

Bridge Culvert Inspection				
Bridge File Number	76631 -1 Bridge Culvert		Form Type	CUL1
Year Built	1967		Lot No.	4
Bridge or Town Name	EMPRESS		Inspector Name	Owen Salava
Located Over	TRAIL-ANIMAL, OVER SP		Inspector Class	BR CLS A
Located On	41:10 C1 3.639		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	18-Jul-2012
Legal Land Location	NE SEC 1 TWP 23 RGE 2 W4M		Data Entry By	Marcia Chavez
Longitude, Latitude	-110:08:54, 50:55:54		Data Entry Date	02-Aug-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	John O'Brien
Contract Main. Area	CMA22		Review Date	31-Jul-2012
Clear Roadway/Skew	10.6 /		Dept. Reviewer Name	Andrew Smikles
AADT/Year	500 / 2011 (A)		Dept. Review Date	07-Aug-2012
Road Classification	RAU-210-110		Follow-Up By	
Detour Length (km)	20			

**Bridge Culvert Information**

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	PI./Slab Thickness	Shape
1	MAIN	1742	1920	MPE	30.5	68X13	3.5	ELLIPSE
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)	No	Lane	SB	On Bridge (m)		In Advance (Y/N)	No
Remarks	Not required.											

**Utilities (Located at)**

Utility Attachments												
Telephone						Gas						
Power	4 wire 200m East.					Municipal						
Others						Problem (Y/N)	No					
Remarks												

**Approach Road / Embankment**

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	On curve. No passing NB. Crest curve 100m South on BR 75701.
Vertical Alignment		6	6	
Roadway Width (m)	10.600			
Embankment		7	7	
Sideslope (___:1)	3.0			
(Height of Cover(m) : 2)				
Guardrail (Y/N)	Yes			
<b>Approach Road / Embankment General Rating</b>		<b>6</b>	<b>6</b>	

**Upstream End**

Culvert Component		Last	Now	Explanation of Condition
Direction		W		
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		7	7	
Heaving (mm)	80			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection (Type : <b>RIP RAP</b> ) (Avg. Rock Size(mm) : <b>150</b> )		7	7	
Scour/Erosion		7	7	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>7</b>	<b>7</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1742, Rise (mm): 1920, Type: MPE)				
Barrel Last Accessible Date	18-Jul-2012			
<b>Special Features</b>				
Special Feature (Type : )				
Special Feature (Type : )				
Roof		4	4	Could not measure due to dirt & ice on floor.
Measured Rise (mm)				Estimated. 7.2%
Measured At Ring No.				
Sag (mm)	140			
Percent Sag	7			
Sidewall		4	4	7.6%
Measured Span (mm)	1875			
Measured At Ring No.	2			
Deflection (mm)	133			
Percent Deflection	8			
Floor		N	N	Dirt covered.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	6	
Separation (mm)	80			
Longitudinal Seams		7	7	Riveted.
Total No. of Cracked Rings	0			
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	Superficial rust on floor surface.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1742, Rise (mm): 1920, Type: MPE)</b>				
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			
<b>Barrel General Rating</b>		<b>4</b>	<b>4</b>	

Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		E		
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)	100			
Scour Protection		7	7	
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>150</b> )				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>7</b>	<b>7</b>	

Structure Usage				
		Last	Now	Explanation of Condition
<b>Grade Separation</b>				
Road Alignment		7	7	
Roadway Surface		7	7	
(Type : <b>SOIL</b> )				
Icing (Y/N)	No			
Traffic Safety Features		X	X	
Type	None			
Lighting		X	X	
Barrel Leakage (Y/N)	Yes			

<b>Structure Usage</b>				
		<b>Last</b>	<b>Now</b>	<b>Explanation of Condition</b>
Drainage		6	6	
Structure In Use (Y/N)	Yes			
<b>Grade Separation General Rating</b>		<b>7</b>	<b>6</b>	

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>44.4/44.4</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>66.7/66.2</b>	Est. Repl. Yr	2024	Maint. Req. (Y/N)	No
Special Comments for Next Inspection	Site still in use; continue inspection.		Department Comments				
Maintenance Reviewed By			Date			Estimated Total	0
Proposed Long-Term Strategy	2004.05.30 Monitor on normal BIM. Culvert should be ok until 2017.						
On 3-Year Program (Y/N)	N						
Proposed Action	2007.05.21 Revisit site again in two years to determine continued usage.						
Previous Inspector's Name	Jason Saly		Previous Assistant's Name				
Next Inspection Date	18-Apr-2014		Previous Inspection Date	30-Mar-2011			
Inspection Cycle (Default) (months)	21						
Comment							