Bridge Culvert Inspection

Bridge File Number	76997 -1 Bridge Culvert	Form Type	CUL1
Year Built	1997	Lot No.	4
Bridge or Town Name	GRANDE CACHE	Inspector Name	Russel Vanderschaaf
Located Over	GUSTAVS CREEK, 8.10.58.36, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	40:36 C1 4.543	Assistant Class	
Water Body Cl./Year		Inspection Date	22-Aug-2012
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	NE SEC 18 TWP 57 RGE 8 W6M	Data Entry Date	26-Sep-2012
Longitude, Latitude	-119:10:33, 53:55:49	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	24-Sep-2012
Contract Main. Area	CMA05	Dept. Reviewer Name	Steve Pasquan
Clear Roadway/Skew	12.4 / 20 deg. (RHF)	Dept. Review Date	04-Jan-2013
AADT/Year	1,220 / 2011 (A)	Follow-Up By	
Road Classification	RAU-211.8-110		
Detour Length (km)	425		

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	39.6	152X51	4.0	ROUND
Special Features		FLOOR ABR PLATES						
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		7	7	Curve South.
Vertical Alignment		6	6	TOP OF CREST CURVE - NO PASSING Southbound lane.
Roadway Width (m)	12.400			
Embankment		8	8	
Sideslope (__:1)	5.0			
(Height of Cover(m) : **2**)				
Guardrail (Y/N)	Yes			WIRE ROPE (3 LINES) WITH STEEL POSTS
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	8	
Collar		N	7	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	
Bevel End		N	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		N	7	
(Type : **CONCRETE**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	7	
Beavers (Y/N)	No			
Upstream End General Rating		**4**	**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-Aug-2012			
Special Features				
Special Feature		N	N	Gravel covered.
(Type : **FLOOR ABR PLATES**)				
Special Feature				
(Type :)				
Roof		N	7	Shape looks good.
Measured Rise (mm)				Couldn't measure due to gravel 0.6m deep.
Measured At Ring No.				est.
Sag (mm)	5			
Percent Sag	1			
Sidewall		N	7	
Measured Span (mm)	3065			
Measured At Ring No.	5			
Deflection (mm)	15			
Percent Deflection	1			
Floor		N	N	Gravel covered .
Bulge (mm)	0			
Measured At Ring No.	5			
Abrasion (Y/N)	Yes			
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)				2N Stagger
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		N	7	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			

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	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		4	4	Gravel 2.0m @ d/s end.
Icing (Y/N)	Yes			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		**N**	**7**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		
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	Buried by gravel .
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	2000			
Scour Protection		N	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		N	7	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**7**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		4	4	SW bank eroding.
HWM (m below Top of Culvert)				NO HWM VISIBLE
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	AGGRADING			Rocks go from 0m deep at R12 end to 2.0m deep at d/s end.
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**4**	**4**	

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) (%)	**55.6/77.8**	**Sufficiency Rating (Last/Now) (%)**	**48.1/62.1**	Est. Repl. Yr	2043	Maint. Reqd. (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	22-May-2014	Previous Inspection Date	18-Nov-2010		
Inspection Cycle (Default) (months)	21				
Comment					