

Bridge Culvert Inspection			
Bridge File Number	71685 -1 Bridge Culvert	Form Type	CUL1
Year Built	1953	Lot No.	1
Bridge or Town Name	KILLAM	Inspector Name	Owen Salava
Located Over	2ND ORDER TRIBUTARY TO IRON CREEK, 5.16.4.1, WATERCRS-ST	Inspector Class	BR CLS A
Located On	13:16 C1 0.456	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	28-Jun-2012
Legal Land Location	SW SEC 16 TWP 44 RGE 13 W4M	Data Entry By	Marcia Chavez
Longitude, Latitude	-111:50:07, 52:47:31	Data Entry Date	15-Jul-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	CMA16	Review Date	05-Jul-2012
Clear Roadway/Skew	10.5 / -30 deg. (LHF)	Dept. Reviewer Name	Andrew Smikles
AADT/Year	2,110 / 2011 (A)	Dept. Review Date	19-Jul-2012
Road Classification	RAU-211.8-110	Follow-Up By	
Detour Length (km)	2		

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1524	MP	31.7	68X13		ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

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

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	Farm access @ 50m West.
Vertical Alignment		8	8	
Roadway Width (m)	10.500			
Embankment		6	6	Wide transverse crack over pipe - previously sealed. South end measured.
Sideslope (__:1)	2.5			
(Height of Cover(m) : 2.5)				
Guardrail (Y/N)	Yes			N shoulder only.
Approach Road / Embankment General Rating		8	8	

Upstream 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	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		5	5	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		6	6	Well grassed.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 200)				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
Upstream End General Rating		5	5	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm):				, Rise (mm): 1524, Type: MP)
Barrel Last Accessible Date	24-Jan-2009			Middle 1/2 not viewed, water to 0.6m from roof, some flattening visible.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	(Roof estimated sag is 90 mm. 24Jan2009).
Measured Rise (mm)				(Beginning to flatten @ 2/3 L.
Measured At Ring No.				(6% roof sag.) 95/05/08.)
Sag (mm)	90			
Percent Sag	6			
Sidewall		N	N	(Localized perforations & infiltration - photo. 24Jan2009).
Measured Span (mm)	1600			
Measured At Ring No.	3			
Deflection (mm)	100			(8.9% deflection. 24Jan2009).
Percent Deflection	7			
Floor		N	N	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	(Measured at ring 6/7 with fill coming in - minor (photo). 24Jan2009).
Separation (mm)	190			
Longitudinal Seams		5	N	Riveted.
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				
Coating		3	N	(Rusting along sidewall from soil. Waterline is 700mm above invert. Localized perforations. 31Aug2010).
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1524, Type: MP)				
Ponding (Y/N)	Yes			
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	
Icing (Y/N)	Yes			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		3	3	GR carried forward from 24Jan2009 probably due to flattened roof.
Downstream 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	
Bevel End		5	5	
Heaving (mm)	300			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	300			
Scour Protection		5	5	
(Type : NATURAL)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		5	5	
Beavers (Y/N)	No			
Downstream End General Rating		5	5	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		6	6	
Bank Stability		7	7	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				Unknown.
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		6	6	

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	2012	Repair separated circumferential seam at 2/3 L (if not done).					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	33.3/33.3	Sufficiency Rating (Last/Now) (%)	44.7/44.8	Est. Repl. Yr	2020	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Monitor corrosion in sidewalls.		Department Comments				
Maintenance Reviewed By			Date			Estimated Total	0
Proposed Long-Term Strategy	2004.05.30 Culvert should be ok until 2023.						
On 3-Year Program (Y/N)							
Proposed Action							
Previous Inspector's Name	Owen Salava		Previous Assistant's Name				
Next Inspection Date	28-Mar-2014		Previous Inspection Date	31-Aug-2010			
Inspection Cycle (Default) (months)	21						
Comment							