

Bridge Culvert Inspection			
Bridge File Number	74516 -1 Bridge Culvert	Form Type	CUL1
Year Built	1994	Lot No.	4
Bridge or Town Name	TOMAHAWK	Inspector Name	Kris Bosters
Located Over	TRIBUTARY TO SHOAL LAKE CREEK, 6.129.1, WATERCRS-ST	Inspector Class	BR CLS A
Located On	627:02 C1 6.658	Assistant Name	Brian Cote
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	25-Oct-2012
Legal Land Location	SW SEC 2 TWP 52 RGE 5 W5M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-114:38:18, 53:27:15	Data Entry Date	06-Nov-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA12	Review Date	04-Nov-2012
Clear Roadway/Skew	9.9 / 25 deg. (RHF)	Dept. Reviewer Name	Brent Herrick
AADT/Year	1,430 / 2011 (A)	Dept. Review Date	13-Nov-2012
Road Classification	RCU-209-110	Follow-Up By	
Detour Length (km)	38		

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	2120	SP	118.3	152X51	4.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments							
Telephone	S r/w	Gas	100 M West				
Power	1 wire N r/w, 1 wire S r/w.	Municipal					
Others		Problem (Y/N)	No				
Remarks							

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Intersection 100m West. Long gradual grade with crest curve in both directions limited sight distance.
Vertical Alignment		6	6	
Roadway Width (m)	9.900			
Embankment		5	5	SW ditch cattle walking thru causing damage to grass S. ditch- stable @ present.
Sideslope (__:1)	3.0			
(Height of Cover(m) : 14)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		6	6	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		N		
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		7	7	
Heaving (mm)	250			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		5	5	Sandstone rock beginning to deteriorate - settlement of fill beside bevel 0.5m.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
Scour/Erosion		5	5	
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): , Rise (mm): 2120 , Type: SP)				
Barrel Last Accessible Date	25-Oct-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		5	4	Plates appear to be over bumped causes cusping @ long seams. 2 missing bolts in roof long seam and circ. seam. Some reverse curvature in this area. R10 from d/s.-photo
Measured Rise (mm)	1960			
Measured At Ring No.	23			
Sag (mm)	160			
Percent Sag	8			
Sidewall		5	5	
Measured Span (mm)	2240			
Measured At Ring No.	23			
Deflection (mm)	120			
Percent Deflection	6			
Floor		7	7	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		5	4	
Separation (mm)	0			
Longitudinal Seams		5	4	2 bolts not put in on one seam has caused some reverse curvature. 1N Stagger
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		6	6	Minor superficial rust on floor.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2120, Type: SP)				
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		5	4	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		S		
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	BELOW			
Above/Below (mm)	300			
Scour Protection		5	5	Sandstone beginning to deteriorate.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Downstream End General Rating		5	5	
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)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	Yes			
(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) (%)	55.6/44.4	Sufficiency Rating (Last/Now) (%)	59.2/53.7	Est. Repl. Yr	2038	Maint. Req. (Y/N)	No
Special Comments for Next Inspection	Monitor roof flattening, and reverse curve at R10 from d/s.		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	Arnold Assenheimer		Previous Assistant's Name				
Next Inspection Date	25-Jan-2016		Previous Inspection Date	08-Jul-2009			
Inspection Cycle (Default) (months)	39						
Comment							