

Bridge Culvert Inspection			
Bridge File Number	80527 -1 Bridge Culvert	Form Type	CULM
Year Built	1982	Lot No.	1
Bridge or Town Name	LAMONT	Inspector Name	Jason Saly
Located Over	TRIBUTARY TO LAMONT CREEK, 6.62.4.2, WATERCRS-ST	Inspector Class	BR CLS A
Located On	831:02 C1 4.136	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	02-Jun-2010
Legal Land Location	NW SEC 17 TWP 55 RGE 19 W4M	Data Entry By	Jill Potts
Longitude, Latitude	-112:48:08, 53:45:13	Data Entry Date	02-Jul-2010
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	CMA14	Review Date	24-Jun-2010
Clear Roadway/Skew	8 /	Dept. Reviewer Name	Chris Black
AADT/Year	360 / 2009 (A)	Dept. Review Date	13-Jul-2010
Road Classification	RCU-209-110	Follow-Up By	
Detour Length (km)	3		

Bridge Culvert Information

Number of Culverts	3							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	1880	1260	FP	18	68X13	3.5	ARCH
2	MAIN	-	1200	MP	18	68X13	2.8	ROUND
3	MAIN	-	762	MP	18	68X13	2.8	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	West ditch.	Gas	
Power	1 wire 21m East of c/l.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		9	8	
Vertical Alignment		8	8	
Roadway Width (m)	8.000			
Embankment		N	6	East embankment measured.
Sideslope (__:1)	2.0			
(Height of Cover(m) : 1.4)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		8	8	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		E		South culvert.
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	5	Bevel has slight bend at crown.
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		N	6	Well grassed with some rock riprap.
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	6	
Beavers (Y/N)	No			
Upstream End General Rating		7	5	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1880, Rise (mm): 1260, Type: FP)				
Barrel Last Accessible Date	18-Nov-2003			South culvert (CSP arch). Not accessible to size and water.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	(7.1% sag. 18/11/2003)
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	90			
Percent Sag				
Sidewall		N	N	(1940 x 1170 near c/l. 18/11/2003) (3.2% deflection. 18/11/2003)
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)	60			
Percent Deflection				
Floor		N	N	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	(1st seam from East end. 18/11/2003)
Separation (mm)	140			
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): 1880, Rise (mm): 1260, Type: FP)					
Coating		N	N	(Heavy floor corrosion, scaling & loss of section - photo. 18/11/2003)	
Corrosion By Soil (Y/N)					
Corrosion By Water (Y/N)	Yes				
Camber POS/ZERO/NEG	ZERO				
Ponding (Y/N)	No				
Fish Passage Adequacy		X	5		
Baffle		X	X		
(Type :)					
Waterway Adequacy		N	5	(Some gravel washed into barrel. 18/11/2003)	
Icing (Y/N)	No				
Silting (Y/N)	No				
Drift (Y/N)	No				
Barrel General Rating		4	4	G.R. carried forward since 18/Nov/2003.	
Downstream End					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 1, Span Type: Primary Span)					
Direction		W		South culvert.	
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	Small tear in bevel from installation -photo.	
Heaving (mm)	0				
Invert Above/Below Stream Bed	BELOW				
Above/Below (mm)	300				
Scour Protection		N	6		
(Type :)					
(Avg. Rock Size(mm) :)					
Scour/Erosion		N	6		
Beavers (Y/N)	No				
Downstream End General Rating		5	5		
Upstream End					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 2, Span Type: Secondary Span)					
Direction		E		Middle culvert.	
End Treatment (Concrete, Steel, Others, None)	NONE				
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		X	X	No bevel.
Heaving (mm)				
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		N	6	Well grassed with some rock.
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	6	
Beavers (Y/N)	No			
Upstream End General Rating		7	6	

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	18-Nov-2003			Middle pipe. Not accessible due to size and water levels.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	(7.1% sag. 18/11/2003)
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	90			
Percent Sag				
Sidewall		N	N	(1940 X 1170 near c/l. 18/11/2003) (3.2% deflection. 18/11/2003)
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)	60			
Percent Deflection				
Floor		N	N	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	(1st seam from East end. 18/11/2003)
Separation (mm)	140			
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		N	N	(Heavy floor corrosion, scaling & loss of section - photo. 18/11/2003)
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		X	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		N	5	(Some gravel washed into barrel. 18/11/2003)
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		4	4	G.R. carried forward since 18/Nov/2003.

Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		W		Middle culvert.
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	X	No bevel.
Heaving (mm)				
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	300			
Scour Protection		N	6	
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	6	
Beavers (Y/N)	No			
Downstream End General Rating		7	6	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 3, Span Type: Secondary Span)				
Direction		E		North pipe.
End Treatment (Concrete, Steel, Others, None)	NONE			
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		N	X	No bevel.
Heaving (mm)				
Invert Above/Below Stream Bed				
Above/Below (mm)				
Scour Protection		N	6	Well grassed.
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	6	
Beavers (Y/N)				
Upstream End General Rating		5	6	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 3, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 762, Type: MP)				
Barrel Last Accessible Date	18-Nov-2003			North pipe. Pipe too small to access.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	90			
Percent Sag				
Sidewall		N	N	
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)	60			
Percent Deflection				
Floor		N	N	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	(1st seam from East end. 18/11/2003)
Separation (mm)	140			
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): 762, Type: MP)				
Coating		N	N	(Heavy floor corrosion, scaling & loss of section - photo. 18/11/2003)
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		N	5	(Some gravel washed into barrel). 18/11/2003
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		2	2	See comments at back.
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 3, Span Type: Secondary Span)				
Direction		W		North pipe.
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		N	X	Hole at crown of pipe. Crown dented downwards.
Heaving (mm)				
Invert Above/Below Stream Bed				
Above/Below (mm)				
Scour Protection		N	5	Well grassed.
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	5	
Beavers (Y/N)				
Downstream End General Rating		5	5	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		N	7	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			

Structure Usage				
		Last	Now	Explanation of Condition
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	No			
(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	2010	Fill small pipe with grout. Complete if not done.					
OTHER ACTION	2010	Assess options for other two pipes.					
OTHER ACTION	2010	Place on the list for replacement, could be changed to non bridge file size pipes.					
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	22.2/22.2	Sufficiency Rating (Last/Now) (%)	54.7/42.2	Est. Repl. Yr	2013	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	(The 762mm MP has a hole torn in it at the D/S end and is flattened slightly. Floor has rusted through - photo. Rated 2. 18/11/2003) (Replace comments: 762mm pipe is the third one and therefore would not be rated as a secondary pipe. However, maintenance recommendations of replacing West side is also not cost efficient. It is not known when the original crossing was installed. Should wait until the crossing is replaced. 00/10/25)		Department Comments				
Maintenance Reviewed By			Date			Estimated Total	0
Proposed Long-Term Strategy	Install concrete floors. Culvert should be good until 2042. RS Complete Hydraulic assessment to confirm appropriate size. Replace with liner or maintain with concrete lined floor.						
On 3-Year Program (Y/N)							
Proposed Action							
Previous Inspector's Name	Tim Davies		Previous Assistant's Name				
Next Inspection Date	02-Sep-2013		Previous Inspection Date	21-Mar-2007			
Inspection Cycle (Default) (months)	39						
Comment							