

Bridge Culvert Inspection				
Bridge File Number	77386 -1 Bridge Culvert		Form Type	CUL1
Year Built	1971		Lot No.	2
Bridge or Town Name	CZAR		Inspector Name	Jason Saly
Located Over	TRAIL-ANIMAL, OVER SP		Inspector Class	BR CLS A
Located On	41:14 C1 50.959		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	27-Nov-2012
Legal Land Location	SE SEC 9 TWP 40 RGE 6 W4M		Data Entry By	Marcia Chavez
Longitude, Latitude	-110:48:21, 52:25:20		Data Entry Date	15-Jan-2013
Road Authority	Alberta Transportation (AIT)		Reviewer Name	John O'Brien
Contract Main. Area	CMA22		Review Date	14-Dec-2012
Clear Roadway/Skew	11.4 /		Dept. Reviewer Name	Andrew Smikles
AADT/Year	850 / 2011 (A)		Dept. Review Date	17-Jan-2013
Road Classification	RAU-211.8-110		Follow-Up By	
Detour Length (km)	4			

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	PI./Slab Thickness	Shape
1	MAIN	2082	2311	SPE	28	152X51	3.5	ELLIPSE
Special Features								
Special Features Comment								

Posting Information

Required Vert. Clearance Posting (m)											
Posted Vertical Clearance (Y/N)	No										
Posted:	Lane	WB	On Bridge (m)		In Advance (Y/N)		Lane	EB	On Bridge (m)		In Advance (Y/N)
Remarks	Not required. Cattlepass.										

Utilities (Located at)

Utility Attachments											
Telephone	West r/w, and crossing road 50m North.					Gas					
Power	4 o/h lines, E fence line.					Municipal					
Others						Problem (Y/N)	No				
Remarks											

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Intersection 35m North of pipe. Crest curve to the North with limited sight distance. No passing NB.
Vertical Alignment		5	5	
Roadway Width (m)	11.400			
Embankment		N	N	Snow covered.
Sideslope (___:1)	3.0			
(Height of Cover(m) : 1.2)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		5	5	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		W		
End Treatment (Concrete, Steel, Others, None)	NONE			
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		X	X	Squared end.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	250			
Scour Protection (Type : RIP RAP) (Avg. Rock Size(mm) : 300)		N	N	Snow covered.
Scour/Erosion		N	X	
Beavers (Y/N)	No			
Upstream End General Rating		7	N	Previous rating was 7 from 17Aug2009.
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2082, Rise (mm): 2311, Type: SPE)				
Barrel Last Accessible Date	27-Nov-2012			
Special Features				
Special Feature (Type :)				
Special Feature (Type :)				
Roof		6	5	Could not measure rise due to dirt & concrete on floor. Minor perforation in roof of R2. Puncture in R2, mower damage with tears near E end. Estimated.
Measured Rise (mm)	2196			
Measured At Ring No.				
Sag (mm)	115			
Percent Sag	5			
Sidewall		6	6	Span at R2=1999=85mm=4.1% Span at R4=2011=71mm Span at R6=2017=65mm Deflection inwards. 4.1%
Measured Span (mm)	1997			
Measured At Ring No.	6			
Deflection (mm)	85			
Percent Deflection	4			
Floor		N	N	Dirt covered.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		7	7	
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)	No			
Longitudinal Stagger (Y/N)	No			
Coating		5	3	Minor superficial rust on exterior roof plates. Some visible R2 minor perforations through roof, no action.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2082, Rise (mm): 2311, Type: SPE)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		X	X	
Icing (Y/N)	No			
Siltng (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		6	5	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		E		
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	X	Squared end.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	250			
Scour Protection		N	N	Snow covered.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		N	X	
Beavers (Y/N)	No			
Downstream End General Rating		7	N	GR was 7 from 17Aug2009.
Structure Usage				
		Last	Now	Explanation of Condition
Grade Separation				
Road Alignment		8	8	Dirt covered.
Roadway Surface		N	N	
(Type : CONCRETE)				
Icing (Y/N)	No			
Traffic Safety Features		X	X	
Type	NONE			
Lighting		X	X	
Barrel Leakage (Y/N)	No			

Structure Usage				
		Last	Now	Explanation of Condition
Drainage		7	7	
Structure In Use (Y/N)	Yes			
Grade Separation 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	2015	Consider cathodic protection.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	66.7/55.6	Sufficiency Rating (Last/Now) (%)	77.6/68.8	Est. Repl. Yr	2034	Maint. Req. (Y/N)	No
Special Comments for Next Inspection	Monitor corrosion, maybe mark or count perforations to see what changes.		Department Comments				
Maintenance Reviewed By			Date			Estimated Total	0
Proposed Long-Term Strategy							
On 3-Year Program (Y/N)	N						
Proposed Action	2007.05.19 Check site again in two years to determine continued usage.						
Previous Inspector's Name	Jason Saly		Previous Assistant's Name				
Next Inspection Date	27-Aug-2014		Previous Inspection Date	08-Mar-2011			
Inspection Cycle (Default) (months)	21						
Comment							