

Bridge Culvert Inspection				
Bridge File Number	74681 -1 Bridge Culvert		Form Type	CUL1
Year Built	1957		Lot No.	2
Bridge or Town Name	THREE HILLS		Inspector Name	Owen Salava
Located Over	TRAIL-ANIMAL, OVER SP		Inspector Class	BR CLS A
Located On	21:14 C1 25.827		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	18-Sep-2012
Legal Land Location	NE SEC 36 TWP 30 RGE 24 W4M		Data Entry By	Marcia Chavez
Longitude, Latitude	-113:14:38, 51:36:52		Data Entry Date	03-Oct-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	John O'Brien
Contract Main. Area	CMA20		Review Date	27-Sep-2012
Clear Roadway/Skew	11 / 50 deg. (RHF)		Dept. Reviewer Name	Andrew Smikles
AADT/Year	2,490 / 2011 (A)		Dept. Review Date	16-Oct-2012
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	1518	2430	BP	67			RECTANGLE
Special Features								
Special Features Comment								

Posting Information

Required Vert. Clearance Posting (m)												
Posted Vertical Clearance (Y/N)												
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	West ditch.					Gas						
Power						Municipal						
Others	Fibre optics East r/w.					Problem (Y/N)		No				
Remarks												

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		5	5	Sharp curve to South - super elevated. Hill to South. No passing both directions.
Vertical Alignment		5	5	
Roadway Width (m)	10.800			Fire damaged ACP at accident site.
Embankment		7	7	
Sideslope (__:1)	3.0			
(Height of Cover(m) : 4.5)				
Guardrail (Y/N)	Yes			Accident damage to E rail.
Approach Road / Embankment General Rating		5	5	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Collar		X	X	
Wingwalls		4	4	10mm wide diagonal crack in NW wing. Spall at top of wing. SW wingwall has moved 80mm South & has 20mm separation.
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		6	6	
(Type : NATURAL)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		6	4	Apron cracked & settled 150mm (photo).
Beavers (Y/N)	No			
Upstream End General Rating		6	4	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1518, Rise (mm): 2430, Type: BP)				
Barrel Last Accessible Date	18-Sep-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		7	7	
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)	0			
Percent Deflection				
Floor		7	7	5th panel on seam infiltration north gap 40 mm.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		4	4	Infiltration @ 2 seams @ North from West - 200mm high. Wide gap in 2nd seam from East in roof - leaking.
Separation (mm)	40			Each barrel section has a 20mm height difference on floor.
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: MAIN, Span (mm): 1518, Rise (mm): 2430, Type: BP)				
Coating		X	X	
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		7	7	
Icing (Y/N)	No			
Siltting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		7	7	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		E		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	
Collar		X	X	
Wingwalls (Shape :)		4	4	Moving in to 60 mm at SE (photo) - away from box 25 mm at North.
Cutoff Wall		X	X	Apron floor.
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection (Type : NATURAL) (Avg. Rock Size(mm) :)		7	7	Grown in with vegetation.
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Downstream End General Rating		4	4	
Structure Usage				
		Last	Now	Explanation of Condition
Grade Separation				
Road Alignment		7	7	U/S apron cracked and heaved 150mm. (Ponded 20 m lg x 100 mm dp at D/S. 1997/06/26).
Roadway Surface (Type : CONCRETE)		5	5	
Icing (Y/N)	No			
Traffic Safety Features Type	None	X	X	Steel gate at S end not in use (open).

Structure Usage				
		Last	Now	Explanation of Condition
Lighting		X	X	
Barrel Leakage (Y/N)	Yes			
Drainage		5	5	(Structure takes flow from East. HWM 0.8 @ D/S. 04-Mar-2006).
Structure In Use (Y/N)	Yes			
Grade Separation General Rating		5	5	

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	2012	Plug seams with expanding foam.					
OTHER ACTION	2012	Seal gap at W apron.					
OTHER ACTION	2012	Guardrail repairs reset 8 posts, replace 5 posts c/w spacer, replace 3 rail sections.					
OTHER ACTION	2012	Repave 210m2 ACP.					
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	77.8/77.8	Sufficiency Rating (Last/Now) (%)	69.9/67.9	Est. Repl. Yr	2025	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	(Water mark 500mm high at u/s end indicates this box culvert handles drainage occasionally. 25Jun1997).		Department Comments				
Maintenance Reviewed By			Date			Estimated Total	0
Proposed Long-Term Strategy							
On 3-Year Program (Y/N)	N						
Proposed Action	2006.10.24 Check site in two years for continued usage.						
Previous Inspector's Name	Dave Lam		Previous Assistant's Name				
Next Inspection Date	18-Jun-2014		Previous Inspection Date	10-Nov-2010			
Inspection Cycle (Default) (months)	21						
Comment							