

Bridge Culvert Inspection				
Bridge File Number	07005 -1 Bridge Culvert		Form Type	CUL1
Year Built	1974		Lot No.	4
Bridge or Town Name	COOKING LAKE		Inspector Name	Kris Bosters
Located Over	TRIBUTARY TO COOKING LAKE, 72.3, WATERCRS-ST		Inspector Class	BR CLS A
Located On	14:06 C1 15.937		Assistant Name	Brian Cote
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	09-Jan-2013
Legal Land Location	SE SEC 16 TWP 51 RGE 21 W4M		Data Entry By	Theresa Lacusta
Longitude, Latitude	-113:01:50, 53:23:45		Data Entry Date	16-Jan-2013
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Eric Carcoux
Contract Main. Area	CMA09		Review Date	09-Jan-2013
Clear Roadway/Skew	13.3 / -30 deg. (LHF)		Dept. Reviewer Name	Paul Catt
AADT/Year	5,840 / 2011 (A)		Dept. Review Date	18-Jan-2013
Road Classification	RAU-213.4-120		Follow-Up By	
Detour Length (km)	6			

**Bridge Culvert Information**

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	1724	1901	SPE	41.5	152X51	2.8	ELLIPSE
Special Features								
Special Features Comment		BF tag on S end.						

**Utilities (Located at)**

Utility Attachments				
Telephone	N ROW		Gas	
Power			Municipal	
Others			Problem (Y/N)	No
Remarks				

**Approach Road / Embankment**

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Approaches east & west of pipe approx 50 m each way. Crest curve to east.
Vertical Alignment		7	7	
Roadway Width (m)	13.300			
Embankment		8	8	
Sideslope ( __:1)	5.0			
(Height of Cover(m) : <b>0.8</b> )				
Guardrail (Y/N)	No			
<b>Approach Road / Embankment General Rating</b>		<b>7</b>	<b>7</b>	

**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		6	6	Minor damage4 to top of bevel from equipment.
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		N	N	Snow covered
(Type : <b>NATURAL</b> )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		N	N	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>6</b>	<b>6</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1724, Rise (mm): 1901, Type: SPE)				
Barrel Last Accessible Date	07-Jan-2013			
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		5	5	Small slash in roof from lawn mower near north invert 25mm x 200mm.-Mar, 2003 Not found Ice in bottom(~100mm)
Measured Rise (mm)	1922			
Measured At Ring No.	6			
Sag (mm)	21			
Percent Sag				
Sidewall		5	3	Several loose and over torqued bolts.  (6mm isolated perforations at 4:00 on R5,11.-photo (typical)
Measured Span (mm)	1718			
Measured At Ring No.	6			
Deflection (mm)	6			
Percent Deflection				
Floor		4	4	Pitting bottom 1/4 pipe.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		5	5	Missing & loose bolts on top circumferential seam R2, 7, 9, 10. Estimated 6 bolts missing.
Separation (mm)	15			
Longitudinal Seams		5	5	several loose bolts. Several over torqued bolts.
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	3	Pitting rust along floor, and lower seam. Small isolated perforations at 4:00 caused by soilside.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1724, Rise (mm): 1901, Type: SPE)				
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type : )				
Waterway Adequacy		7	7	Rock.
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	Yes			
<b>Barrel General Rating</b>		<b>5</b>	<b>3</b>	
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		7	7	Small trees growing around bevel.
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	100			
Scour Protection		N	N	Snow covered
(Type : <b>NATURAL</b> )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		N	N	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>7</b>	<b>7</b>	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		8	8	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				
<b>Channel General Rating</b>		<b>7</b>	<b>7</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							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>55.6/33.3</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>61.4/50.0</b>	Est. Repl. Yr	2024	Maint. Req. (Y/N)	No
Special Comments for Next Inspection	Monitor soil side corrosion locations and size.		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	Todd Warshawski		Previous Assistant's Name				
Next Inspection Date	09-Oct-2014		Previous Inspection Date	09-Feb-2011			
Inspection Cycle (Default) (months)	21						
Comment							