Bridge Culvert Inspection

Bridge File Number	80521 -1 Bridge Culvert	Form Type	CUL1
Year Built	1983	Lot No.	4
Bridge or Town Name	SMOKY LAKE	Inspector Name	Kris Bosters
Located Over	2ND ORDER TRIBUTARY TO WHITE EARTH CREEK, 6.45.6.1, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	Brian Cote
Located On	855:20 C1 20.685	Assistant Class	
Water Body Cl./Year		Inspection Date	12-Dec-2012
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	NW SEC 28 TWP 61 RGE 17 W4M	Data Entry Date	15-Jan-2013
Longitude, Latitude	-112:29:21, 54:18:20	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	19-Dec-2012
Contract Main. Area	CMA07	Dept. Reviewer Name	Paul Catt
Clear Roadway/Skew	11 / 18 deg. (RHF)	Dept. Review Date	18-Jan-2013
AADT/Year	330 / 2011 (A)	Follow-Up By	
Road Classification	RCU-209-110		
Detour Length (km)	50		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1600	MP	36	68X13	2.8	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

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

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	
Vertical Alignment		7	7	
Roadway Width (m)	10.500			East embankment measured.
Embankment		7	7	
Sideslope (__:1)	4.0			
(Height of Cover(m) : **1.9**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream 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	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		7	N	Snow covered
Heaving (mm)	50			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		7	N	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		7	N	
Beavers (Y/N)	Yes			Grader blades layed at inlet to deter beavers. Upstream 20m.
Upstream End General Rating		**7**	**7**	Carried over

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1600, Type: MP**)				
Barrel Last Accessible Date	12-Dec-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	6	
Measured Rise (mm)	1560			
Measured At Ring No.	2			
Sag (mm)	60			
Percent Sag	3			
Sidewall		5	5	
Measured Span (mm)	1700			
Measured At Ring No.	3			
Deflection (mm)	100			
Percent Deflection	6			
Floor		7	7	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	70			
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		6	6	Minor superficial rust lower 1/3.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
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): 1600, Type: MP**)				
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	
Icing (Y/N)	No			Debris from beavers.
Silting (Y/N)	No			
Drift (Y/N)	Yes			
Barrel General Rating		**5**	**5**	

Downstream 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	
Bevel End		7	N	Snow covered
Heaving (mm)	50			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		7	N	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		7	N	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**7**	Carried over.

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	DEGRADING			
Beavers (Y/N)	Yes			
(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) (%)	**55.6/55.6**	**Sufficiency Rating (Last/Now) (%)**	**60.1/57.8**	Est. Repl. Yr	2023	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	10-Sep-2009		
Inspection Cycle (Default) (months)	39				
Comment					