

Bridge Culvert Inspection				
Bridge File Number	13926 -1 Bridge Culvert		Form Type	CULM
Year Built	1986		Lot No.	2
Bridge or Town Name	LAMONT		Inspector Name	Owen Salava
Located Over	TRIBUTARY TO WHITFORD CREEK, 6.48.4.1, WATERCRS-ST		Inspector Class	BR CLS A
Located On	29:02 C1 28.295		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	08-Nov-2012
Legal Land Location	SW SEC 25 TWP 55 RGE 17 W4M		Data Entry By	Marcia Chavez
Longitude, Latitude	-112:24:03, 53:46:25		Data Entry Date	20-Nov-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	John O'Brien
Contract Main. Area	CMA14		Review Date	14-Nov-2012
Clear Roadway/Skew	12 / -45 deg. (LHF)		Dept. Reviewer Name	Andrew Smikles
AADT/Year	1,000 / 2011 (A)		Dept. Review Date	26-Nov-2012
Road Classification	RCU-210-110		Follow-Up By	
Detour Length (km)	5			

Bridge Culvert Information								
Number of Culverts	2							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1800	MP	42	68X13	3.5	ROUND
2	MAIN	-	1800	MP	42	68X13	3.5	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)			
Utility Attachments			
Telephone	South ditch.	Gas	Crossing 250m West.
Power	2 wires 23m North of c/l.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment				
		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	East of RR 171.
Vertical Alignment		8	8	
Roadway Width (m)	12.000			
Embankment		6	6	Wide transverse crack in roadway over pipe - photo. North embankment measured.
Sideslope (__:1)	2.5			
(Height of Cover(m) : 1.9)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		7	7	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		S		West culvert.
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
(Pipe # : 1, Span Type: Primary Span)				
Cutoff Wall		X	X	
Bevel End		6	6	
Heaving (mm)	300			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		6	N	East side of bevel exposed due to skew. Well vegetated. Snow covered.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 250)				
Scour/Erosion		6	N	
Beavers (Y/N)	No			
Upstream End General Rating		6	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	08-Nov-2012			West culvert.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	Unable to measure due to ice.
Measured Rise (mm)	1665			At c/l.
Measured At Ring No.	3			
Sag (mm)	135			
Percent Sag	7			
Sidewall		5	5	South end.
Measured Span (mm)	1902			
Measured At Ring No.	2			
Deflection (mm)	102			
Percent Deflection	5			
Floor		5	5	Scaling.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	6	
Separation (mm)	90			
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		4	4	Corrosion/scaling - no action.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1800, Type: MP)				
Camber POS/ZERO/NEG	NEG			
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		4	5	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		N		West culvert.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		6	6	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		7	N	Well vegetated. Snow covered.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 250)				
Scour/Erosion		7	N	
Beavers (Y/N)	No			
Downstream End General Rating		6	6	
Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		S		East culvert.
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
(Pipe # : 2, Span Type: Secondary Span)				
Bevel End		5	5	Seam not tight. 30mm vertical separation.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		6	N	Well vegetated. Snow covered.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 250)				
Scour/Erosion		6	N	
Beavers (Y/N)	No			
Upstream End General Rating		5	5	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1800, Type: MP)				
Barrel Last Accessible Date	08-Nov-2012			East culvert.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		4	4	Unable to measure due to ice - no action.
Measured Rise (mm)	1648			
Measured At Ring No.	3			
Sag (mm)	152			
Percent Sag	8			
Sidewall		5	4	No action.
Measured Span (mm)	1878			
Measured At Ring No.	3			
Deflection (mm)	98			
Percent Deflection	5			
Floor		5	5	Scaling.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		4	4	30mm vertical gap; minor infiltration.
Separation (mm)	40			
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		4	4	Corrosion/scaling - photo, no action.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1800, Type: MP)				
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		4	4	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		N		East culvert.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		6	5	Not in line, West side of bevel exposed.
Heaving (mm)	200			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		5	N	Snow covered.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 250)				
Scour/Erosion		5	N	
Beavers (Y/N)	No			
Downstream End General Rating		5	5	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		5	5	30 degree angle @ D/S, follows ditch East.
Bank Stability		7	7	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degradation/Aggrading	DEGRADING			(14Aug2009). Snow covered.
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		5	5	

Maintenance Recommendations											
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	Structural Condition Rating (Last/Now) (%)	Sufficiency Rating (Last/Now) (%)	Est. Repl. Yr	Maint. Req'd. (Y/N)	Yes
SHOTCRETE REPAIRS											
PLACE ADDITIONAL RIP RAP											
REMOVE DRIFT ACCUMULATION											
INSTALL CONCRETE/STEEL LINING											
INSTALL STRUTS											
INSTALL CONCRETE COLLAR/CUTOFF											
REPAIR SEAMS											
OTHER ACTION	2013	Seal ACP crack over pipe.									
OTHER ACTION	2013	Seal E CSP jnt with expanding foam.									
OTHER ACTION											
OTHER ACTION											
OTHER ACTION											
Structural Condition Rating (Last/Now) (%)		44.4/44.4						55.9/55.9	2041		Yes
Special Comments for Next Inspection			Department Comments								
Maintenance Reviewed By			Date								
Proposed Long-Term Strategy											
On 3-Year Program (Y/N)											
Proposed Action											
Previous Inspector's Name	Dave Lam		Previous Assistant's Name								
Next Inspection Date	08-Aug-2014		Previous Inspection Date	07-Dec-2010							
Inspection Cycle (Default) (months)	21										
Comment											
				Estimated Total	0						

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	2013	Seal ACP crack over pipe.	Programmed	2013		
OTHER ACTION	2013	Seal E CSP jnt with expanding foam.	Programmed	2013		
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
Structural Condition Rating (Last/Now) (%)	44.4/44.4	Sufficiency Rating (Last/Now) (%)	55.9/55.9	Est. Repl. Yr	2041	Maint. Req. (Y/N) Yes
Special Comments for Next Inspection			Department Comments	Replacement programmed for 2022.		
Maintenance Reviewed By	Andrew Smikles		Date	17-Dec-2012	Estimated Total	0
Proposed Long-Term Strategy						
On 3-Year Program (Y/N)						
Proposed Action						
Previous Inspector's Name	Dave Lam		Previous Assistant's Name			
Next Inspection Date	08-Aug-2014		Previous Inspection Date	07-Dec-2010		
Inspection Cycle (Default) (months)	21					
Comment						