Bridge Culvert Inspection

Bridge File Number	06775 -1 Bridge Culvert	Form Type	CUL1
Year Built	1971	Lot No.	4
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	855:18 C1 19.617	Assistant Name	Brian Cote
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	12-Dec-2012
Legal Land Location	NW SEC 33 TWP 58 RGE 17 W4M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-112:28:44, 54:03:48	Data Entry Date	15-Jan-2013
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA07	Review Date	19-Dec-2012
Clear Roadway/Skew	9 / -15 deg. (LHF)	Dept. Reviewer Name	Paul Catt
AADT/Year	650 / 2011 (A)	Dept. Review Date	18-Jan-2013
Road Classification	RCU-209-110	Follow-Up By	
Detour Length (km)	30		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2019	2226	SPE	39.6	152X51	3.5	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	East r/w.	Gas	
Power	2 wires OH 22m East of c/l.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	6	Horizontal curve across pipe. Local road intersection 100m North. No pass S.B.
Vertical Alignment		7	7	
Roadway Width (m)	8.300			West embankment measured.
Embankment		7	7	4.5
Sideslope (__:1)	3.0			
(Height of Cover(m) :)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**6**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		W		
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	N	Snow covered
Heaving (mm)	150			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		5	N	Snow covered
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		5	N	
Beavers (Y/N)	Yes			
Upstream End General Rating		**5**	**5**	Carried over

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2019, Rise (mm): 2226, Type: SPE**)				
Barrel Last Accessible Date	02-Sep-2009			Ice 600mm from roof. Viewed from ends, shape looks good.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		5	N	Silt/debris on floor. Unable to measure rise.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall		5	N	
Measured Span (mm)	2145			
Measured At Ring No.	5			
Deflection (mm)	126			
Percent Deflection	6			
Floor		N	N	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	N	
Separation (mm)	0			
Longitudinal Seams		5	N	
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	N	Pitting rust lower 1/2.-02-Sep-2009
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			Up to nearly 500 negative camber.
Ponding (Y/N)	Yes			Dam d/s of culvert.

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2019, Rise (mm): 2226, Type: SPE**)				
Fish Passage Adequacy		4	6	
Baffle		N	N	
(Type :)				
Waterway Adequacy		5	5	Drift in pipe.
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	Yes			
Barrel General Rating		**5**	**N**	Last rated 5 on 02-Sep-2009.

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		6	N	Snow covered
Heaving (mm)	150			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		5	N	
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		5	N	
Beavers (Y/N)	Yes			15m d/s
Downstream End General Rating		**5**	**5**	Carried over.

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		7	7	
HWM (m below Top of Culvert)	0.6			(24/May/2006)
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading	DEGRADING			Beaver dam 15 m D/S.
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**7**	**7**	

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) (%)	**55.6/55.6**	**Sufficiency Rating (Last/Now) (%)**	**47.7/53.8**	Est. Repl. Yr	2030	Maint. Reqd. (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	Melanie Johnson	Previous Assistant's Name	
Next Inspection Date	12-Mar-2016	Previous Inspection Date	02-Sep-2009
Inspection Cycle (Default) (months)	39		
Comment			