Bridge Culvert Inspection

Bridge File Number	77496 -1 Bridge Culvert	Form Type	CUL1
Year Built	1983	Lot No.	4
Bridge or Town Name	PEKISKO	Inspector Name	Garry Roberts
Located Over	TRIBUTARY TO HIGHWOOD RIVER, 2.13.27.34, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	40:10 C1 11.721	Assistant Class	
Water Body Cl./Year		Inspection Date	22-Jun-2011
Navigabil. Cl./Year		Data Entry By	Alyssa Boynton
Legal Land Location	NE SEC 21 TWP 17 RGE 6 W5M	Data Entry Date	13-Jul-2011
Longitude, Latitude	-114:45:42, 50:27:09	Reviewer Name	Tom Carey
Road Authority	Alberta Transportation (AIT)	Review Date	28-Jun-2011
Contract Main. Area	CMA28	Dept. Reviewer Name	Tim Davies
Clear Roadway/Skew	11 / -5 deg. (LHF)	Dept. Review Date	15-Jul-2011
AADT/Year	440 / 2010 (A)	Follow-Up By	
Road Classification	RAU-209-110		
Detour Length (km)	50		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	4482	4056	SPE	53	152X51	4.0	ELLIPSE
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		7	6	Crest over pipe. Lineham Creek. Curve South.
Vertical Alignment		6	6	
Roadway Width (m)	11.000			
Embankment		7	7	
Sideslope (__:1)	2.5			
(Height of Cover(m) : **6.2**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		E		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		X	X	
Collar		7	7	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	Below streambed

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		7	7	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection		7	7	Sparse at upper half at bevel. MIX OF 500 mm TO 1000 mm ROCK
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **800**)				
Scour/Erosion		7	7	Concrete apron at streambed at inlet
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): 4482, Rise (mm): 4056, Type: SPE**)				
Barrel Last Accessible Date	22-Jun-2011			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	Inward
Measured Rise (mm)	4080			
Measured At Ring No.	2			
Sag (mm)	24			
Percent Sag	1			
Sidewall		7	7	
Measured Span (mm)	4540			
Measured At Ring No.	2			
Deflection (mm)	58			
Percent Deflection	1			
Floor		6	6	50% ROCK COVERED, avg 400mm deep. Some CL 1 rock in barrel @ u/s end
Bulge (mm)	0			
Measured At Ring No.				Dents at haunches.
Abrasion (Y/N)	Yes			
Circumferential Seams		8	7	
Separation (mm)	0			
Longitudinal Seams		7	7	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	0			
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		5	5	Superficial corrosion @ waterline, and u/s bevel.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 4482, Rise (mm): 4056, Type: SPE**)				
Fish Passage Adequacy		7	7	
Baffle		6	6	10% abasion on baffles
(Type : **SPOILER**)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**7**	**7**	

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		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	800			
Scour Protection		8	8	1000 mm DIA ROCK @ SW
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **800**)				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**7**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		5	5	Curve at upstream end causes stream TO ENTER @ SE BANK WHICH IS ARMOURED WITH CLASS 3 ROCK & CONCRETE.
Bank Stability		7	7	
HWM (m below Top of Culvert)				No visible HWM (950619)
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	NONE			
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) (%)	**77.8/77.8**	**Sufficiency Rating (Last/Now) (%)**	**73.9/73.8**	Est. Repl. Yr	2033	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	Garry Roberts	Previous Assistant's Name			
Next Inspection Date	22-Mar-2013	Previous Inspection Date	04-Oct-2009		
Inspection Cycle (Default) (months)	21				
Comment					