

Bridge Culvert Inspection			
Bridge File Number	71762 -1 Bridge Culvert	Form Type	CULM
Year Built	1979	Lot No.	4
Bridge or Town Name	BRETON	Inspector Name	Wade Nanninga
Located Over	TRIBUTARY TO POPLAR CREEK, 6.132.8, WATERCRS-ST	Inspector Class	BR CLS B
Located On	616:02 C1 18.465	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	14-Feb-2011
Legal Land Location	SW SEC 2 TWP 48 RGE 5 W5M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-114:37:42, 53:06:18	Data Entry Date	22-Feb-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Arnold Assenheimer
Contract Main. Area	CMA11	Review Date	22-Feb-2011
Clear Roadway/Skew	9 /	Dept. Reviewer Name	Brent Herrick
AADT/Year	860 / 2009 (A)	Dept. Review Date	02-Mar-2011
Road Classification	RCU-209-110	Follow-Up By	
Detour Length (km)	6		

Bridge Culvert Information

Number of Culverts	2							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2314	2552	SPE	39.6	152X51	3.0	ELLIPSE
2	MAIN	-	2400	MP	25	125X26	2.8	ROUND
Special Features								
Special Features Comment	BF tag installed on W pipe, S side.							

Utilities (Located at)

Utility Attachments			
Telephone	South r/w.	Gas	
Power	2 lines North r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Field entrances and intersection. Sag curves with limited sight distance. No passing on hills.
Vertical Alignment		7	7	
Roadway Width (m)	9.000			
Embankment		7	7	West pipe 3.5m.
Sideslope (__:1)	3.0			
(Height of Cover(m) : 0.8)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		7	7	

Upstream End

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

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Collar		4	N	Concrete collar cracked. Void under SW collar.21-Nov-2007
Wingwalls (Shape :)		X	X	
Cutoff Wall		X	X	
Bevel End		6	6	
Heaving (mm)	200			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection (Type : RIP RAP) (Avg. Rock Size(mm) : 400)		4	N	Concrete collar no longer protects erosion/scour.
Scour/Erosion		4	N	Ice U/S. Void under collar & bevel SW.
Beavers (Y/N)	No			
Upstream End General Rating		4	4	GR carried forward.
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2314, Rise (mm): 2552, Type: SPE)				
Barrel Last Accessible Date	14-Feb-2011			Ice to crown 0.5m.
Special Features				
Special Feature (Type :)				
Special Feature (Type :)				
Roof		5	5	(2405 near c/l, 5.7%. 01/Sept/2004)
Measured Rise (mm)	2405			
Measured At Ring No.				
Sag (mm)	147			
Percent Sag	6			
Sidewall		4	N	(2480 near c/l, 7.2%. 01/Sept/2004)
Measured Span (mm)	2480			
Measured At Ring No.				
Deflection (mm)	166			
Percent Deflection	7			
Floor		7	N	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		4	N	Rings 4, 5 & 8 have cracks on East wall with 80 mm of steel left on ring 8. Ring 4, 110mm left. Ring 5, 100mm left.
Total No. of Cracked Rings	3			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2314, Rise (mm): 2552, Type: SPE)				
Coating		6	N	Minor superficial on floor. Corrosion @ bolt holes where water is leaching into pipe.-21-Nov-2007
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			
Fish Passage Adequacy		4	5	
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 carried forward.
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		N		West barrel.
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	ABOVE			
Above/Below (mm)	400			
Scour Protection		4	N	Streambed is degraded resulting in a dropoff and the bevel unsupported for 1.0m length.21-Nov-2007 Ice covered.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		4	N	5 x 10 x 1m ice.
Beavers (Y/N)	No			
Downstream End General Rating		4	4	GR carried forward.
Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		S		East barrel. Overflow pipe.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	2200			
Scour Protection		8	8	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Upstream End General Rating		8	8	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2400, Type: MP)				
Barrel Last Accessible Date	14-Feb-2011			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	CL Upward.
Measured Rise (mm)	2420			
Measured At Ring No.				
Sag (mm)	20			
Percent Sag	0			
Sidewall		7	7	CL
Measured Span (mm)	2405			
Measured At Ring No.				
Deflection (mm)	5			
Percent Deflection	0			
Floor		8	8	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		8	8	
Separation (mm)	0			
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)				

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2400, Type: MP)				
Coating		7	7	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		8	4	2m above S.B.
Baffle		X	X	
(Type :)				
Waterway Adequacy		8	5	Overflow 2m above S.B.
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		7	7	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		N		East barrel.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	2500			
Scour Protection		7	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Downstream End General Rating		8	7	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		8	8	
Bank Stability		7	7	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	Yes			

Structure Usage				
		Last	Now	Explanation of Condition
Channel Bottom Degrading/Aggrading	DEGRADING			
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) (%)	44.4/44.4	Sufficiency Rating (Last/Now) (%)	49.1/42.9	Est. Repl. Yr	2020	Maint. Req. (Y/N)	No
Special Comments for Next Inspection	Monitor cracks and scour.		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	Jacob Oresile		Previous Assistant's Name				
Next Inspection Date	14-May-2014		Previous Inspection Date	21-Nov-2007			
Inspection Cycle (Default) (months)	39						
Comment							