Bridge Culvert Inspection

Bridge File Number	70815 -1 Bridge Culvert	Form Type	CUL1
Year Built	2001	Lot No.	4
Bridge or Town Name	RED DEER	Inspector Name	Jason Saly
Located Over	2ND ORDER TRIBUTARY TO RED DEER RIVER, 3.73.2, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	595:02 C1 8.976	Assistant Class	
Water Body Cl./Year		Inspection Date	22-Nov-2011
Navigabil. Cl./Year		Data Entry By	Marcia Chavez
Legal Land Location	SE SEC 2 TWP 38 RGE 26 W4M	Data Entry Date	21-Dec-2011
Longitude, Latitude	-113:36:41, 52:13:49	Reviewer Name	John O'Brien
Road Authority	Alberta Transportation (AIT)	Review Date	15-Dec-2011
Contract Main. Area	CMA19	Dept. Reviewer Name	Andrew Smikles
Clear Roadway/Skew	12.1 /	Dept. Review Date	09-Jan-2012
AADT/Year	3,080 / 2010 (A)	Follow-Up By	
Road Classification	RAU-211.8-110		
Detour Length (km)	3		

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	49	125X26	2.8	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	South of c/l (toll line).	Gas	
Power	2 o/h along N fence line.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		8	7	200m West of intersection. Includes EB left turning lane.
Vertical Alignment		7	7	
Roadway Width (m)	13.500			
Embankment		7	7	
Sideslope (__:1)	1.5			
(Height of Cover(m) : **1.6**)				
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		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	500			
Scour Protection		8	8	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		8	N	Snow covered.
Beavers (Y/N)	No			
Upstream End General Rating		**8**	**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		8	8	Rise at S end=1965=35mm=1.8%
Measured Rise (mm)	1965			
Measured At Ring No.				
Sag (mm)	35			1.8%
Percent Sag	2			
Sidewall		8	7	Span at S end=2035=35mm Span at Midpipe=2055=55mm=2.8% Span at N end=1995=5mm
Measured Span (mm)	2055			
Measured At Ring No.				
Deflection (mm)	55			2.8%
Percent Deflection	3			
Floor		8	N	Dirt on floor.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		8	8	
Separation (mm)	30			
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		8	7	
Corrosion By Soil (Y/N)	No			On floor at S end of pipe (minor).
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): 2000, Type: MP**)				
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		8	8	
Icing (Y/N)	No			
Silting (Y/N)	Yes			Length of pipe.
Drift (Y/N)	No			
Barrel General Rating		**8**	**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		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	500			
Scour Protection		8	8	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		8	N	Snow covered.
Beavers (Y/N)	No			
Downstream End General Rating		**8**	**8**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		5	5	Channel bends at 90 degree at D/S end.
Bank Stability		6	6	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				Unknown
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**5**	**5**	

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) (%)	**88.9/77.8**	**Sufficiency Rating (Last/Now) (%)**	**85.0/79.2**	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)					
Proposed Action					

Previous Inspector's Name	Dave Lam	Previous Assistant's Name	
Next Inspection Date	22-Feb-2015	Previous Inspection Date	29-May-2005
Inspection Cycle (Default) (months)	39		
Comment			