

Bridge Culvert Inspection				
Bridge File Number	02269 -1 Bridge Culvert		Form Type	CUL1
Year Built	1975		Lot No.	4
Bridge or Town Name	COCHRANE		Inspector Name	Garry Roberts
Located Over	GRAND VALLEY CREEK, 2.13.46, WATERCRS-ST		Inspector Class	BR CLS A
Located On	1A:06 C1 6.146		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	29-Aug-2012
Legal Land Location	SW SEC 24 TWP 26 RGE 5 W5M		Data Entry By	Lauren Korte
Longitude, Latitude	-114:34:20, 51:13:38		Data Entry Date	28-Sep-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Tom Carey
Contract Main. Area	CMA28		Review Date	04-Sep-2012
Clear Roadway/Skew	11.2 / 17 deg. (RHF)		Dept. Reviewer Name	Tim Davies
AADT/Year	3,890 / 2011 (A)		Dept. Review Date	02-Oct-2012
Road Classification	RAU-210-110		Follow-Up By	
Detour Length (km)	8			

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	4648	5156	SPE	130.5	152X51	5.0,6.0	ELLIPSE
Special Features	HORIZ TIMB STRUTS							
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	North side of road @ sideslope.	Gas	
Power	4 wire to South 50m from c/l.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Curve, sag, crest - limited sight distance.
Vertical Alignment		5	5	
Roadway Width (m)	11.200			
Embankment		7	7	
Sideslope (__:1)	3.0			
(Height of Cover(m) : 15.3)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		5	5	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction				North.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		X	X	
Collar		5	5	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		6	6	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		5	5	(Pressure on bevel to NE causing crack at top of step bevel to barrel.) 94/12/04 - Not seen - under strut? Culvert is being forced in by earth pressure at top of bevelled end. Strut across barrel at this point - appears stable.
Heaving (mm)	150			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		6	6	Some 1000mm rock @ banks.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 500)				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
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): 4648, Rise (mm): 5156, Type: SPE)				
Barrel Last Accessible Date	29-Aug-2012			
Special Features				
Special Feature		7	5	Horizontal strut at each end to keep earth from pushing.
(Type : HORIZ TIMB STRUTS)				
Special Feature				
(Type :)				
Roof		6	6	One section at mid span 100 - 200 sag - estimate @ ring #18 & #17.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	200			
Percent Sag	3			
Sidewall		5	5	East sidewall longitudinal seam @ ring 1 cusping 100mm.
Measured Span (mm)	4780			
Measured At Ring No.	17			
Deflection (mm)	132			
Percent Deflection	2			
Floor		N	6	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		6	6	
Separation (mm)	0			
Longitudinal Seams		4	4	Extra bolts in the seams in centre portion of barrel (1 crack at 1st section where step bevel attached.) 94/12/04 - not seen - could be under strut?
Total No. of Cracked Rings	1			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		4	4	Superficial corrosion @ waterline. Efflorescence @ longitudinal seams @ roof and sidewall rings #1 to #9 and @ D/S 4 rings. Corrosin stains @ Seams R1 to R9 & D/S E4
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 4648, Rise (mm): 5156, Type: SPE)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		4	4	GR - rated 4 due to previous crack observation.
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction				South.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		X	X	
Collar		7	7	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		6	N	Buried.
Bevel End		6	6	Bevelled end is being forced in by earth pressure. Strut across this point.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection		7	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 600)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Downstream End General Rating		6	6	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		5	5	90 deg bend D/S.
Bank Stability		5	5	Steep cut 25m D/S.
HWM (m below Top of Culvert)	2.0			HWM from debris in trees at U/S.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel 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							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	44.4/44.4	Sufficiency Rating (Last/Now) (%)	52.4/52.5	Est. Repl. Yr	2025	Maint. Req. (Y/N)	No
Special Comments for Next Inspection			Department Comments				
Maintenance Reviewed By			Date			Estimated Total	0
Proposed Long-Term Strategy							
On 3-Year Program (Y/N)							
Proposed Action							
Previous Inspector's Name	Garry Roberts		Previous Assistant's Name				
Next Inspection Date	29-May-2014		Previous Inspection Date	13-Dec-2010			
Inspection Cycle (Default) (months)	21						
Comment							