

Bridge Culvert Inspection			
Bridge File Number	76905 -1 Bridge Culvert	Form Type	CUL1
Year Built	1988	Lot No.	4
Bridge or Town Name	GRANDE CACHE	Inspector Name	Russel Vanderschaaf
Located Over	VERONIQUE CREEK, 8.10.58.31.7, WATERCRS-ST	Inspector Class	BR CLS B
Located On	40:34 C1 3.409	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	22-Aug-2012
Legal Land Location	NE SEC 18 TWP 57 RGE 5 W6M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-118:43:24, 53:55:51	Data Entry Date	24-Sep-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA05	Review Date	24-Sep-2012
Clear Roadway/Skew	8.4 / -29 deg. (LHF)	Dept. Reviewer Name	Steve Pasquan
AADT/Year	1,590 / 2011 (A)	Dept. Review Date	04-Jan-2013
Road Classification	RAU-209-110	Follow-Up By	
Detour Length (km)	60		

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	3050	SP	164.7	152X51	7.0	ROUND
Special Features	BARREL ELBOW							
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power	2 WIRE O/H n R/W	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

	Last	Now	Explanation of Condition
Horizontal Alignment	6	6	No passing E. bound.
Vertical Alignment	6	6	Limited sight distance both directions due to crest curve and horizontal curve.
Roadway Width (m)	8.400		
Embankment	N	4	4 erosion gullies S.side 600mm x 800mm x approx 40 m. ripped and vegetated.
Sideslope (___:1)	3.0		
(Height of Cover(m) : 24.3)			
Guardrail (Y/N)	Yes		
Approach Road / Embankment General Rating	6	6	

Upstream End

Culvert Component	Last	Now	Explanation of Condition
Direction	N		
End Treatment (Concrete, Steel, Others, None)	CONCRETE		
Headwall	N	7	
Collar	N	7	Small chips from rip rap placement.
Wingwalls	X	X	
(Shape :)			

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Cutoff Wall		N	N	
Bevel End		N	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		N	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		N	7	
Beavers (Y/N)	No			
Upstream End General Rating		7	7	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1 , Primary Span, Location Code: MAIN , Span (mm): , Rise (mm): 3050 , Type: SP)				
Barrel Last Accessible Date	22-Sep-2005			Couldn't access due to high flowing water at u/s end and water depth at d/s end.(1.0+m) Shape looks good from ends.
Special Features				
Special Feature		N	N	2 vertical and 1 horizontal.
(Type : BARREL ELBOW)				
Special Feature				
(Type :)				
Roof		N	N	(3158x2891mm @ R42 - 2005/09/05)
Measured Rise (mm)	2873			
Measured At Ring No.	22			
Sag (mm)	177			
Percent Sag	6			
Sidewall		N	N	
Measured Span (mm)	3155			
Measured At Ring No.	22			
Deflection (mm)	105			
Percent Deflection	3			
Floor		N	N	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	(COUPLE OF BOLTS ON 1ST CIRCUM. WERE NOT TORQUED - seam and throughout - 2005/09/05)
Separation (mm)	0			
Longitudinal Seams		N	N	(Poor nesting in roof plates throughout - 2005/09/05)
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		N	N	
Corrosion By Soil (Y/N)				
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): , Rise (mm): 3050, Type: SP)					
Camber POS/ZERO/NEG	ZERO				
Ponding (Y/N)	No				
Fish Passage Adequacy		X	X	Vertical elbows prevents fish from getting upstream.May 24, 2007	
Baffle		X	X		
(Type :)					
Waterway Adequacy		6	6	09-Mar-2010	
Icing (Y/N)	Yes				
Silting (Y/N)	No				
Drift (Y/N)	No				
Barrel General Rating		N	N		
Downstream End					
Culvert Component		Last	Now	Explanation of Condition	
Direction		S		Water 2.5m from crown d/s end, water 1.0m deep at access point.	
End Treatment (Concrete, Steel, Others, None)	CONCRETE				
Headwall		6	6	300 x 150 x 30mm deep spall at top.	
Collar		N	6		
Wingwalls		X	X		
(Shape :)					
Cutoff Wall		N	N		
Bevel End		N	6		
Heaving (mm)	0				
Invert Above/Below Stream Bed	BELOW				
Above/Below (mm)	800				
Scour Protection		N	4	Scour hole 10mLx6mWx1.0mD.	
(Type : RIP RAP)					
(Avg. Rock Size(mm) : 300)					
Scour/Erosion		N	4	Scour hole 10mLx6mWx1.0mD.	
Beavers (Y/N)	No				
Downstream End General Rating		6	4		
Structure Usage					
		Last	Now	Explanation of Condition	
Channel (U/S and D/S)					
Alignment		6	6	Confluence at u/s end.May 24, 2007 Vertical banks d/s.	
Bank Stability		6	6	Vertical banks d/s.	
HWM (m below Top of Culvert)	0.5				
Drift (Y/N)	No				
Channel Bottom Degrading/Aggrading				Stable	
Beavers (Y/N)	No				
(Fish Compensation Measure 1 : NONE)					
(Fish Compensation Measure 2 : NONE)					

Structure Usage				
		Last	Now	Explanation of Condition
Channel General Rating		6	6	

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) (%)	55.6/55.6	Sufficiency Rating (Last/Now) (%)	58.2/56.0	Est. Repl. Yr	2031	Maint. Req. (Y/N)	No
Special Comments for Next Inspection	A level 2 should be completed since barrel hasn't been thoroughly inspected for 5 years as per Bim manual. However since pipe is only 20 years old and shape look good this is not recommended. 2 people may be required due to elbow at inlet and scour hole ponding water at outlet.		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							