

Bridge Culvert Inspection				
Bridge File Number	76798 -1 Bridge Culvert		Form Type	CULM
Year Built	1969		Lot No.	2
Bridge or Town Name	ENTRANCE		Inspector Name	Shane Hall
Located Over	TWELVE MILE CREEK, 8.11.118.3.5, WATERCRS-ST		Inspector Class	BR CLS A
Located On	40:30 C1 34.066		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	17-Oct-2012
Legal Land Location	SE SEC 10 TWP 53 RGE 27 W5M		Data Entry By	Theresa Lacusta
Longitude, Latitude	-117:53:29, 53:33:39		Data Entry Date	26-Nov-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Eric Carcoux
Contract Main. Area	CMA13		Review Date	19-Nov-2012
Clear Roadway/Skew	8.5 /		Dept. Reviewer Name	Brent Herrick
AADT/Year	2,040 / 2011 (A)		Dept. Review Date	06-Dec-2012
Road Classification	RAU-209-110		Follow-Up By	
Detour Length (km)	420			

Bridge Culvert Information

Number of Culverts		2						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2905	3203	SPE	78	152X51	4.3	ELLIPSE
2	MAIN	-	915	MP	78	68X13	2.8	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments					
Telephone	North r/w.			Gas	
Power				Municipal	
Others				Problem (Y/N)	No
Remarks	File tag in place.				

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Bottom long sag curve.
Vertical Alignment		6	6	
Roadway Width (m)	8.500			
Embankment		N	5	
Sideslope (__:1)	3.0			
(Height of Cover(m) : 13.4)				
Guardrail (Y/N)	Yes			SE end not bolted to end post. 1 broken post @ NE corner.-photo
Approach Road / Embankment General Rating		6	6	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		S		West pipe.
End Treatment (Concrete, Steel, Others, None)		STEEL		
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)	100			
Invert Above/Below Stream Bed	ABOVE			(20/Apr/2007)
Above/Below (mm)	600			
Scour Protection		N	6	Partially covered by water/beaverdams, no problems evident.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		N	N	beaverdam
Beavers (Y/N)	Yes			2m high dam on inlet.
Upstream End General Rating		6	6	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2905, Rise (mm): 3203, Type: SPE)				
Barrel Last Accessible Date	17-Oct-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	
Measured Rise (mm)	3159			
Measured At Ring No.	14			
Sag (mm)	44			1.3%
Percent Sag	1			
Sidewall		7	7	
Measured Span (mm)	2936			
Measured At Ring No.	14			
Deflection (mm)	31			
Percent Deflection	1			
Floor		N	7	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		8	8	
Separation (mm)	0			
Longitudinal Seams		6	6	5% of seams nested poorly.
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				1N
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		5	5	Superficial rust on lower 1/4.
Corrosion By Soil (Y/N)	No			
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): 2905, Rise (mm): 3203, Type: SPE)					
Camber POS/ZERO/NEG	ZERO				
Ponding (Y/N)	No				
Fish Passage Adequacy		3	3	Outlet above streambed.	
Baffle		X	X		
(Type :)					
Waterway Adequacy		8	8		
Icing (Y/N)	No				
Silting (Y/N)	No				
Drift (Y/N)	No				
Barrel General Rating		6	6		
Downstream End					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 1, Span Type: Primary Span)					
Direction		N		West pipe.	
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)	200				
Invert Above/Below Stream Bed	ABOVE				
Above/Below (mm)	1000				
Scour Protection		N	4		
(Type : RIP RAP)					
(Avg. Rock Size(mm) : 300)					
Scour/Erosion		N	4	15m x 10m x 1m scour hole.	
Beavers (Y/N)	No				
Downstream End General Rating		4	4		
Upstream End					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 2, Span Type: Secondary Span)					
Direction		S		East pipe. Not found. Likely submerged.	
End Treatment (Concrete, Steel, Others, None)	NONE				
Headwall		X	X		
Collar		X	X		
Wingwalls		X	X		
(Shape :)					
Cutoff Wall		X	X		

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Bevel End		N	N	Under water.
Heaving (mm)	300			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		N	N	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		N	N	
Beavers (Y/N)	Yes			
Upstream End General Rating		6	6	G.R. carried forward since 16/Aug/2005 but element not rated in 2005 either.
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 915, Type: MP)				
Barrel Last Accessible Date				Not possible to access 915 pipe. 300mm deep flow @ outlet. Viewed from d/s end, shape appears good.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall		N	N	
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)				
Percent Deflection				
Floor		N	N	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	N	
Separation (mm)				
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)				
Coating		4	4	Scaling rust lower 3/4.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 915, Type: MP)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		4	4	Outlet above streambed.
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		N	N	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		N		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		5	5	
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	900			
Scour Protection		5	5	Rock filled to invert, water tumbles down riprap to the streambed.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		5	5	Scour hole 500mm deep.
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		N	7	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading	DEGRADING			Downstream only. Large beaverdam @ u/s end.
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				

Structure Usage				
		Last	Now	Explanation of Condition
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	2013	Repair guardrail posts.					
OTHER ACTION	2013	Remove beaverdam from u/s end.					
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	66.7/66.7	Sufficiency Rating (Last/Now) (%)	50.1/50.0	Est. Repl. Yr	2047	Maint. Req. (Y/N)	Yes
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	Shane Hall		Previous Assistant's Name				
Next Inspection Date	17-Jul-2014		Previous Inspection Date	24-Nov-2010			
Inspection Cycle (Default) (months)	21						
Comment							