

Bridge Culvert Inspection				
Bridge File Number	00657 -1 Bridge Culvert		Form Type	CUL1
Year Built	1980		Lot No.	4
Bridge or Town Name	CALGARY		Inspector Name	Garry Roberts
Located Over	MILLBURN CREEK, 2.13.33.8, WATERCRS-ST		Inspector Class	BR CLS A
Located On	8:06 C1 4.524		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	30-May-2012
Legal Land Location	SE SEC 7 TWP 24 RGE 3 W5M		Data Entry By	Kelsey Roberts
Longitude, Latitude	-114:24:08, 51:01:24		Data Entry Date	27-Jun-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Tom Carey
Contract Main. Area	CMA27		Review Date	18-Jun-2012
Clear Roadway/Skew	13 /		Dept. Reviewer Name	Tim Davies
AADT/Year	7,900 / 2011 (A)		Dept. Review Date	29-Jun-2012
Road Classification	RAU-210-110		Follow-Up By	
Detour Length (km)	15			

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	4929	3151	RPE	44.5	152X51	2.8,2.8,2.8	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments				
Telephone	IN SOUTH DITCH.		Gas	Approx 50m N
Power	APPROX 23 m NORTH - 5 WIRE		Municipal	
Others			Problem (Y/N)	No
Remarks				

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Int 100m E
Vertical Alignment		8	8	
Roadway Width (m)	13.000			
Embankment		7	7	4:1 to 6:1 @ south
Sideslope (__:1)	6.0			
(Height of Cover(m) : 1.2)				
Guardrail (Y/N)	Yes			Missing bolts at post #15 from SW turndown
Approach Road / Embankment General Rating		7	7	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		S		SOUTH
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		X	X	
Collar		5	5	SETTLEMENT OF EXTENDED SLAB and widecracks 90 mm SE corner
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		7	7	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	600			
Scour Protection		7	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		7	7	
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): 4929, Rise (mm): 3151, Type: RPE)				
Barrel Last Accessible Date	20-Jan-2009			Inaccessible barrel due to water depth- Could only enter in up to Ring 3.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	(200 mm BULGE IN ROOF @ RING #10 @ W ROOF SEAM.) 20-Jan-2009
Measured Rise (mm)				
Measured At Ring No.				Estimate
Sag (mm)	100			Roof has adequate arch uner roadway
Percent Sag	3			Culvert viewed from ends shape is adequate . PR 5
Sidewall		N	N	PR 3
Measured Span (mm)	5000			
Measured At Ring No.	10			
Deflection (mm)	71			
Percent Deflection	1			
Floor		N	N	1500 mm Water
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	N	
Separation (mm)	0			
Longitudinal Seams		N	N	(CRKS @ LOWER E LONGIT SIDEWALL SEAM FROM RING #2-#11. 85mm REMAINING STEEL @ RING #4. 100mm REMAINING STEEL)20-Jan-2009
Total No. of Cracked Rings	10			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	80			(@ RING #6 MIDSPAN, 80mm remaining steel @ ring #7) 20-Jan-2009
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			(Only saw cracks in rings 2-8, others under ice) 20-Jan-2009
				PR 3 Stagger at roof seams only
Coating		7	N	
Corrosion By Soil (Y/N)	No			
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): 4929, Rise (mm): 3151, Type: RPE)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	Approx. 300mm of silt in U/S end.
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		3	3	GR carried forward
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		N		NORTH
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	Rock has settled 300m at both sides of bevel
Heaving (mm)	200			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		6	6	Ingrown
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
Downstream End General Rating		5	6	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		7	7	
HWM (m below Top of Culvert)	0.3			No visible HWM
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	AGGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		7	7	

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) (%)	33.3/33.3	Sufficiency Rating (Last/Now) (%)	54.3/47.5	Est. Repl. Yr	2022	Maint. Reqd. (Y/N)	No
Special Comments for Next Inspection	Monitor remaining steel on cracked longitudinal seams- repairs or replacement may be necessary.		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	28-Feb-2014		Previous Inspection Date	23-Oct-2010			
Inspection Cycle (Default) (months)	21						
Comment							