Bridge Culvert Inspection

Bridge File Number	76750 -2 Bridge Culvert	Form Type	CUL1
Year Built	2005	Lot No.	4
Bridge or Town Name		Inspector Name	Russel Vanderschaaf
Located Over	TRIBUTARY TO MUSKEG RIVER, 8.10.58.31.3, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	40:34 C1 16.970	Assistant Class	
Water Body Cl./Year		Inspection Date	22-Aug-2012
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SE SEC 14 TWP 57 RGE 7 W6M	Data Entry Date	25-Sep-2012
Longitude, Latitude	-118:55:19, 53:55:36	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	10 / 15 deg. (RHF)	Dept. Review Date	04-Jan-2013
AADT/Year	1,590 / 2011 (A)	Follow-Up By	
Road Classification	RAU-210-110		
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	-	1810	SP	181.644	152X51	5.0,5.0,5.0	ROUND
Special Features		BARREL ELBOW						
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	S r/w	Gas	
Power	4 wire o/h North r/w	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	S. Curve, limited sight distance. No passing either lane.
Vertical Alignment		6	6	
Roadway Width (m)	10.000			
Embankment		N	4	Minor gullies North embankment, sloughing into d/s bevel end.-photo
Sideslope (__:1)	3.0			
(Height of Cover(m) : **24**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		S		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		N	7	
Heaving (mm)				
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	450			
Scour Protection		N	7	A jack 24
(Type : **CONCRETE**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	7	
Beavers (Y/N)	No			
Upstream End General Rating		**9**	**7**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1810, Type: SP**)				
Barrel Last Accessible Date	22-Aug-2012			
Special Features				
Special Feature		7	7	at ring 37
(Type : **BARREL ELBOW**)				
Special Feature				
(Type :)				
Roof		7	7	
Measured Rise (mm)	1786			
Measured At Ring No.	11			
Sag (mm)	24			
Percent Sag	1			
Sidewall		5	5	R* @ 10:00 700mmwx400mmd dent - probably from construction.
Measured Span (mm)	1830			
Measured At Ring No.	11			
Deflection (mm)	20			
Percent Deflection	1			
Floor		7	7	
Bulge (mm)				
Measured At Ring No.	11			
Abrasion (Y/N)	Yes			
Circumferential Seams		7	7	
Separation (mm)				
Longitudinal Seams		7	7	
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				2N
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		7	7	Minor superficial rust on strip of floor 400mm.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	POS			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1810, Type: SP**)				
Fish Passage Adequacy		X	X	
Baffle		7	7	Baffles at d/s end only.
(Type : **SPOILER**)				
Waterway Adequacy		X	X	
Icing (Y/N)	Yes			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**5**	**5**	

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	X	
Bevel End		N	7	
Heaving (mm)				
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)				
Scour Protection		N	7	Ajacks AJ24 protection.
(Type : **CONCRETE**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	7	
Beavers (Y/N)	No			
Downstream End General Rating		**9**	**7**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	Deg d/s.
Bank Stability		6	6	
HWM (m below Top of Culvert)				No HWM visible
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			Deg d/s
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**6**	**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) (%)	**55.6/55.6**	**Sufficiency Rating (Last/Now) (%)**	**73.8/70.1**	Est. Repl. Yr	2055	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection	Monitor North embankment.	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					