

Bridge Culvert Inspection				
Bridge File Number	02458 -1 Bridge Culvert		Form Type	CUL1
Year Built	2001		Lot No.	3
Bridge or Town Name	RED DEER		Inspector Name	Jason Saly
Located Over	TRIBUTARY TO PIPER CREEK, 3.81.1.2, WATERCRS-ST		Inspector Class	BR CLS A
Located On	595:02 C1 3.574		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	22-Nov-2011
Legal Land Location	SW SEC 5 TWP 38 RGE 26 W4M		Data Entry By	Marcia Chavez
Longitude, Latitude	-113:41:25, 52:13:49		Data Entry Date	21-Dec-2011
Road Authority	Alberta Transportation (AIT)		Reviewer Name	John O'Brien
Contract Main. Area	CMA19		Review Date	15-Dec-2011
Clear Roadway/Skew	12.1 /		Dept. Reviewer Name	Andrew Smikles
AADT/Year	3,080 / 2010 (A)		Dept. Review Date	09-Jan-2012
Road Classification	RCU-211.0-110		Follow-Up By	
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	-	2200	MP	48	125X26	2.8	ROUND
Special Features								
Special Features Comment								

**Utilities (Located at)**

Utility Attachments			
Telephone	In South ditch.	Gas	200m West.
Power	3 wire OH in North r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks			

**Approach Road / Embankment**

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Typical farm approaches East & West of structure. In bottom of long gradual sag - good sight distance.
Vertical Alignment		7	7	
Roadway Width (m)	12.100			
Embankment		7	7	
Sideslope ( __:1)	3.0			
(Height of Cover(m) : 1.8)				
Guardrail (Y/N)	No			
<b>Approach Road / Embankment General Rating</b>		<b>7</b>	<b>7</b>	

**Upstream 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	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		8	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		8	7	
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>300</b> )				
Scour/Erosion		8	N	Snow covered.
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>8</b>	<b>7</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2200, Type: MP)				
Barrel Last Accessible Date	22-Nov-2011			
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		8	8	Could not measure rise due to ice on floor.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	30			
Percent Sag				
Sidewall		8	8	Span at S end=2165=35 Span at Midpipe=2235=35=1.6% Span at N End=2205=5
Measured Span (mm)	2235			
Measured At Ring No.				
Deflection (mm)	35			1.6%
Percent Deflection	2			
Floor		8	N	(Minor dents due to rocks impacting steel during compaction - no problem. 29May2005). Snow covered.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		8	8	
Separation (mm)	40			
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	Water stains.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
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): 2200, Type: MP)				
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type : )				
Waterway Adequacy		8	8	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>8</b>	<b>8</b>	
Downstream 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	
Bevel End		8	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			Perch bevel 400mm from bevel to top of ice (photo).
Above/Below (mm)	600			
Scour Protection		8	3	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		8	3	Scour both sides of bevel; worst case E side 4m x 4m (photos).
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>8</b>	<b>3</b>	
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)				HWM unknown.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				Unknown.
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
<b>Channel General Rating</b>		<b>7</b>	<b>7</b>	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
SHOTCRETE REPAIRS							
PLACE ADDITIONAL RIP RAP	2012	Re-armour S end of pipe ~40m3.					
REMOVE DRIFT ACCUMULATION							
INSTALL CONCRETE/STEEL LINING							
INSTALL STRUTS							
INSTALL CONCRETE COLLAR/CUTOFF							
REPAIR SEAMS							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>88.9/88.9</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>86.5/79.9</b>	Est. Repl. Yr	2050	Maint. Req. (Y/N)	Yes
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							