

Bridge Culvert Inspection				
Bridge File Number	08272 -1 Bridge Culvert		Form Type	CUL1
Year Built	1978		Lot No.	1
Bridge or Town Name	ROCKY MT HOU		Inspector Name	Owen Salava
Located Over	CHICKEN CREEK, 6.155, WATERCRS-ST		Inspector Class	BR CLS A
Located On	22:24 C1 5.332		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	18-Oct-2012
Legal Land Location	SW SEC 22 TWP 40 RGE 7 W5M		Data Entry By	Marcia Chavez
Longitude, Latitude	-114:56:14, 52:27:10		Data Entry Date	15-Nov-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	John O'Brien
Contract Main. Area	CMA18		Review Date	29-Oct-2012
Clear Roadway/Skew	10.5 /		Dept. Reviewer Name	Andrew Smikles
AADT/Year	3,380 / 2011 (A)		Dept. Review Date	19-Nov-2012
Road Classification	RAU-211.8-110		Follow-Up By	
Detour Length (km)	10			

Bridge Culvert Information								
Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	PI./Slab Thickness	Shape
1	MAIN	1429	1573	SPE	60	152X51	3.0	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)			
Utility Attachments			
Telephone	In r/w to West.	Gas	
Power	4 wires 14m East c/l.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment				
		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	Grade to the North. Limited sight distance.
Vertical Alignment		6	6	
Roadway Width (m)	10.500			
Embankment		8	8	Benched at 5:1 halfway down.
Sideslope (__:1)	4.0			
(Height of Cover(m) : 4)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		6	6	

Upstream 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	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		5	5	(Holes in bevel. 29/May/2006) Beaver cage installed at bevel end.
Heaving (mm)	125			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	300			
Scour Protection		N	5	
(Type : NATURAL)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	5	
Beavers (Y/N)	Yes			
Upstream End General Rating		5	5	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1429, Rise (mm): 1573, Type: SPE)				
Barrel Last Accessible Date	29-May-2006			(Only 1/3 from inlet accessible; est design size 1425 x 1575. 29May2006) - Not accessible on U/S due to beaver cage; viewed from ends, shape marginal, unable to verify poor sections.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	(8 - 1470, 9 - 1450, 10 - 1430. 03/01/23)
Measured Rise (mm)	1430			
Measured At Ring No.	10			
Sag (mm)	143			
Percent Sag	9			
Sidewall		N	N	(Sidewall kinked N & S near c/l. 03/01/23). (R8 -1545, R9 - 1560, R10 - 1590. R7-11 buckling both sidewalls. 03/01/23). (1520mm span @ 1/2 D/S. Inlet 1560mm span @ c/l. Outlet 1540mm span @ 1/4 D/S. 1410 x 1580 @ U/S, 1420 x 1570 @ D/S. 03/01/23).
Measured Span (mm)	1590			
Measured At Ring No.	10			
Deflection (mm)	161			
Percent Deflection	11			
Floor		N	N	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	(Seams leaking. 23/Jan/2003) 3/4 submerged.
Separation (mm)	0			
Longitudinal Seams		N	N	
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			
Coating		N	N	(Superficial rusting. 29/May/2006).
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			900mm deep @ D/S 1/3.

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1429, Rise (mm): 1573, Type: SPE)				
Ponding (Y/N)	Yes			
Fish Passage Adequacy		5	5	(Small fish in culvert. 29/May/2006).
Baffle		X	X	
(Type :)				
Waterway Adequacy		4	4	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	Yes			Drift constricts flow.
Barrel General Rating		3	3	G.R. carried forward since 29/May/2006.
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		W		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		6	6	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		N	6	Round class 1m rock added to sides & inside bevel which contributes to ponding inside barrel.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 250)				
Scour/Erosion		N	6	
Beavers (Y/N)	No			
Downstream End General Rating		6	6	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		6	6	Bends U/S & D/S.
Bank Stability		6	6	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	Yes			Beaver dam, small, 40m U/S.
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		6	6	

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	2013	Assess, strut if required.								
INSTALL CONCRETE COLLAR/CUTOFF										
REPAIR SEAMS										
OTHER ACTION	2013	Winter inspection to confirm deflection.								
OTHER ACTION										
OTHER ACTION										
OTHER ACTION										
Structural Condition Rating (Last/Now) (%)	33.3/33.3	Sufficiency Rating (Last/Now) (%)	38.0/37.9	Est. Repl. Yr	2026	Maint. Req. (Y/N)	No			
Special Comments for Next Inspection	Note: 77mths or 3.7 cycles since barrel accessed; roof previously rated 3.									
Maintenance Reviewed By	Date									
Proposed Long-Term Strategy	2004.05.29 monitor on normal BIM. Should be good until 2030.									
On 3-Year Program (Y/N)										
Proposed Action										
Previous Inspector's Name	Owen Salava	Previous Assistant's Name								
Next Inspection Date	18-Jul-2014	Previous Inspection Date	02-Feb-2011							
Inspection Cycle (Default) (months)	21									
Comment										
	Estimated Total 0									

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	2013	Assess, strut if required.	Defer until AT's review	2013		
INSTALL CONCRETE COLLAR/CUTOFF						
REPAIR SEAMS						
OTHER ACTION	2013	Winter inspection to confirm deflection.	AT to review	2013		
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
Structural Condition Rating (Last/Now) (%)	33.3/33.3	Sufficiency Rating (Last/Now) (%)	38.0/37.9	Est. Repl. Yr	2026	Maint. Req. (Y/N) No
Special Comments for Next Inspection	Note: 77mths or 3.7 cycles since barrel accessed; roof previously rated 3.		Department Comments	Replacement programmed for 2019		
Maintenance Reviewed By	Andrew Smikles		Date	20-Dec-2012	Estimated Total	0
Proposed Long-Term Strategy	2004.05.29 monitor on normal BIM. Should be good until 2030.					
On 3-Year Program (Y/N)						
Proposed Action						
Previous Inspector's Name	Owen Salava		Previous Assistant's Name			
Next Inspection Date	18-Jul-2014		Previous Inspection Date	02-Feb-2011		
Inspection Cycle (Default) (months)	21					
Comment						