

Bridge Culvert Inspection			
Bridge File Number	80697 -1 Bridge Culvert	Form Type	CULM
Year Built	1986	Lot No.	4
Bridge or Town Name	GRANDE CACHE	Inspector Name	Russel Vanderschaaf
Located Over	TRIBUTARY TO SMOKY RIVER, 8.10.58.29, WATERCRS-ST	Inspector Class	BR CLS B
Located On	40:36 C1 28.015	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	23-Aug-2012
Legal Land Location	NW SEC 3 TWP 59 RGE 7 W6M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-118:57:46, 54:04:32	Data Entry Date	26-Sep-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA05	Review Date	24-Sep-2012
Clear Roadway/Skew	10.2 / 0 deg.	Dept. Reviewer Name	Steve Pasquan
AADT/Year	1,220 / 2011 (A)	Dept. Review Date	07-Jan-2013
Road Classification	RAU-211.8-110	Follow-Up By	
Detour Length (km)	60		

**Bridge Culvert Information**

Number of Culverts	2							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	2430	SP	51.8	152X51	3.0	ROUND
2	MAIN	-	2430	SP	44.5	152X51	3.0	ROUND
Special Features								
Special Features Comment								

**Utilities (Located at)**

Utility Attachments			
Telephone		Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks			

**Approach Road / Embankment**

	Last	Now	Explanation of Condition
Horizontal Alignment	8	8	CULVERTS ARE SPACED 70m APART Hill to the East. Curve to the West.
Vertical Alignment	8	8	
Roadway Width (m)	10.200		
Embankment	8	8	Starts at 5:1.
Sideslope (__:1)	4.0		
(Height of Cover(m) : 5.2)			
Guardrail (Y/N)	No		
<b>Approach Road / Embankment General Rating</b>	<b>8</b>	<b>8</b>	

**Upstream 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	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Span Type: Primary Span)</b>				
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		N	6	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		N	6	50% sandstone, mostly grown over.
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>300</b> )				
Scour/Erosion		N	6	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>6</b>	<b>6</b>	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2430, Type: SP)</b>				
Barrel Last Accessible Date	23-Aug-2012			West pipe.
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		7	7	
Measured Rise (mm)	2370			
Measured At Ring No.	6			
Sag (mm)	60			
Percent Sag	2			
Sidewall		7	7	
Measured Span (mm)	2462			
Measured At Ring No.	6			
Deflection (mm)	32			
Percent Deflection	1			
Floor		N	7	
Bulge (mm)				
Measured At Ring No.	6			
Abrasion (Y/N)	No			
Circumferential Seams		8	8	
Separation (mm)	0			
Longitudinal Seams		8	8	
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)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2430, Type: SP)				
Coating		8	8	
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	8	
Baffle		N	N	
(Type : )				
Waterway Adequacy		8	8	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>7</b>	<b>7</b>	

Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		S		West culvert.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		N	7	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		N	7	Mostly grown.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
Scour/Erosion		N	7	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>7</b>	<b>7</b>	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		N		East culvert.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 2, Span Type: Secondary Span)</b>				
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		X	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	900			
Scour Protection		N	7	Grown over.
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>300</b> )				
Scour/Erosion		N	7	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>7</b>	<b>7</b>	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2430, Type: SP)</b>				
Barrel Last Accessible Date	23-Aug-2012			East
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		8	7	No rise measurements due to silt and ice on floor.
Measured Rise (mm)				Shape looks good.
Measured At Ring No.	6			Est. sag
Sag (mm)	15			
Percent Sag	1			
Sidewall		8	7	
Measured Span (mm)	2443			
Measured At Ring No.	6			
Deflection (mm)	13			
Percent Deflection	1			
Floor		N	N	Silt on floor.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	7	
Separation (mm)	0			
Longitudinal Seams		N	7	
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)	No			

Bridge Culvert Barrel					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2430, Type: SP)					
Coating		N	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	7		
Baffle		N	N		
(Type : )					
Waterway Adequacy		6	6	Approx. 1.0m of silt through out pipe.	
Icing (Y/N)	No				
Siltting (Y/N)	Yes				
Drift (Y/N)	No				
<b>Barrel General Rating</b>		<b>N</b>	<b>7</b>		
Downstream End					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 2, Span Type: Secondary Span)					
Direction		S		East pipe.	
End Treatment (Concrete, Steel, Others, None)	STEEL				
Headwall		X	X		
Collar		X	X		
Wingwalls		X	X		
(Shape : )					
Cutoff Wall		X	X		
Bevel End		N	7		
Heaving (mm)	0				
Invert Above/Below Stream Bed	BELOW				
Above/Below (mm)	1000				
Scour Protection		N	7	Grown over.	
(Type : RIP RAP)					
(Avg. Rock Size(mm) : 400)					
Scour/Erosion		N	7		
Beavers (Y/N)	No				
<b>Downstream End General Rating</b>		<b>7</b>	<b>7</b>		
Structure Usage					
		Last	Now	Explanation of Condition	
<b>Channel (U/S and D/S)</b>					
Alignment		7	7	Makes gradual bends u/s of E. pipe.	
Bank Stability		8	8		
HWM (m below Top of Culvert)	1.8			Silt deposit line u/s end of pipe. 2004-04-11	
Drift (Y/N)	No				

Structure Usage				
		Last	Now	Explanation of Condition
Channel Bottom Degrading/Aggrading				Stable Cutting present-May 25, 2007
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				
<b>Channel General Rating</b>		<b>7</b>	<b>7</b>	

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							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>77.8/77.8</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>70.1/70.0</b>	Est. Repl. Yr	2031	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	Russel Vanderschaaf		Previous Assistant's Name				
Next Inspection Date	23-May-2014		Previous Inspection Date	19-Nov-2010			
Inspection Cycle (Default) (months)	21						
Comment							