

Bridge Culvert Inspection				
Bridge File Number	78119 -1 Bridge Culvert		Form Type	CUL1
Year Built	1975		Lot No.	1
Bridge or Town Name	SMOKY LAKE		Inspector Name	Kris Bosters
Located Over	SMOKY CREEK, 6.46, WATERCRS-ST		Inspector Class	BR CLS A
Located On	28:08 C1 4.580		Assistant Name	Brian Cote
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	10-Apr-2012
Legal Land Location	SE SEC 13 TWP 59 RGE 18 W4M		Data Entry By	Lisa Fairhurst
Longitude, Latitude	-112:33:20, 54:06:01		Data Entry Date	25-Apr-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Eric Carcoux
Contract Main. Area	CMA07		Review Date	25-Apr-2012
Clear Roadway/Skew	13.2 / 30 deg. (RHF)		Dept. Reviewer Name	Brent Herrick
AADT/Year	3,570 / 2011 (A)		Dept. Review Date	04-May-2012
Road Classification	RAU-213.4-110		Follow-Up By	
Detour Length (km)	3			

Bridge Culvert Information								
Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	PI./Slab Thickness	Shape
1	MAIN	-	1524	MP	46.3	68X13	3.5	ROUND
Special Features		VERT STEEL STRUTS						
Special Features Comment								

Utilities (Located at)			
Utility Attachments			
Telephone	North r/w.		Gas
Power			Municipal
Others			Problem (Y/N) No
Remarks			

Approach Road / Embankment				
		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Intersection 150m East.
Vertical Alignment		8	8	
Roadway Width (m)	13.200			
Embankment		7	7	5m berms.
Sideslope (__:1)	3.0			
(Height of Cover(m) : 1.8)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		7	7	

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		6	6	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		7	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 150)				
Scour/Erosion		7	7	
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): 1524 , Type: MP)				
Barrel Last Accessible Date	27-May-2003			Deep flow and steel struts.
Special Features				
Special Feature		6	6	As viewed from ends. Lower 1/2 of struts have scaling rust.
(Type : VERT STEEL STRUTS)				
Special Feature				
(Type :)				
Roof		N	N	(1660 x 1360 @ 1/4 point.2003/05/27)
Measured Rise (mm)	1360			(10.7%. 2003/05/27)
Measured At Ring No.				No issues apparent.
Sag (mm)	164			
Percent Sag	11			
Sidewall		N	N	No issues apparent.
Measured Span (mm)	1660			
Measured At Ring No.				(8.9%. 2003/05/27)
Deflection (mm)	136			
Percent Deflection	9			
Floor		N	N	(Severely rusted with loss of section. 2001/09/17)
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	(Couplers bolted to pipe with field cut holes. 2003/05/27)
Separation (mm)	175			
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	Scaling/pitting rust apparent @ u/s 1/2 on lower 50% of barrel.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1524, Type: MP)				
Fish Passage Adequacy		6	6	
Baffle		N	N	
(Type :)				
Waterway Adequacy		5	5	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		3	3	(G.R. from 27/May/2003 based on roof sag.)
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	50% under water. Rated visible portion.
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		7	4	Slump failure at SE corner at riprap apron. 1m x 1m x 1m - photo
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 250)				
Scour/Erosion		7	4	Slump failure at SE corner at riprap apron.
Beavers (Y/N)	No			
Downstream End General Rating		5	4	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		7	7	Man made channel with smooth radius corners.
Bank Stability		6	6	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	NONE			
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							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	33.3/33.3	Sufficiency Rating (Last/Now) (%)	44.3/43.2	Est. Repl. Yr	2016	Maint. Req. (Y/N)	No
Special Comments for Next Inspection			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	Shane Hall		Previous Assistant's Name				
Next Inspection Date	10-Jan-2014		Previous Inspection Date	21-Jul-2010			
Inspection Cycle (Default) (months)	21						
Comment							