Bridge Culvert Inspection

Bridge File Number	06832 -1 Bridge Culvert	Form Type	CUL1
Year Built	1961	Lot No.	4
Bridge or Town Name	HALKIRK	Inspector Name	Jason Saly
Located Over	TRIBUTARY TO PAINTEARTH CREEK, 5.23.7, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	855:06 C1 9.299	Assistant Class	
Water Body Cl./Year		Inspection Date	16-Jun-2010
Navigabil. Cl./Year		Data Entry By	Jill Potts
Legal Land Location	NW SEC 13 TWP 39 RGE 16 W4M	Data Entry Date	01-Jul-2010
Longitude, Latitude	-112:11:18, 52:21:30	Reviewer Name	John O'Brien
Road Authority	Alberta Transportation (AIT)	Review Date	24-Jun-2010
Contract Main. Area	CMA21	Dept. Reviewer Name	Chris Black
Clear Roadway/Skew	9.6 /	Dept. Review Date	06-Jul-2010
AADT/Year	490 / 2009 (A)	Follow-Up By	
Road Classification	RCU-209-110		
Detour Length (km)	3		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	2120	SP	51.8	152X51	3.5	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	West side of road.	Gas	
Power	40m South crosses road.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		9	8	
Vertical Alignment		6	6	
Roadway Width (m)	9.600			
Embankment		6	6	
Sideslope (__:1)	2.0			
(Height of Cover(m) : **6.4**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**6**	**6**	

Upstream 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	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		5	5	
Heaving (mm)	300			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		5	5	Ingrown.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **250**)				
Scour/Erosion		5	5	
Beavers (Y/N)	No			
Upstream End General Rating		**5**	**5**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2120, Type: SP**)				
Barrel Last Accessible Date	14-Nov-2003			Access only from East end. Only first 10 rings inspected.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		5	5	Roof sagging at extensions (West). Est 100m, 5%. Rise at R5 = 2075, 45mm. At R6 = 2085, 35mm.
Measured Rise (mm)	2060			
Measured At Ring No.	2			2.8%
Sag (mm)	60			
Percent Sag	3			
Sidewall		5	5	Span measured @ R5 = 2195, 75mm. At R10 = 2205, 85mm.
Measured Span (mm)	2215			
Measured At Ring No.	2			4.5%
Deflection (mm)	95			
Percent Deflection	5			
Floor		N	N	Water covered.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	5	
Separation (mm)	0			
Longitudinal Seams		N	5	50% improper lap.
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				1N
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		N	6	
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			(Culvert installed with approach 600mm slope. 14/11/03)
Ponding (Y/N)	Yes			West half of pipe.

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2120, Type: SP**)				
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	Couple of rocks 300mm at ring 9.
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**5**	**5**	Based on inspection of East half of pipe.

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		W		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		5	6	
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		5	5	Ingrown.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **250**)				
Scour/Erosion		5	5	
Beavers (Y/N)	No			
Downstream End General Rating		**5**	**5**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		5	5	Minor bends U/S & D/S.
Bank Stability		5	5	Minor cut banks downstream.
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**5**	**5**	

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) (%)**	**55.9/55.7**	Est. Repl. Yr	2021	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	Tim Davies	Previous Assistant's Name	
Next Inspection Date	16-Sep-2013	Previous Inspection Date	22-Mar-2007
Inspection Cycle (Default) (months)	39		
Comment			