

Bridge Culvert Inspection				
Bridge File Number	76229 -1 Bridge Culvert		Form Type	CUL1
Year Built	1966		Lot No.	4
Bridge or Town Name	VERMILION		Inspector Name	Jason Saly
Located Over	TRAIL-ANIMAL, OVER SP		Inspector Class	BR CLS A
Located On	41:18 C1 33.512		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	28-Nov-2012
Legal Land Location	NW SEC 7 TWP 48 RGE 6 W4M		Data Entry By	Marcia Chavez
Longitude, Latitude	-110:52:57, 53:07:51		Data Entry Date	15-Jan-2013
Road Authority	Alberta Transportation (AIT)		Reviewer Name	John O'Brien
Contract Main. Area	CMA15		Review Date	14-Dec-2012
Clear Roadway/Skew	11.8 /		Dept. Reviewer Name	Andrew Smikles
AADT/Year	1,140 / 2011 (A)		Dept. Review Date	17-Jan-2013
Road Classification	RAU-211.8-110		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	1778	2286	RPE	24.4	152X51	3.5	ELLIPSE
Special Features								
Special Features Comment								

**Posting Information**

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

**Utilities (Located at)**

Utility Attachments											
Telephone	West r/w.					Gas					
Power	3 wires OH, E fence line.					Municipal					
Others						Problem (Y/N)		No			
Remarks											

**Approach Road / Embankment**

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Field access 75m North. Local access 75m NW. Crest curves to South.
Vertical Alignment		7	7	
Roadway Width (m)	11.800			
Embankment		N	N	Snow covered.
Sideslope (___:1)	3.0			
(Height of Cover(m) : 1)				
Guardrail (Y/N)	Yes			SE end creased but functional.
<b>Approach Road / Embankment General Rating</b>		<b>7</b>	<b>7</b>	

**Upstream End**

Culvert Component		Last	Now	Explanation of Condition
Direction		E		
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)	200			
Scour Protection (Type : RIP RAP) (Avg. Rock Size(mm) : 250)		N	N	(Almost vertical beside end of barrel. 16Aug2009). Snow covered.
Scour/Erosion		N	N	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>N</b>	<b>N</b>	GR was 7 from 16Aug2009.
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1778, Rise (mm): 2286, Type: RPE)				
Barrel Last Accessible Date	28-Nov-2012			
<b>Special Features</b>				
Special Feature (Type : )				
Special Feature (Type : )				
Roof		6	6	Could not take measurements due to dirt on floor.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				Estimated.
Percent Sag	1			
Sidewall		6	5	2 holes on N sidewall, minor. 1 hole on S sidewall, minor. 80mm x 60mm.
Measured Span (mm)	1770			Span at R2=1770=8mm=0.5%
Measured At Ring No.	2			Span at R5=1784=6mm
Deflection (mm)	8			Span at R8=1772=6mm
Percent Deflection	1			0.5%
Floor		N	N	(Covered with dirt, concrete floor. 16Aug2009).
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		6	5	Bolts dimpling crests along lower seam. Upper seam N side, R2, 2 bolts pulling through.
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		6	6	
Corrosion By Soil (Y/N)	No			
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): 1778, Rise (mm): 2286, Type: RPE)				
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			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>6</b>	<b>5</b>	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		W		
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)	200			
Scour Protection		N	N	(Almost vertical beside end of barrel. 16Aug2009). Snow covered.
(Type : )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		N	N	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>N</b>	<b>N</b>	GR was 7 from 16Aug2009.
Structure Usage				
		Last	Now	Explanation of Condition
<b>Grade Separation</b>				
Road Alignment		8	8	Dirt covered.
Roadway Surface		N	N	
(Type : <b>CONCRETE</b> )				
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		N	N	(Ponds up to 50mm. 16Aug2009).
Structure In Use (Y/N)	Yes			
<b>Grade Separation General Rating</b>		<b>6</b>	<b>6</b>	GR carried forward since 16Aug2009 based on drainage rating.

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							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>66.7/55.6</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>72.8/67.9</b>	Est. Repl. Yr	2034	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)	Y						
Proposed Action	2008.02.29 Review in two years time for continued usage. Brownlee & Associates						
Previous Inspector's Name	Jason Saly		Previous Assistant's Name				
Next Inspection Date	28-Aug-2014		Previous Inspection Date	07-Mar-2011			
Inspection Cycle (Default) (months)	21						
Comment							