Bridge Culvert Inspection

Bridge File Number	74569 -1 Bridge Culvert	Form Type	CUL1
Year Built	1989	Lot No.	3
Bridge or Town Name	STIRLING	Inspector Name	Jon Davies
Located Over	ETZIKOM COULEE, 11.9, WATERCRS-ST	Inspector Class	BR CLS B
Located On	61:02 C1 6.052	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	28-Mar-2013
Legal Land Location	SW SEC 6 TWP 7 RGE 18 W4M	Data Entry By	Lauren Korte
Longitude, Latitude	-112:26:20, 49:31:32	Data Entry Date	08-Apr-2013
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Garry Roberts
Contract Main. Area	CMA24	Review Date	07-Apr-2013
Clear Roadway/Skew	10 /	Dept. Reviewer Name	Tim Davies
AADT/Year	540 / 2012 (A)	Dept. Review Date	22-Apr-2013
Road Classification	RAU-209-110	Follow-Up By	
Detour Length (km)	6		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	6898	4224	RPA	21.3	152X51	4.0,5.0	ARCH
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power		Municipal	
Others	Fibre optic cable North ditch.	Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Intersection West
Vertical Alignment		9	9	
Roadway Width (m)	10.000			
Embankment		8	7	
Sideslope (__:1)	4.0			
(Height of Cover(m) : **0.6**)				
Guardrail (Y/N)	Yes			Mower damage at SW wingend
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction				North end.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	8	
Collar		8	8	
Wingwalls		8	8	
(Shape : **FLARE**)				
Cutoff Wall		N	N	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		7	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **450**)				
Scour/Erosion		7	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): 6898, Rise (mm): 4224, Type: RPA**)				
Barrel Last Accessible Date	21-Jan-2009			High water level and thin ice
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	(est)21- Jan -2009 PR 8 Viewed from ends, shape is good
Measured Rise (mm)	4224			
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		N	N	(Isolated rock dent centerline East wall - minor.) 21- Jan -2009 PR 7
Measured Span (mm)	6898			
Measured At Ring No.	5			
Deflection (mm)	0			
Percent Deflection				
Floor		N	N	(Average 300mm deep silt with 700mm water.) 21- Jan -2009
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	N	PR 8
Separation (mm)	0			
Longitudinal Seams		N	N	PR 8
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)	Yes			
Longitudinal Stagger (Y/N)	No			
Coating		N	N	(Minor superficial rust on isolated rock dent.)21- Jan -2009
Corrosion By Soil (Y/N)				
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): 6898, Rise (mm): 4224, Type: RPA**)				
Fish Passage Adequacy		8	8	
Baffle		X	X	
(Type :)				
Waterway Adequacy		9	9	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**N**	**N**	PR 8

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction				South end.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	8	
Collar		8	8	
Wingwalls		8	8	
(Shape :)				
Cutoff Wall		N	N	
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		7	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **450**)				
Scour/Erosion		7	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		6	6	Curves up & down stream
Bank Stability		5	5	Slumping U/S East bank 5m x 8m
HWM (m below Top of Culvert)				HWM not visible
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	AGGRADING			Rock 0.7m high @ U/S end.
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
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	2013	Replace wing end at SW				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**55.6/55.6**	**Sufficiency Rating (Last/Now) (%)**	**72.3/72.2**	Est. Repl. Yr	2045	Maint. Reqd. (Y/N)	Yes

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	Jon Davies	Previous Assistant's Name	
Next Inspection Date	28-Dec-2014	Previous Inspection Date	15-Jun-2011
Inspection Cycle (Default) (months)	21		
Comment			