

Bridge Culvert Inspection				
Bridge File Number	77346 -1 Bridge Culvert		Form Type	CULE
Year Built	1971		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	16:28 R1 33.390;16:28 L1 33.387		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	18-Jul-2012
Legal Land Location	SW SEC 30 TWP 50 RGE 6 W4M		Data Entry By	Marcia Chavez
Longitude, Latitude	-110:52:58, 53:20:10		Data Entry Date	09-Aug-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	John O'Brien
Contract Main. Area	CMA15		Review Date	28-Jul-2012
Clear Roadway/Skew	26 / 40 deg. (RHF)		Dept. Reviewer Name	Andrew Smikles
AADT/Year	6,970 / 2011 (A)		Dept. Review Date	13-Aug-2012
Road Classification	RFD-412.4-130		Follow-Up By	
Detour Length (km)	1			

Bridge Culvert Information								
Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	1727	2108	RPP	43.6	152X51	3.0	PIPE ARCH
1	D/S	-	2400	MP	49.4	125X26	2.8	ROUND
Special Features								
Special Features Comment								

Posting Information										
Required Vert. Clearance Posting (m)										
Posted Vertical Clearance (Y/N)			No							
Posted:	Lane	NB	On Bridge (m)		In Advance (Y/N)		Lane	SB	On Bridge (m)	In Advance (Y/N)
Remarks	Not required.									

Utilities (Located at)			
Utility Attachments			
Telephone	North r/w		Gas
Power	2 wires North row, 5 line crosses OH.		Municipal
Others			Problem (Y/N) No
Remarks			

Approach Road / Embankment				
		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Crosses diagonally under Hwy16 NW to SE at local road intersection (RR70).
Vertical Alignment		8	7	
Roadway Width (m)	26.000			
Embankment		7	7	2:1 over pipe.
Sideslope (___:1)	6.0			
(Height of Cover(m) : 2.6)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		7	7	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		N		(NW)
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
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	7	Well vegetated.
(Type : NATURAL)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	7	
Beavers (Y/N)	No			
Upstream End General Rating		7	7	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1727, Rise (mm): 2108, Type: RPP)				
Barrel Last Accessible Date	18-Jul-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	7	Unable to measure due to dirt.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		8	7	Span at R2=1699=28mm=1.6% Span at R6=1748=21mm Span at R10=1729=2mm
Measured Span (mm)	1699			
Measured At Ring No.	2			
Deflection (mm)	28			1.6% inwards.
Percent Deflection	2			
Floor		N	N	Dirt covered.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		8	7	Concrete filled @ extension end to old pipe - good condition.
Separation (mm)	30			
Longitudinal Seams		X	6	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1727, Rise (mm): 2108, Type: RPP)				
Coating		8	7	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
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			
Barrel General Rating		8	6	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: D/S, Span (mm): , Rise (mm): 2400, Type: MP)				
Barrel Last Accessible Date	18-Jul-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	7	Unable to measure due to dirt.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag	2			
Sidewall		8	7	Span at S end=2378=22mm Span at midpipe=2340=60mm=2.5% Span at N end=2356=44mm
Measured Span (mm)	2340			
Measured At Ring No.				
Deflection (mm)	60			2.5%
Percent Deflection	3			
Floor		N	N	Dirt covered.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		8	8	Concrete filled @ extension end to old pipe - good condition.
Separation (mm)	30			
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)				

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: D/S, Span (mm): , Rise (mm): 2400, Type: MP)				
Coating		8	8	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
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			
Barrel Extension General Rating		8	7	

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		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		N	7	
(Type : NATURAL)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	7	
Beavers (Y/N)	No			
Downstream End General Rating		7	7	

Structure Usage				
		Last	Now	Explanation of Condition
Grade Separation				
Road Alignment		8	8	Dirt covered.
Roadway Surface		8	8	
(Type : CONCRETE)				
Icing (Y/N)	No			
Traffic Safety Features		X	X	
Type				

Structure Usage				
		Last	Now	Explanation of Condition
Lighting		X	X	
Barrel Leakage (Y/N)	No			
Drainage		8	8	
Structure In Use (Y/N)	Yes			
Grade Separation General Rating		8	8	

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) (%)	88.9/66.7	Sufficiency Rating (Last/Now) (%)	89.3/78.3	Est. Repl. Yr	2044	Maint. Reqd. (Y/N)	No
Special Comments for Next Inspection			Department Comments				
Maintenance Reviewed By			Date			Estimated Total	0
Proposed Long-Term Strategy	2005.01.18 Existing livestock underpass is in good condition & should be ok until 2040. Proposed overlay consultant should review the warrants for guardrail.						
On 3-Year Program (Y/N)	Y						
Proposed Action	2007.12.29 Check for safety in respect to lack of guardrails. Brownlee & Associates						
Previous Inspector's Name	Owen Salava		Previous Assistant's Name				
Next Inspection Date	18-Apr-2014		Previous Inspection Date	17-Dec-2010			
Inspection Cycle (Default) (months)	21						
Comment							