

Bridge Culvert Inspection			
Bridge File Number	76529 -1 Bridge Culvert	Form Type	CUL1
Year Built/Lined	1968/1990	Lot No.	2
Bridge or Town Name	GRANDE CACHE	Inspector Name	Russel Vanderschaaf
Located Over	MASON CREEK, 8.10.58.31.5, WATERCRS-ST	Inspector Class	BR CLS B
Located On	40:34 C1 11.085	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	22-Aug-2012
Legal Land Location	SW SEC 16 TWP 57 RGE 6 W6M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-118:50:11, 53:55:34	Data Entry Date	25-Sep-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA05	Review Date	24-Sep-2012
Clear Roadway/Skew	8.2 / -23 deg. (LHF)	Dept. Reviewer Name	David Morrison
AADT/Year	1,590 / 2011 (A)	Dept. Review Date	18-Dec-2012
Road Classification	RAU-209-110	Follow-Up By	
Detour Length (km)	400		

**Bridge Culvert Information**

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
2	MAIN FULL LINER	-	4200	MP	68.3	152X51	3.5	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		6	6	No passing both ways. Log truck intersection 40 m east.
Vertical Alignment		6	6	
Roadway Width (m)	8.000			
Embankment		5	5	Gullies 400x300x100mm rocked & stable.
Sideslope (__:1)	3.0			
(Height of Cover(m) : 7.3)				
Guardrail (Y/N)	Yes			
<b>Approach Road / Embankment General Rating</b>		<b>6</b>	<b>6</b>	

**Upstream End**

Culvert Component		Last	Now	Explanation of Condition
Direction		S		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		N	N	Concrete spread on sided breaking up.May 24, 2007 Under drift
Wingwalls		X	X	
(Shape : )				

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Cutoff Wall		N	N	
Bevel End		N	3	Under drift 50mm-300mm in dia.-photo.
Heaving (mm)				
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		N	7	
(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>4</b>	<b>3</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : <b>2</b> , Secondary Span, Location Code: <b>MAIN</b> , Span (mm): , Rise (mm): <b>4200</b> , Type: <b>MP</b> )				
Barrel Last Accessible Date	22-Aug-2012			
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		5	5	@ C/L
Measured Rise (mm)	3938			Severed indentations from excess pressure pumping. Rated 8 as it is lined with concrete.
Measured At Ring No.				Est. sag. due to silt(2000 deep)
Sag (mm)	262			
Percent Sag	6			
Sidewall		7	7	@ C/L
Measured Span (mm)	4330			
Measured At Ring No.				
Deflection (mm)	130			
Percent Deflection	3			
Floor		N	5	Several inspection holes cut inot plate liner at 7:00 & 5:00.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	4	Missing 1 bolt on d/s bevel.
Separation (mm)				
Longitudinal Seams		N	5	
Total No. of Cracked Rings				
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		X	4	aBRASION FROM 5:00 - 7:00
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			

Bridge Culvert Barrel					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 4200, Type: MP)					
Ponding (Y/N)	No				
Fish Passage Adequacy		4	4		
Baffle		X	X		
(Type : )					
Waterway Adequacy		7	3	Large drift @ D/S end. + u/s end blocking inlet.-photo	
Icing (Y/N)	Yes				
Silting (Y/N)	No				
Drift (Y/N)	Yes				
<b>Barrel General Rating</b>		<b>5</b>	<b>5</b>		
Downstream 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	3		
Bevel End		4	3	Hanging for 2m-photo	
Heaving (mm)	0				
Invert Above/Below Stream Bed	ABOVE				
Above/Below (mm)	300				
Scour Protection		4	3	Scour under bevel 2mLx4.6mWx.3m D.-photo.	
(Type : RIP RAP)					
(Avg. Rock Size(mm) : 300)					
Scour/Erosion		4	3	Scour under bevel 2mLx4.6mWx.3m D.-photo.	
Beavers (Y/N)	No				
<b>Downstream End General Rating</b>		<b>4</b>	<b>3</b>		
Structure Usage					
		Last	Now	Explanation of Condition	
<b>Channel (U/S and D/S)</b>					
Alignment		8	8		
Bank Stability		8	8		
HWM (m below Top of Culvert)	3.0			DRIFT LINE AT INLET END, HWM 2005/09/22)	
Drift (Y/N)	Yes				
Channel Bottom Degrading/Aggrading	DEGRADING			Large drift D/S	
Beavers (Y/N)	No				
(Fish Compensation Measure 1 : NONE)					
(Fish Compensation Measure 2 : NONE)					
<b>Channel General Rating</b>		<b>8</b>	<b>8</b>		

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
SHOTCRETE REPAIRS							
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION	2013	from u/s end					
INSTALL CONCRETE/STEEL LINING							
INSTALL STRUTS							
INSTALL CONCRETE COLLAR/CUTOFF							
REPAIR SEAMS							
OTHER ACTION	2013	Repaor scour under bevel on d/s end + undermined bevel.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>55.6/55.6</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>51.6/35.8</b>	Est. Repl. Yr	2025	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Scheduled for extension as part of hwy 40 upgrading.		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	22-May-2014		Previous Inspection Date	17-Nov-2010			
Inspection Cycle (Default) (months)	21						
Comment							