

Bridge Culvert Inspection				
Bridge File Number	75184 -1 Bridge Culvert		Form Type	CUL1
Year Built	1959		Lot No.	1
Bridge or Town Name	DUCHESS		Inspector Name	Owen Salava
Located Over	TRAIL-ANIMAL, OVER SP		Inspector Class	BR CLS A
Located On	36:08 C1 32.891		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	17-Jul-2012
Legal Land Location	SE SEC 4 TWP 23 RGE 14 W4M		Data Entry By	Marcia Chavez
Longitude, Latitude	-111:53:46, 50:55:22		Data Entry Date	02-Aug-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	John O'Brien
Contract Main. Area	CMA23		Review Date	31-Jul-2012
Clear Roadway/Skew	10.1 /		Dept. Reviewer Name	Andrew Smikles
AADT/Year	1,070 / 2011 (A)		Dept. Review Date	07-Aug-2012
Road Classification	RAU-213.4-120		Follow-Up By	
Detour Length (km)	40			

Bridge Culvert Information								
Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	PI./Slab Thickness	Shape
1	MAIN	1724	1901	SPE	27.4	152X51	3.0	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)	No	Lane	SB	On Bridge (m)		In Advance (Y/N)	No
Remarks	Not required.											

Utilities (Located at)				
Utility Attachments				
Telephone	East ditch.		Gas	Gas line W ditch and x-ing 15m S
Power			Municipal	
Others	Fibre Optics E R/W		Problem (Y/N)	No
Remarks				

Approach Road / Embankment				
		Last	Now	Explanation of Condition
Horizontal Alignment		5	5	Curves down to the bridge on both ends. No passing. Superelevated.
Vertical Alignment		5	5	
Roadway Width (m)	10.100			
Embankment		7	7	
Sideslope ( __:1)	2.5			
(Height of Cover(m) : 1.1)				
Guardrail (Y/N)	No			
<b>Approach Road / Embankment General Rating</b>		<b>5</b>	<b>5</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		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)	50			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		6	6	Does not take flow.
(Type : <b>NATURAL</b> )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>6</b>	<b>6</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1724, Rise (mm): 1901, Type: SPE)				
Barrel Last Accessible Date	17-Jul-2012			(Measured 1760 x 1860 near c/l. 21Sep2008).
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		3	3	R3,4 & 5 have some perforations along roof. Getting close to being extensive.
Measured Rise (mm)	1860			
Measured At Ring No.	5			
Sag (mm)	41			
Percent Sag	2			
Sidewall		3	3	R3 has some perfs in S sidewall.
Measured Span (mm)	1763			
Measured At Ring No.	4			
Deflection (mm)	39			
Percent Deflection	2			
Floor		N	6	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	6	
Separation (mm)	0			
Longitudinal Seams		6	6	2% of bolts appear not torqued.
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)				1N.
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		3	3	Minor superficial rust @ bolts. Some perforations in roof plates R3-5. Largest perforation 60mm dia.
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): 1724, Rise (mm): 1901, 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			
<b>Barrel General Rating</b>		<b>3</b>	<b>3</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				
Above/Below (mm)	0			
Scour Protection		6	6	
(Type : <b>NATURAL</b> )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>7</b>	<b>6</b>	

Structure Usage				
		Last	Now	Explanation of Condition
<b>Grade Separation</b>				
Road Alignment		8	8	(Ponds @ W end. 03/01/15). Just corrugations for floor.
Roadway Surface		N	7	
(Type : )				
Icing (Y/N)	No			
Traffic Safety Features		X	X	
Type				
Lighting		X	X	
Barrel Leakage (Y/N)	No			

<b>Structure Usage</b>				
		<b>Last</b>	<b>Now</b>	<b>Explanation of Condition</b>
Drainage		6	6	
Structure In Use (Y/N)	No			Not fenced to entrances. No signs of any use.
<b>Grade Separation General Rating</b>		<b>8</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>33.3/33.3</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>59.1/56.7</b>	<b>Est. Repl. Yr</b>	<b>2020</b>	<b>Maint. Req. (Y/N)</b>	<b>No</b>			
Special Comments for Next Inspection	Not used as cattlepass; remove at earliest convenience - (AT have applied to remove cattlepass when feasible. 17Aug2007). Fill with low strength flowable material & granular is an option.,		Department Comments							
Maintenance Reviewed By		Date			Estimated Total	0				
Proposed Long-Term Strategy	2007.08.17 Have signed Cattlepass removal form. remove and remediate when feasible by department.									
On 3-Year Program (Y/N)										
Proposed Action										
Previous Inspector's Name	Jason Saly	Previous Assistant's Name								
Next Inspection Date	17-Apr-2014	Previous Inspection Date	31-Mar-2011							
Inspection Cycle (Default) (months)	21									
Comment										

**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>33.3/33.3</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>59.1/56.7</b>	Est. Repl. Yr	2020	Maint. Req. (Y/N) No
Special Comments for Next Inspection	Not used as cattlepass; remove at earliest convenience - (AT have applied to remove cattlepass when feasible. 17Aug2007). Fill with low strength flowable material & granular is an option.,		Department Comments	Fill and remove from service at earliest. DA		
Maintenance Reviewed By	Darron Ahlstedt		Date	27-Nov-2012	Estimated Total	0
Proposed Long-Term Strategy	2007.08.17 Have signed Cattlepass removal form. remove and remediate when feasible by department.					
On 3-Year Program (Y/N)						
Proposed Action						
Previous Inspector's Name	Jason Saly		Previous Assistant's Name			
Next Inspection Date	17-Apr-2014		Previous Inspection Date	31-Mar-2011		
Inspection Cycle (Default) (months)	21					
Comment						