

Bridge Culvert Inspection				
Bridge File Number	76234 -1 Bridge Culvert		Form Type	CUL1
Year Built	1984		Lot No.	4
Bridge or Town Name	CARDSTON		Inspector Name	Jon Davies
Located Over	TRAIL-ANIMAL, OVER SP		Inspector Class	BR CLS B
Located On	2:04 C1 6.809		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	12-Oct-2011
Legal Land Location	SE SEC 4 TWP 4 RGE 25 W4M		Data Entry By	Erin Roberts
Longitude, Latitude	-113:17:51, 49:15:45		Data Entry Date	19-Nov-2011
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Garry Roberts
Contract Main. Area	CMA25		Review Date	08-Nov-2011
Clear Roadway/Skew	11.4 /		Dept. Reviewer Name	Tim Davies
AADT/Year	2,460 / 2010 (A)		Dept. Review Date	21-Nov-2011
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	PI./Slab Thickness	Shape
1	MAIN	-	2200	MP	30	125X26		ROUND
Special Features								
Special Features Comment								

Posting Information											
Required Vert. Clearance Posting (m)											
Posted Vertical Clearance (Y/N)											
Posted:	Lane	NB	On Bridge (m)		In Advance (Y/N)		Lane	SB	On Bridge (m)		In Advance (Y/N)
Remarks	Not req.										

Utilities (Located at)				
Utility Attachments				
Telephone	West ditch		Gas	100 m SOUTH
Power	1 wire East		Municipal	
Others	Fiber Optic line West ditch		Problem (Y/N)	No
Remarks				

Approach Road / Embankment				
		Last	Now	Explanation of Condition
Horizontal Alignment		9	9	
Vertical Alignment		9	9	
Roadway Width (m)	11.400			
Embankment		7	6	900mm CSP 10m South 1:1 over West end of pipe with minor erosion
Sideslope (___:1)	3.5			
(Height of Cover(m) : 1.3)				
Guardrail (Y/N)	Yes			Guardrail from top of shoulder - 3m down embank - both sides
Approach Road / Embankment General Rating		9	9	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		W		West side
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Wingwalls (Shape :)		X	X	
Cutoff Wall		X	X	
Bevel End		6	6	Notched bevel.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection (Type : NATURAL) (Avg. Rock Size(mm) :)		6	6	
Scour/Erosion		6	6	
Beavers (Y/N)	No			
Upstream End General Rating		6	6	
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	12-Oct-2011			
Special Features				
Special Feature (Type :)				
Special Feature (Type :)				
Roof		5	5	Spot welding scars at roof and floor.
Measured Rise (mm)	2078			
Measured At Ring No.	2			
Sag (mm)	122			
Percent Sag	9			
Sidewall		5	5	Some 10mm holes at these welded areas at roof and floor in the 2nd ring.
Measured Span (mm)	2320			
Measured At Ring No.	2			
Deflection (mm)	120			
Percent Deflection	5			
Floor		N	N	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		5	5	50mm horizontal separation. 70mm vertical separation 2 locations.
Separation (mm)	70			
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		5	5	Spot welding scars have superficial corrosion. Superficial rust at u/s bevel & crown and at haunch area. Dug to water.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2200, Type: MP)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		X	7	Handles drainage.
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		5	5	

Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		E		East end.
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	Notch cut out of bevel.
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	200			
Scour Protection		6	4	Not adequate. Required at invert.
(Type : NATURAL)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		6	4	3m long x 2m wide x 1m deep scour hole at D/S invert
Beavers (Y/N)	No			
Downstream End General Rating		6	4	

Structure Usage				
		Last	Now	Explanation of Condition
Grade Separation				
Road Alignment		X	X	Bare floor, poor for cattle use.
Roadway Surface		5	4	
(Type :)				
Icing (Y/N)	No			
Traffic Safety Features		X	X	
Type				
Lighting		X	X	
Barrel Leakage (Y/N)	No			

Structure Usage				
		Last	Now	Explanation of Condition
Drainage		5	5	
Structure In Use (Y/N)	No			Fence to barrel in disrepair.
Grade Separation General Rating		5	4	

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) (%)	55.6/55.6	Sufficiency Rating (Last/Now) (%)	66.3/57.9	Est. Repl. Yr	2030	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	Garry Roberts		Previous Assistant's Name				
Next Inspection Date	12-Jul-2013		Previous Inspection Date	21-Jan-2010			
Inspection Cycle (Default) (months)	21						
Comment							