Bridge Culvert Inspection

Bridge File Number	82178 -2 Bridge Culvert	Form Type	CUL1
Year Built	2005	Lot No.	4
Bridge or Town Name	RED DEER	Inspector Name	Jason Saly
Located Over	GONIKA CREEK, 6.138.2, WATERCRS-ST	Inspector Class	BR CLS A
Located On	595:02 C1 19.227	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	22-Nov-2011
Legal Land Location	SE SEC 2 TWP 38 RGE 25 W4M	Data Entry By	Marcia Chavez
Longitude, Latitude	-113:27:40, 52:13:49	Data Entry Date	22-Dec-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	CMA19	Review Date	15-Dec-2011
Clear Roadway/Skew	13 / 0 deg.	Dept. Reviewer Name	Andrew Smikles
AADT/Year	2,590 / 2010 (A)	Dept. Review Date	09-Jan-2012
Road Classification	RAU-211.8-110	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	-	2000	MP	58.5			ROUND

Special Features	
Special Features Comment	

Utilities (Located at)

Utility Attachments			
Telephone	In North ditch.	Gas	
Power	1 o/h N fence line.	Municipal	
Others		Problem (Y/N)	No
Remarks	Telus line crosses channel above ground.		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	
Vertical Alignment		7	7	
Roadway Width (m)	13.000			
Embankment		8	8	
Sideslope (__:1)	4.0			
(Height of Cover(m) : **4**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

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		9	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		9	8	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		9	N	Snow covered.
Beavers (Y/N)	No			
Upstream End General Rating		**9**	**8**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2000, Type: MP**)				
Barrel Last Accessible Date	22-Nov-2011			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		9	7	Rise at S end=2030=30mm Rise at Midpipe=2045=2.3%
Measured Rise (mm)	2045			
Measured At Ring No.				
Sag (mm)	45			2.3%
Percent Sag	2			
Sidewall		9	7	Span at S end 1965=35mm Span at Midpipe=1950=50mm=2.5% Span at N end=1950=50mm
Measured Span (mm)	1950			
Measured At Ring No.				
Deflection (mm)	50			2.5%
Percent Deflection	3			
Floor		9	8	Partially covered by dirt.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		8	8	
Separation (mm)	20			
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		9	8	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
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): 2000, Type: MP**)				
Fish Passage Adequacy		8	8	
Baffle		X	X	
(Type :)				
Waterway Adequacy		8	8	
Icing (Y/N)	No			
Silting (Y/N)	Yes			Dirt/silt at N end of pipe.
Drift (Y/N)	No			
Barrel General Rating		**9**	**7**	

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		9	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	500			
Scour Protection		9	8	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		9	N	Snow covered.
Beavers (Y/N)	No			
Downstream End General Rating		**9**	**8**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		9	8	
HWM (m below Top of Culvert)				No HWM visible.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	No			
(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) (%)	**100.0/77.8**	**Sufficiency Rating (Last/Now) (%)**	**94.8/80.5**	Est. Repl. Yr	2050	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)	Y				
Proposed Action	2003.07.04 Repalce culvert with road construction in 2008.				
Previous Inspector's Name	Kevin Henshaw	Previous Assistant's Name			
Next Inspection Date	22-Feb-2015	Previous Inspection Date	12-Dec-2005		
Inspection Cycle (Default) (months)	39				
Comment					