passage Adequacy		X	N		
Baffle		X	X		
(Type :)					
Waterway Adequacy		5	8	(Local land owner advised 2 - 1200 usually ice up completely. 98/04/13)	
Icing (Y/N)	No				
Silting (Y/N)	No			Debris in culvert.-09-Feb-2009	
Drift (Y/N)	Yes				
Barrel General Rating		N	N	Previously rated "7" on 24/Nov/2005.	
Downstream End					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 1, Span Type: Primary Span)					
Direction		S		West pipe .Submerged.	
End Treatment (Concrete, Steel, Others, None)	STEEL				
Headwall		X	X		
Collar		X	X		
Wingwalls		X	X		
(Shape :)					
Cutoff Wall		X	X		
Bevel End		N	N	Submerged	
Heaving (mm)	0				
Invert Above/Below Stream Bed	BELOW				
Above/Below (mm)	300				
Scour Protection		N	N		
(Type : NATURAL)					
(Avg. Rock Size(mm) :)					
Scour/Erosion		N	N		
Beavers (Y/N)	No				
Downstream End General Rating		7	7	GR carried forward from 02-Feb-2009.	
Upstream End					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 2, Span Type: Secondary Span)					
Direction		N		East pipe.	
End Treatment (Concrete, Steel, Others, None)	STEEL				
Headwall		X	X		
Collar		X	X		

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		N	N	Submerged
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		N	N	
(Type : NONE)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	
Beavers (Y/N)	No			
Upstream End General Rating		7	7	GR carried forward from 02-Feb-2009

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1200, Type: MP)				
Barrel Last Accessible Date	23-Oct-1994			East pipe. Submerged
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	Limited view from ends shape & condition appear good. Ice & debris 0.6m from crown.-02-Feb-2009
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		N	N	Limited view from ends, shape appears to be in good shape.-02-Feb-2009
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)	0			
Percent Deflection				
Floor		N	N	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	
Separation (mm)	20			
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 # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1200, Type: MP)				
Coating		4	N	Pitting rust lower 1/2.-02-Feb-2009
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		X	N	
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	N	(Local land owner advised 2 - 1200 usually ice up completely. 98/04/13)
Icing (Y/N)	No			
Silting (Y/N)	No			Debris in culvert.-02-Feb-2009
Drift (Y/N)	Yes			
Barrel General Rating		N	N	Previously rated "7" on 24/Nov/2005.

Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		S		East pipe. Submerged
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		N	N	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		N	N	
(Type : NATURAL)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	
Beavers (Y/N)	No			
Downstream End General Rating		7	7	GR carried forward from 02-Feb-2009.

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 3, Span Type: Secondary Span)				
Direction		N		Center pipe, overflow above SB
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 3, Span Type: Secondary Span)				
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	5	
Heaving (mm)				
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	2000			
Scour Protection		N	5	
(Type : NONE)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	5	
Beavers (Y/N)	No			
Upstream End General Rating		7	5	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 3, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 800, Type: MP)				
Barrel Last Accessible Date				Viewed from ends, shape and condition appear good.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	Shape appears good, not able to see much.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall		N	N	
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)				
Percent Deflection				
Floor		N	N	Silt covered.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	N	
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)				

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 3, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 800, Type: MP)				
Coating		N	5	Minor superficial rust lower 1/3.
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)				
Camber POS/ZERO/NEG				
Ponding (Y/N)				
Fish Passage Adequacy		X	3	Above S.B.
Baffle		X	X	
(Type :)				
Waterway Adequacy		X	5	Drift in culvert.
Icing (Y/N)				
Silting (Y/N)				
Drift (Y/N)	Yes			
Barrel General Rating		N	N	Previously rated "7" on 24/Nov/2005.
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 3, Span Type: Secondary Span)				
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		N	5	
Heaving (mm)				
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	2000			
Scour Protection		N	5	
(Type : NATURAL)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	5	
Beavers (Y/N)				
Downstream End General Rating		7	5	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		7	7	(Drift @ crown of 800 mm. 24/Nov/2005)
Bank Stability		N	7	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	Yes			

Structure Usage				
		Last	Now	Explanation of Condition
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		7	7	

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) (%)	56.9/47.4	Est. Repl. Yr	2027	Maint. Reqd. (Y/N)	No
Special Comments for Next Inspection	(800mm dia pipe installed between 1200mm dia. pipe and approx 1.0m higher than 1200's.-24-Nov-2005)		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	Jacob Oresile		Previous Assistant's Name				
Next Inspection Date	20-Oct-2015		Previous Inspection Date	02-Feb-2009			
Inspection Cycle (Default) (months)	39						
Comment							