

Bridge Culvert Inspection			
Bridge File Number	72818 -1 Bridge Culvert	Form Type	CUL1
Year Built	1986	Lot No.	3
Bridge or Town Name	DRUMHELLER	Inspector Name	Owen Salava
Located Over	TRIBUTARY TO RED DEER RIVER, 3.44, WATERCRS-ST	Inspector Class	BR CLS A
Located On	575:04 C1 30.870	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	26-Jan-2011
Legal Land Location	SW SEC 18 TWP 29 RGE 20 W4M	Data Entry By	Marcia Chavez
Longitude, Latitude	-112:48:55, 51:28:47	Data Entry Date	04-Mar-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	CMA21	Review Date	03-Feb-2011
Clear Roadway/Skew	10.1 / 25 deg. (RHF)	Dept. Reviewer Name	Chris Black
AADT/Year	1,240 / 2009 (A)	Dept. Review Date	06-Mar-2011
Road Classification	RCU-209-110	Follow-Up By	
Detour Length (km)	46		

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	2400	SP	37.2	152X51	3.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

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

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Located in two curves. Field entrance 20m W.
Vertical Alignment		8	8	
Roadway Width (m)	10.100			
Embankment		6	6	(Tension crack 1/2 way down N slope above culvert. 27Feb2008).
Sideslope (__:1)	3.0			
(Height of Cover(m) : 2)				
Guardrail (Y/N)	Yes			N side, part of road barrier.
Approach Road / Embankment General Rating		6	6	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		S		SW
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	6	Minor deformation, left bevel.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	150			
Scour Protection		7	N	Snow covered.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 200)				
Scour/Erosion		7	N	(Silt fences torn, fresh grading washes into pipe. 22Feb2008).
Beavers (Y/N)	No			
Upstream End General Rating		7	6	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1 , Primary Span, Location Code: MAIN , Span (mm): , Rise (mm): 2400 , Type: SP)				
Barrel Last Accessible Date	26-Jan-2011			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	
Measured Rise (mm)	2390			
Measured At Ring No.	4			
Sag (mm)	10			
Percent Sag	0			
Sidewall		6	6	
Measured Span (mm)	2490			
Measured At Ring No.	5			
Deflection (mm)	90			3.8%
Percent Deflection	4			
Floor		N	5	Silt/rock covered R5-9, max. 250mm deep.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		8	8	
Separation (mm)	0			
Longitudinal Seams		8	8	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		7	7	Some alkaline on bolts.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
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): 2400, Type: SP)				
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		4	5	
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		6	6	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		N		NE
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		7	7	Dirt with grass & brush on outlet floor (photo).
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			1.0m drops short distance D/S to join Red Deer River.
Above/Below (mm)	1000			
Scour Protection		4	N	(Erosion on NE corner - photo. 27Feb2008). Snow covered.
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		4	N	Snow covered.
Beavers (Y/N)	No			
Downstream End General Rating		4	4	GR carried forward from 27Feb2008.
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		4	4	Steep banks u/s & d/s.
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	AGGRADING			Approx 600mm depth of silting @ outlet.
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		4	4	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
SHOTCRETE REPAIRS							
PLACE ADDITIONAL RIP RAP	2011	Place 15CMS Class 1 riprap on D/S, if not yet done.					
REMOVE DRIFT ACCUMULATION							
INSTALL CONCRETE/STEEL LINING							
INSTALL STRUTS							
INSTALL CONCRETE COLLAR/CUTOFF							
REPAIR SEAMS							
OTHER ACTION	2011	Clear dirt/brush from inside outlet.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	66.7/66.7	Sufficiency Rating (Last/Now) (%)	53.6/55.9	Est. Repl. Yr	2035	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	Bryan Wai		Previous Assistant's Name				
Next Inspection Date	26-Apr-2014		Previous Inspection Date	27-Feb-2008			
Inspection Cycle (Default) (months)	39						
Comment							