

Bridge Culvert Inspection			
Bridge File Number	72594 -1 Bridge Culvert	Form Type	CUL1
Year Built	1955	Lot No.	4
Bridge or Town Name	RICINUS	Inspector Name	Owen Salava
Located Over	TRIBUTARY TO CLEARWATER RIVER, 6.159.13, WATERCRS-ST	Inspector Class	BR CLS A
Located On	591:02 C1 22.595	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	24-Oct-2011
Legal Land Location	SW SEC 17 TWP 36 RGE 7 W5M	Data Entry By	Marcia Chavez
Longitude, Latitude	-114:58:27, 52:05:10	Data Entry Date	29-Nov-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	CMA18	Review Date	14-Nov-2011
Clear Roadway/Skew	7.8 / 45 deg. (RHF)	Dept. Reviewer Name	Andrew Smikles
AADT/Year	490 / 2010 (A)	Dept. Review Date	02-Dec-2011
Road Classification	RCU-209-110	Follow-Up By	
Detour Length (km)	150		

**Bridge Culvert Information**

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2489	1752	RPP	18.9	152X51	3.5	PIPE ARCH
Special Features								
Special Features Comment								

**Utilities (Located at)**

Utility Attachments			
Telephone	In r/w to South.	Gas	
Power	2 wires 15m North of c/l.	Municipal	
Others		Problem (Y/N)	No
Remarks			

**Approach Road / Embankment**

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	Typical approaches both sides of culvert, North side.
Vertical Alignment		9	9	
Roadway Width (m)	7.800			
Embankment		5	5	End of pipe at crown 1.9 m from edge of guardrail on D/S end.
Sideslope ( __:1)	2.0			
(Height of Cover(m) : <b>0.5</b> )				
Guardrail (Y/N)	Yes			Minor damage at NE, SE; 3 broken posts, multiple scrapes (photo).
<b>Approach Road / Embankment General Rating</b>		<b>8</b>	<b>8</b>	

**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 : )				
Cutoff Wall		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		5	5	Corrosion / heaving.
Heaving (mm)	50			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	150			
Scour Protection		N	5	
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>150</b> )				
Scour/Erosion		N	5	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>5</b>	<b>5</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2489, Rise (mm): 1752, Type: RPP)				
Barrel Last Accessible Date	24-Oct-2011			
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		6	6	R2 - 1775mm - 1.3%. Silted in.
Measured Rise (mm)	1775			
Measured At Ring No.	2			
Sag (mm)	23			
Percent Sag	1			
Sidewall		5	5	R2 - 2355 mm - 5.4%.
Measured Span (mm)	2355			
Measured At Ring No.	2			
Deflection (mm)	134			
Percent Deflection	5			
Floor		N	N	250mm of gravel etc. on floor.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		5	5	Up to 6 mm seam gaps.
Separation (mm)	6			
Longitudinal Seams		5	5	Up to 10 mm seam gaps.
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		4	4	Rust at water line, surface corrosion.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2489, Rise (mm): 1752, Type: RPP)				
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type : )				
Waterway Adequacy		5	5	
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	Yes			
<b>Barrel General Rating</b>		<b>5</b>	<b>5</b>	
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		5	5	Corrosion. Minor.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		N	5	Overgrown with vegetation at SE.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 150)				
Scour/Erosion		N	5	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>5</b>	<b>5</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		5	5	Bends u/s & d/s of pipe.
Bank Stability		6	6	
HWM (m below Top of Culvert)				(HW to crown of pipe evident from drift accumulation @ NW bank - photo. 28Jan2005). HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	AGGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
<b>Channel General Rating</b>		<b>5</b>	<b>5</b>	

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	2012	Replace 3ft. approach rail posts.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>55.6/55.6</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>51.7/51.7</b>	Est. Repl. Yr	2020	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection			Department Comments				
Maintenance Reviewed By			Date			Estimated Total	0
Proposed Long-Term Strategy	2004.12.27 Culvert should be ok with normal maintenance until 2015.						
On 3-Year Program (Y/N)							
Proposed Action							
Previous Inspector's Name	Owen Salava		Previous Assistant's Name				
Next Inspection Date	24-Jan-2015		Previous Inspection Date	06-Dec-2010			
Inspection Cycle (Default) (months)	39						
Comment							