

Bridge Culvert Inspection			
Bridge File Number	07504 -1 Bridge Culvert	Form Type	CUL1
Year Built	1978	Lot No.	4
Bridge or Town Name	RED DEER	Inspector Name	Jason Saly
Located Over	TRIBUTARY TO RED DEER RIVER, 3.75, WATERCRS-ST	Inspector Class	BR CLS A
Located On	11:14 C1 6.490	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	14-Feb-2012
Legal Land Location	NE SEC 15 TWP 38 RGE 26 W4M	Data Entry By	Marcia Chavez
Longitude, Latitude	-113:37:28, 52:16:12	Data Entry Date	08-Mar-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	CMA19	Review Date	29-Feb-2012
Clear Roadway/Skew	11.8 / -10 deg. (LHF)	Dept. Reviewer Name	Andrew Smikles
AADT/Year	3,850 / 2010 (A)	Dept. Review Date	09-Mar-2012
Road Classification	RAU-211.8-110	Follow-Up By	
Detour Length (km)	10		

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	42.1	152X51	3.0	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	North r/w. Crosses road 100m East.	Gas	
Power	Crosses under road 100m East.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

	Last	Now	Explanation of Condition
Horizontal Alignment	6	6	Horizontal curve in superelevation. Bottom of sag, limited sight distance both directions. No passing both directions.
Vertical Alignment	6	6	
Roadway Width (m)	11.800		
Embankment	5	5	Wide transverse ACP crack West of pipe, sealed. Minor gully @ NW ditch. Filled with Class 1m rock.
Sideslope (__:1)	3.0		
(Height of Cover(m) : 4.5)			
Guardrail (Y/N)	Yes		
Approach Road / Embankment General Rating	6	6	

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		5	5	Bevel sides are buckled inward from construction.
Heaving (mm)	200			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	500			
Scour Protection		6	6	Appears excess concrete waste, was just scattered around pipe, no form work.
(Type : CONCRETE)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		6	6	Old silt fence across inlet sideslope.
Beavers (Y/N)	No			
Upstream End General Rating		5	5	
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	14-Feb-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	Could not measure rise due to ice. (30Mar2010)
Measured Rise (mm)	1882			
Measured At Ring No.	7			
Sag (mm)	19			
Percent Sag	1			
Sidewall		7	7	Span at R7=1718=6mm Span at R9=1707=17mm=1.0% Span at R11=1738=14mm
Measured Span (mm)	1707			
Measured At Ring No.	9			
Deflection (mm)	17			
Percent Deflection	1			
Floor		6	N	(Some superficial corrosion. 30Mar2010) - Ice covered.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	6	Isolated bolts too short, not fully engaged.
Separation (mm)	0			
Longitudinal Seams		6	6	Last 4 rings (N) ~3.7m in length; all others ~2.45m. 1N
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)	Yes			
Coating		6	6	Minor superficial rust stains. Soil through bottom seams.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			

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)				
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	Yes			(Silting @ D/S end of barrel. 30Mar2010).
Drift (Y/N)	No			
Barrel General Rating		6	6	
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		6	6	Minor buckling under West concrete.
Heaving (mm)	50			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		5	5	Appears concrete was not formed over pipe, cracking and breaking up.
(Type : CONCRETE)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		5	5	
Beavers (Y/N)	No			
Downstream End General Rating		5	5	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		7	7	CSP under old road 20m U/S, inline.
Bank Stability		7	7	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	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) (%)	66.7/66.7	Sufficiency Rating (Last/Now) (%)	64.0/64.0	Est. Repl. Yr	2029	Maint. Req. (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	Owen Salava		Previous Assistant's Name	Chris Black			
Next Inspection Date	14-Nov-2013		Previous Inspection Date	30-Mar-2010			
Inspection Cycle (Default) (months)	21						
Comment							